Have We Reached the Finish Line? The Future of U.S.-Russian Nuclear Arms Control
Cory Welt
The Elliott School of International Affairs
The George Washington University

January 2015
Abstract

The hopes of the United States to negotiate another round of nuclear arms reductions with Russia sunk in 2014. Russia’s use of force in Ukraine and the U.S. determination that Russia had violated the terms of the 1987 Intermediate-Range Nuclear Forces (INF) Treaty made it impossible to secure Congressional support for another round of nuclear arms control. But well before these developments, Russia itself had rejected the U.S. overture, at least until the two states resolved their differences on missile defense and other issues related to their strategic balance.

There are ways out of this impasse, even if they are difficult to imagine at the moment. One is through concession: the United States could address Russian concerns on missile defense in exchange for further negotiated arms reductions. Another is through unilateral action: the United States could pursue major nuclear arms reductions on its own. A third is through coordination: the United States and Russia could agree to reevaluate the requirements for mutual nuclear deterrence in the contemporary context. None of these alternatives are likely in the near-term, but this does not mean we have reached the end of the road when it comes to nuclear arms reductions. The worsened state of U.S.-Russian relations does not make the challenge less relevant; on the contrary, it makes it even more vital to overcome.

About the author

Cory Welt is an Associate Research Professor and Associate Director of the Institute for European, Russian and Eurasian Studies at the George Washington University’s Elliott School of International Affairs. He is the co-director of the Program on New Approaches to Research and Security in Eurasia (PONARS Eurasia). He was an Adjunct Fellow at the Center for American Progress from 2012-2014.
Have We Reached the Finish Line? The Future of U.S.-Russian Nuclear Arms Control  
Cory Welt  
January 2015

U.S. hopes to negotiate another round of nuclear arms reductions with Russia as a follow-up to the successful 2010 New Strategic Arms Reduction (New START) Treaty sunk in 2014. In June the year before, President Obama declared the United States’ readiness to reduce its deployed nuclear arsenal one-third beyond New START-levels through negotiated cuts with Russia. But Russia’s use of force in Ukraine and the U.S. determination that Russia has violated the terms of the 1987 Intermediate-Range Nuclear Forces (INF) Treaty make it impossible to secure Congressional support for another round of nuclear arms control, even if the administration were inclined to continue trying.

But a waning enthusiasm in the United States for negotiating further arms reductions with Russia is not the main reason for the failure to jumpstart a “New START II.” Well before the Ukraine crisis or the U.S. announcement of a Russian INF treaty violation, Russia itself had rejected the U.S. overture, at least until the two states resolved their differences on missile defense and a host of other issues related to the strategic balance between them.

There are ways out of this impasse, but for now they are difficult to imagine. One is through concession: the United States could address Russian concerns on missile defense in exchange for further negotiated arms reductions. This, however, would require the conclusion of a new anti-ballistic missile treaty, something that would have been difficult enough to achieve even before the Ukraine crisis and Russia’s reported IMF violation. In the current climate, it would be near impossible.
Another is through unilateral action: the United States could pursue major nuclear arms reductions on its own, whether on the assumption that Russia will eventually calculate it in its interest to follow suit or that the security of the United States and its allies does not require nuclear parity. This approach, however, is nearly as much a non-starter as the first. Unilateral reductions were unpopular before Russia’s use of force against Ukraine. Given Moscow’s new bellicosity, it will be difficult to persuade skeptics that a nuclear imbalance that ends up favoring Russia is an acceptable strategic status quo, or that Russia can eventually be expected to follow the U.S. example and draw down its own nuclear arsenal unilaterally.

A third is through coordination: the United States and Russia could agree to reevaluate the requirements for mutual nuclear deterrence in the contemporary context. Specifically, they would need to agree to forgo planning for a “disarming” preemptive nuclear first strike against the other’s nuclear arsenal. This, in turn, would pave the way for nuclear employment strategies that rely on considerably lower numbers of weapons. Accepting that mutual deterrence requires lower thresholds of destruction does not require that the United States and Russia become friends. The fact that nuclear strategy is again becoming an element of concern amid the worsening state of U.S.-Russian relations could have the silver lining of prompting both states to undertake a long overdue review of their Cold War-era nuclear doctrines and to update them.

The outlook for further nuclear arms reductions in the near-term is grim. For now, the United States may have to accept New START limits as the maximal achievable cuts for now and focus on implementing – and preserving – the New START treaty, as well as the older INF Treaty. In this newly tense climate, the future of neither treaty can be taken for granted.

This does not mean we have reached the end of the road when it comes to nuclear arms reductions, however. Nuclear modernization efforts underway in both Russia and the United
States signal an intent in both countries to improve the quality of the strategic balance, not to engage in a new arms race. The challenge is to find a way to couple Russian and American notions of mutual deterrence with lower numbers of nuclear weapons. The worsened state of U.S.-Russian relations does not make this challenge less relevant. On the contrary, it makes it even more vital we overcome it.

**U.S.-Russian nuclear arms reductions**

The 2010 New Strategic Arms Reduction (New START) Treaty was the hallmark accomplishment of the U.S.-Russian “reset” that the Obama administration initiated in 2009.1 The agreement slashed the number of strategic (i.e., long-distance) nuclear warheads Russia and the United States can deploy by February 2018 to 1,550, 30 percent lower than the limit established by the 2002 Strategic Offensive Reductions Treaty (SORT). It also cut by over half the number of strategic delivery vehicles (ICBMs, SLBMs, and strategic bombers) the two states are allowed to possess (800, out of which 700 may be deployed at any time).

As of September 2014, the United States and Russia are both just 6 percent over the treaty’s warhead limit and 14 percent over the limit on total delivery vehicles (13 percent over and 25 percent under, respectively, the limit on deployed delivery vehicles).2 New START also establishes a system of data transparency and verification. The United States and Russia each conduct up to 18 onsite inspections per year and have exchanged a total of over 7,500 data notifications.3

New START is one in a line of U.S.-Russian strategic arms control agreements that have been negotiated on the American side by Republican and Democratic administrations with bipartisan support. President George H.W. Bush signed the START I treaty with Soviet President
Mikhail Gorbachev in 1991, the year the Soviet Union collapsed; U.S. and Russian governments (along with Belarus, Kazakhstan, and Ukraine) reaffirmed it the following year. Presidents Bill Clinton and Boris Yeltsin signed the START II treaty in 1993, but it never entered into force. In its stead, Presidents George W. Bush and Vladimir Putin in 2002 signed the SORT Treaty—albeit with no counting rules or verification measures. Eight years later, Presidents Barack Obama and Dmitry Medvedev signed New START, the true successor to START I.

Much as the Bush and Clinton administrations viewed START I, the Obama administration and the arms control community have perceived New START to be “one step on a longer journey” rather than the final stage of the post-Cold War nuclear arms reduction process.

Indeed, for arms control advocates, much remains to be done. First, like the strategic arms treaties before it, New START mandates reductions only in deployed nuclear warheads. When it comes to total weapons, both states are free to accumulate as many bombs as they like. While the total number of U.S. nuclear warheads has declined dramatically since the end of the Cold War, the United States and Russia each still retain in the vicinity of at least 4,000-5,000 warheads.

Second, New START does not impose limits on nonstrategic (or tactical) nuclear weapons – lower-yield weapons developed for shorter-distance (theoretically battlefield) deployment. The United States is estimated to possess around 500 nonstrategic weapons (just over 10 percent of its current arsenal), some 200 of which are located on the territory of NATO allies in Europe. This represents an approximately 90 percent reduction since the end of the Cold War. Nonstrategic weapons are estimated to constitute a far greater share of the Russian stockpile (around 45 percent, or some 2,000 warheads).

6
Finally, New START does not go as far as it could to limit even deployed strategic arms. In a June 2013 speech in Berlin, President Obama announced new “presidential guidance” on the United States’ nuclear employment strategy. He declared that “we can ensure the security of the United States and our allies and partners and maintain a strong and credible strategic deterrent” while reducing deployed strategic nuclear weapons by up to one-third from New START levels (to under 1,100). This is an upper boundary – many argue that the U.S. nuclear deterrent would be resilient with even greater reductions.

A new START II?

Up until this year, cooperating with Russia on further nuclear arms reductions remained a priority of the Obama administration. In his 2013 Berlin speech, President Obama announced his administration’s intent “to seek negotiated cuts with Russia,” as well as to “work with our NATO allies to seek bold reductions in U.S. and Russian tactical weapons in Europe.” A June 2013 Department of Defense report to Congress on the strategy notes that while “the need for numerical parity between the two countries is no longer as compelling as it was during the Cold War, large disparities in nuclear capabilities … may not be conducive to maintaining a stable, long-term strategic relationship, especially as nuclear forces are significantly reduced.”

Consequently, the Obama administration has sought Russia’s agreement for a new round of arms reductions. The exact mechanism remains open, whether through a follow-on treaty (a “New START II”) or amendments to New START, which itself remains in effect through 2021 (for verification and monitoring), with limits to be reached by 2018. But whatever the mechanism for bilateral arms control, U.S. advocates of further arms reductions were forced to confront a major challenge even before the Ukraine crisis. The Russian
government simply did not want to pursue another round of talks at this time. The Putin administration has consistently argued that any further negotiations first require implementation of New START (through 2018), as well as resolution to differences on missile defense and other issues concerning the strategic balance. The Russian Ministry of Foreign Affair’s director of security and disarmament Mikhail Ulyanov made this clear in December 2013, noting that “in the last 10 to 15 years now is the most inopportune time to talk about further reductions…. [W]e need to create conditions that will make it possible to move forward.”

Some of Russia’s objections are more manageable than others. First, Moscow has said that it is too early to negotiate another nuclear arms treaty. In the fall of 2012, Russian Deputy Prime Minister Ryabkov said Russia was “exceptionally satisfied” with the implementation of New START but that it should be fully implemented before considering another round. Speaking at a United Nations high-level meeting on disarmament in September 2013, Foreign Ministry official Alexei Karpov reasserted the importance of fulfilling the terms of New START before embarking on a new agreement. One might consider granting the point – successful arms control treaties have been spaced apart by some 8 to 10 years.

That said, a new round of arms control talks would need a large time span for success. They would be more complex – and protracted – than the negotiations that led to New START, which itself was not an easy achievement and did not resolve all outstanding issues. The New START Treaty entered into force almost two years after the two presidents agreed to open negotiations in April 2009. It is unlikely that the United States and Russia would be able to negotiate and secure ratification of a successor treaty in a similar timeframe. To be ready for a new round of reductions after reaching New START-levels in 2018, preparatory work for a follow-on agreement would have to begin in earnest by 2016 at the latest.
Second, Russia has said it is concerned about the closing gap between shrinking U.S. and Russian arsenals and those of other nuclear powers. At the September 2013 UN disarmament meeting, for instance, Karpov stressed that the time had come for arms control talks to take into consideration the arsenals of other nuclear powers.\textsuperscript{16}

The United States supports multilateral arms control negotiations but as “a more long-term goal.”\textsuperscript{17} To Washington, the considerable gap between U.S. and Russian arsenals – which combined still account for over 90 percent of the world’s nuclear weapons – and those of other states leaves ample room for at least one more round of bilateral nuclear arms talks.

That said, the United States has actively supported an ongoing dialogue of the five nuclear-weapon states (the “P5”) to increase transparency and confidence on nuclear matters and to address all three “pillars” of the Nuclear Nonproliferation Treaty: nonproliferation, the peaceful use of nuclear energy, and also the commitments P5 states themselves have adopted to work toward eventual disarmament. The P5 process has included high-level conferences and expert meetings, as well as some initial concrete steps, including ongoing work on a standardized nuclear “glossary” and efforts to strengthen monitoring of the Comprehensive Test Ban Treaty, or CTBT (even though the United States has yet to ratify this treaty).\textsuperscript{18}

Third, and more difficult to address, Russian officials have retained strong reservations about conducting further rounds of nuclear arms reductions divorced from other strategic considerations. Their argument is that U.S. security policy and technological advances can lead to a point at which U.S. or NATO missile defense systems and conventionally-armed precision-guided missiles, alongside reduced numbers of deployed nuclear weapons, would undermine strategic stability, “a state of affairs in which countries are confident that their adversaries would not be able to undermine their nuclear deterrent capability.”\textsuperscript{19} Russian officials speculate that
sufficiently advanced U.S. or NATO missile defense systems could one day boost U.S. confidence that it could launch a nuclear or, perhaps more realistically, conventional attack against Russia without fear of nuclear reprisal. They similarly say that sufficiently advanced conventionally-armed precision-guided missiles intended to quickly strike distant targets (usually referred to under the umbrella of Conventional Prompt Global Strike, or CPGS) might one day increase the United States’ confidence that it could carry out a successful (non-nuclear) first strike against Russia’s nuclear arsenal. Combined, Moscow says, these two technological advances threaten to one day have a powerful (and, to Russia, dangerous) multiplier effect on U.S. warfighting confidence.

This concern is magnified by a related concern, which Russian officials do not publicly play up, about the general survivability of Russia’s nuclear arsenal. That arsenal remains heavily reliant on immobile ICBMs that are easier to target than mobile ICBMs or SLBMs. Russian officials would seek to improve upon the survivability of the country’s arsenal no matter its size. However, dwindling numbers will make this concern increasingly acute, if considered in conjunction with technological advances that give the United States strategic advantages.

Russia has sought to address this latter concern through an ambitious plan of nuclear modernization. The plan aims for a deployed arsenal in line with New START-levels; last December, the commander of Russia’s strategic rocket forces emphasized that Russia needed around 1,500 deployed warheads in its strategic arsenal. However, the modernization plan is also designed with survivability in mind, with greater reliance on mobile ICBMs and SLBMs. At least until this program is complete, no sooner than 2020, concerns about weapons survivability will reinforce Russian reluctance to pursue further reductions.
Russian concerns about U.S. advantages that could tip the nuclear balance are not new. Russian objections to U.S. missile defense plans almost scuppered negotiations on New START. In the end, the United States agreed to include in the treaty’s preamble a general acknowledgement of “the interrelationship between strategic offensive arms and strategic defensive arms.”

Russia added a unilateral statement reserving the right to withdraw from the treaty if U.S. missile defenses evolved to the point where they threaten Russia’s “strategic nuclear force potential.” The treaty also included consideration of CPGS, noting its impact on strategic stability and going so far as to impose universal limits on ICBMs and SLBMs, regardless of whether the missiles are tipped with nuclear or conventional warheads. However, the treaty is silent about non-ballistic and shorter-range technologies that have since become the focus of CPGS.

Finally, Russian authorities have brought other concerns into the mix, including the United States’ failure to ratify the CTBT and prospects for the weaponization of space. They also say the United States must withdraw all its nuclear weapons from Europe before it will agree to even consider negotiations on nonstrategic arms reductions (on the principle that all nuclear powers should deploy weapons exclusively on their home territory).

Getting around missile defense?

While Moscow has had multiple reservations regarding a new agreement on nuclear disarmament, until the Ukraine crisis at least concerns about missile defense had been paramount. For years, Russian officials insisted that without a deal on missile defense, Russia would not negotiate a new nuclear arms control agreement. Reaching an understanding on
missile defense may not have been a sufficient condition for a new arms control agreement, but it did appear a necessary one.

Strategic missile defense has been an intermittent point of contention between the United States and Russia. During the Cold War, the United States accepted substantial mutual limits on missile defense deployments based on its own concerns about strategic stability. The 1972 Anti-Ballistic Missile Treaty permitted the Soviet Union and the United States one missile defense installation each (originally two) armed with 100 interceptors to protect either the capital city or an ICBM deployment site. While Russia maintained a missile defense system around Moscow, the United States quickly gave up on its own system, dismantling it at Grand Forks, North Dakota already in 1976.

Dissatisfied with a reliance on deterrence alone to forestall nuclear attack, the Reagan administration later toyed with the idea of pursuing a comprehensive space-based missile shield (the Strategic Defense Initiative, or SDI, derisively known as “Star Wars”) but ultimately dismissed the heavily-criticized idea as infeasible. Successive post-Cold War U.S. administrations have contemplated more seriously the continued development of missile defense systems with the aim of defending against a limited nuclear strike by a rogue state or actor. In the 1990s, the Clinton administration secured Russian agreement to a “demarcation” of the ABM treaty that would expressly allow for the development of shorter-range (“theater”) missile defense with ranges under 3,500 kilometers. The Senate never ratified the necessary amendments, however, as it waited for Russian ratification of START II and momentum mounted to withdraw altogether from the ABM treaty.

September 11 was the death-knell for the United States’ weakening commitment to missile defense limitations. The United States withdrew from the ABM treaty in 2002 and
launched development of a long-range (i.e., ICBM-intercepting) missile defense program on U.S. territory (in California and Alaska). President Bush planned to establish a “third site” for long-range missile defense (against a potential Iranian ICBM attack) in Poland and the Czech Republic. The plan met with vocal Russian opposition, and the Obama administration ultimately rejected it, asserting a mismatch between the program’s focus on long-range interceptors and the intermediate range of the foreseeable missile threat from Iran. In its stead, the administration launched a new program, the “European Phased Adaptive Approach” (EPAA), based on what it said was a more proven system of sea- and land-based interceptors designed at first to counter only intermediate- and shorter-range missiles headed toward targets in Europe, including U.S. troops and facilities. In May 2012, NATO declared that the alliance had achieved an “interim” missile defense capability, with the EPAA as its main element. European allies were encouraged to not only host EPAA assets but also make their own contributions to an integrated missile defense system. The land-based interceptors are to be deployed in Romania next year and in Poland by 2018.

For the United States, it does not seem like it should be so difficult to achieve an understanding with Russia on missile defense – and, consequently, on further nuclear arms reductions. Russian expressions of concern that missile defense will undermine strategic stability have little to do with the state of missile defense planning and technology today. In March 2013, the Obama administration cancelled the fourth phase of the EPAA that was intended to develop interceptors that could theoretically target ICBMs. But even if this phase had not been cancelled and development were successful, the interceptors at their planned speed would not have been located properly to intercept a Russian ICBM.
That said, experts note that *U.S.-based* missile defense assets have at least a theoretical potential to intercept ICBMs. U.S. ground-based interceptors (GBI) in Alaska *might* be able to intercept Russian ICBMs. Building a new missile defense facility on the East Coast – one recommendation of a September 2012 National Research Council study and for which Congress mandated a site study in 2013 – would increase the United States’ hypothetical ability to intercept ICBMs fired at the continent. So too would fourth-phase EPAA interceptors, if they were to be developed and located at sea off the United States’ eastern and western coasts.

However, the impact of this theoretical potential is still too slight to have an impact on Russia’s nuclear deterrent. First of all, the prospects of building the East Coast facility are not very high. While defense officials have said the site would “add operational capability,” they also have noted that it would be “extraordinarily expensive,” that the East Coast is already “well protected,” and that other investments will lead to “more cost-effective near-term improvements” in the existing missile defense system.

Second, the total number of missile defense interceptors (currently 30, with another 14 announced) pale in comparison with the hundreds (if not thousands) of missiles Russia could launch at the United States, even taking into consideration another round of arms reductions.

Finally, U.S. and Russian officials and experts agree that U.S. long-range missile defenses remain vulnerable to technical “countermeasures” that Russia can easily implement to cause interceptors to miss their target.

U.S. missile defense thus does not endanger strategic stability. Unable to assure protection against a Russian nuclear strike, existing U.S. missile defense technologies and plans cannot alter U.S. perceptions of strategic stability in a way that would encourage the United States to pursue policies with no regard for Russia’s nuclear deterrent.
So, then, will it ever be possible to achieve mutual understanding on missile defense and, hence, pave the way to another round of negotiated nuclear arms reductions?

Occasionally, optimism has seemed warranted. Before the Ukraine crisis, the Obama administration consistently stated that missile defense cooperation was a priority in its relations with Russia. The administration was willing to make a political commitment (a prerogative of the executive branch) that the U.S. missile defense system is not, and will not be, directed against Russian missiles. This would reinforce the commitment NATO member heads of state made at the 2012 NATO Summit that “NATO missile defense is not directed against Russia and will not undermine Russia’s strategic deterrence capabilities.”

The administration also reportedly offered to negotiate an agreement with Russia that at least would provide for greater transparency in missile defense plans. While no details were public, Stephen Pifer of the Brookings Institution laid out what a transparency regime might look like: formalized notifications regarding location, numbers and type of interceptors, radars, launch systems, and future development plans, as well as on-site technical observations. Pifer also proposed making any agreement on missile defense cooperation temporary, to allow parties to easily withdraw if they are dissatisfied with the other side’s plans.

More ambitiously, the United States and NATO called for the establishment of institutional cooperation with Russia on intermediate and shorter-range missile defense. NATO officially proposed to establish two joint NATO-Russia centers for data-sharing and planning and operations, the latter to include preplanned protocols on launch decisions. In this scheme, each side would retain its own chain of command and responsibility to protect its own territory. The Obama administration called this a potential “game-changer” in U.S.-Russian relations.
Around the same time, Russian experts and officials began to question Russia’s stance on missile defense. In 2011, Russia’s chief strategic ballistic missile designer Yuri Solomonov made waves when he called European missile defense “a completely made-up threat [against Russia] that never existed, doesn’t exist, and will not exist.” Former Secretary of Defense Chuck Hagel’s March 2013 announcement of the cancellation of Phase IV of the EPAA subsequently appeared to provide a concrete opening for discussion; shortly after, Russian Minister of Defense Sergei Shoigu called Hagel to congratulate him on his appointment and expressed a willingness to “restart regular consultations” on missile defense and other issues. Two long-time advocates of missile defense cooperation in Russia, Institute of USA and Canada Director Sergey Rogov and retired former strategic missile commander Viktor Yesin, also insisted that it was time to stop “scaring ourselves with American omnipotence.” Even Russian officials became more openly dismissive of U.S. missile defense: deputy prime minister Dmitry Rogozin, frequently outspoken in his antagonism toward NATO, insisted in April 2013 that U.S. missile defense plans posed no threat to Russia (or, for that matter, anyone else).

Unfortunately, none of this led to a breakthrough on missile defense, even before the Ukraine crisis. Despite U.S. policy shifts and proposals that went a long way toward meeting Russian concerns, Moscow continued to insist that agreement depends on “legally-binding guarantees” against the development of U.S. missile defenses that could intercept Russian ICBMs – in other words, a new ABM treaty. It said that only this – and/or full operational integration that would make Russia an equal decision-maker on U.S. and NATO missile launches (and vice-versa) – could bridge differences over missile defense.

In the end, none of the proposals by the United States or NATO, however constructive, addressed Moscow’s bottom line—that advances in research and development might eventually
lead to a U.S. missile defense program that, combined with CPGS, could defend against at least a limited Russian nuclear strike and, therefore, encourage more aggressive U.S. behavior toward Russia and, conceivably, its own first nuclear strike. Until Russia forgoes this objection, whether through improvements in its own technologies or adjustments to its own risk assessments, its insistence on missile defense limitations will remain a convenient justification for postponing further nuclear arms reductions.

**Reaching the finish line: considering the alternatives**

Russia’s insistence on a new missile defense treaty leaves limited paths to further nuclear arms reductions. Two of these include consenting to such a treaty or conducting unilateral U.S. reductions. Before the Ukraine crisis and Russia’s reported INF violations, neither of these options were very likely, however. In the current context, they will be even more difficult to contemplate. An alternative – and potentially more appealing route – would be to coordinate mutual shifts in U.S. and Russian nuclear doctrine in a way that would justify nuclear arms reductions for both states – regardless of the state of their relationship.

*A new missile defense treaty*

The conclusion of a new missile-defense treaty with Russia has and will continue to face considerable resistance in the United States. The U.S. government has pushed against missile-defense limitations as far back as the 1980s. Given the diverse nature of post-Cold War nuclear threats and evolving technologies, U.S. officials have not been keen to limit the United States’ ability, however well into the future, to defend itself from missile threats that could have a variety of return addresses. There is also little appetite to accept limits from Russia on U.S.
national security concerns that have nothing to do with Russia. As U.S. Acting Undersecretary for Arms Control and International Security Rose Gottemoeller said in October 2013, the United States “cannot and will not accept limitations on our ability to defend ourselves, our allies, and our partners…”

The fact remains, however, that U.S. policies that have nothing to do with Russia, coupled with changing technical capabilities, could potentially impact Russia. While the desire to avoid an agreement that imposes missile-defense limitations on the United States is understandable, so too has been the effort among advocates of further nuclear arms reductions to seek ways to address Russia’s missile defense objections in ways that do not limit the ability of the United States to defend itself, its allies, and its partners – if it can lead to greater arms reductions.

Thus, one potential way forward would be a new, if limited, missile-defense treaty with Russia. For the United States, such a treaty would have to allow – as would have the 1997 demarcation of the ABM Treaty – intermediate-range missile defense. It also would have to allow the United States and Russia the right to employ such missile defenses jointly with their allies (all the moreso if Russia were to withdraw from the INF Treaty). Finally, it might have to accommodate existing and projected numbers and locations of U.S.-based long-range interceptors, even if it included certain overall long-range limitations. In addition, it could include measures like those Pifer has proposed for missile defense transparency and for a limited timeframe, which would enable signatories to reassess the desirability of the agreement after ten years or so. Given projections of nuclear threats to the United States, as Pifer has noted, such an agreement “would not prevent the United States from doing anything that it plans to do over the next decade in the field of missile defense.”
In pursuing such a treaty, however, advocates would have to keep their eye on the prize: securing Russian willingness to negotiate another round of nuclear arms reductions. Readiness to negotiate a new missile-defense treaty would have to be premised on the expectation that a new treaty would be coupled with a new round of nuclear arms reductions, even in the absence of a final resolution to other Russian concerns, including on CPGS and the arsenals of other nuclear powers.

Both the Ukraine crisis and Russia’s reported INF violations have reinforced opposition to such a treaty in the United States. But missile defense in the post-Cold War era has never been designed to protect the United States or its allies from potential Russian nuclear strikes or to bolster our freedom of movement with respect to Russia. A missile defense treaty – like the 1972 ABM Treaty – is not a document that a state negotiates with its friend. The current downturn in Western-Russian relations is thus not a reason to exclude such a treaty from consideration.

Unilateral reductions

Advocates of further nuclear arms reductions may not wish to go down the unrewarding road of trying to persuade policymakers to conclude a new missile defense treaty with Russia. If not, however, they may need to accept the fact that another round of negotiated arms reductions are not possible at this time.

One alternative is to promote unilateral U.S. reductions that would be in line with the 2013 presidential guidance on U.S. nuclear employment strategy. Since the Ukraine crisis, this is the direction in which a number of leading arms control advocates have swung. Primarily, they have set their sights on expensive U.S. nuclear modernization plans that even government-commissioned assessments have argued will run hundreds of billions of dollars or more over the
next few decades. These plans could be downsized in ways that would not replenish the entire aging stockpile of 3,000-plus undeployed warheads while meeting New START limits of 1,550 deployed warheads.53

But even in deployed nuclear arms reductions, there are no real strategic reasons for insisting on parity with Russia. As nuclear expert Elbridge Colby has argued, “numerical parity” is not “relevant to strategic stability…[s]o long as the two sides deploy forces sufficient in size to conduct devastating retaliatory strikes and a substantial set of limited options.”54 A May 2012 DOD report to Congress on Russian nuclear forces explicitly rejected the significance of parity, insisting that at New START-levels at least, Russia will “not be able to achieve a militarily significant advantage by any plausible expansion of its strategic nuclear forces…primarily because of the inherent survivability of the planned U.S. strategic force structure….55 (Unlike Russia, the United States has long been confident in the survivability of its nuclear arsenal.) The nuclear employment strategy, in stating that the United States can achieve its goals “while safely pursuing up to a one-third reduction in deployed nuclear weapons,” also does not state that this “safe pursuit” necessitates reciprocal Russian reductions.

Advocates of far-reaching U.S. nuclear reductions also do not insist that their recommendations require mutual cuts. In proposing a limit of 900 total nuclear weapons for the United States, the Global Zero U.S. Nuclear Policy Commission report called unilateral cuts a “less good” approach but said that “a strong case can nevertheless be made that unilateral U.S. deep cuts and de-alerting coupled with strengthened missile defenses and conventional capabilities would not weaken deterrence….”56 A 2010 study by two Air Force professors and division chief of Strategic Plans and Policy argued that around 300 nuclear weapons were
sufficient for the United States to maintain a strong nuclear deterrent, and that “it does not matter if Russia…follows suit.”

Unilateral U.S. reductions could conceivably achieve the goal of bilateral cuts. U.S. reductions can dilute Russia’s strategic need to maintain its arsenal at New START levels as it would reduce the number of objects Russia would itself need to target with its own nuclear weapons. The fact that Russia’s peer competitor had drawn down its arsenal could also reduce the pressure on Moscow to retain a larger nuclear arsenal to project global and regional power, as well as make it harder to justify financially.

Finally, while unilateral drawdowns are not verifiable, the United States and Russia could at least renew the transparency and verification regimes of New START after 2021, even if they did not negotiate further arms reductions.

Of course, as with a new missile defense treaty, the pursuit of unilateral reductions is not a problem-free option. The nuclear employment guidance itself is premised on the assumption of negotiated cuts. The June 2013 DOD report to Congress on the strategy stresses that the United States “continue[s] to place importance on Russia joining us as we move to lower levels of nuclear weapons.” The next month, then-Deputy Secretary of Defense Ashton Carter underlined the point, emphasizing that the goal of U.S. reductions is to get Russian reductions, as well as to promote nonproliferation in other states, and “you miss that opportunity if you just do it yourself.…” Advocates of global nuclear arms reductions, too, would have to acknowledge that unilateral cuts will only really be effective if they prompt matching Russian reductions, a goal that would not be assured.

Unilateral implementation will also meet with strong political opposition. The administration does not need congressional approval to unilaterally reduce the U.S. nuclear
arsenal. It would, however, still have to deal with the potential political fallout of slashing the arsenal when Russia refuses to do so, has invaded and annexed part of a neighboring country, and is violating and could potentially withdraw from the INF Treaty. This is on top of the fact that the fate of the Iranian and North Korean nuclear weapons programs remains uncertain; the scope of China’s nuclear ambitions remains unclear; and the specter of nuclear weapons falling into the hands of extremist governments in South and Central Asia still provokes concern. Upon issuance of the guidance, over half of Senate Republicans sent a letter to Secretary of State John Kerry expressing firm opposition to any reductions, whether unilateral or in parallel with Russia, outside of a treaty that would require Senate approval.62

_Promoting a paradigm shift_

There is another potential route to greater nuclear arms reductions: mutual shifts in U.S. and Russian nuclear doctrines. The two countries’ nuclear doctrines currently constrain reductions beyond a certain point, since they require arsenals large enough not only to survive a nuclear strike but to carry out a “disarming” preemptive first strike against the other’s nuclear arsenal. These doctrines might accommodate numbers lower than New START levels but in an asymmetrical way that discourages further Russian reductions. A mutual shift in doctrine, by contrast, could lead both countries to nuclear strategies that allow for symmetrically smaller arsenals.

Reflecting the concept of “mutually assured destruction” (or MAD) that emerged in the Cold War, both the United States and Russia still plan for nuclear arsenals that enable them to retain “devastating” retaliatory (“second-strike”) capability in the aftermath of an adversary’s attempt at a “disarming” first strike, one that would preemptively seek to destroy as many of the
other’s nuclear weapons as possible. Considerable debate exists regarding the number and kind of nuclear weapons the United States and Russia need to retain such “devastating” retaliatory capabilities. These calculations include an assessment of the effectiveness of a first strike (i.e., how many target warheads would likely survive) as well as the level of retaliatory damage that would be necessary to inflict on an attacking state in order to deter it from contemplating such a strike in the first place. During the Cold War, strategists and policymakers assumed relatively high tolerance levels for nuclear attack and, consequently, a need to retain high numbers of (survivable) weapons to achieve deterrence. Today it is accepted that tolerance levels for nuclear attack are lower – and hence require less surviving weapons as an effective deterrent – than were calculated during the Cold War, when the United States and the USSR were embroiled in existential conflict.

There is, however, more to their nuclear employment strategies than that. U.S. and Russian nuclear postures do not stem from MAD alone. They also stem from doctrines that allow for the need to oneself launch a “disarming” first strike, ostensibly to prevent (or limit the damage of) a feared nuclear attack by the other. Such a doctrine – that, in effect, requires planning to destroy all the other state’s nuclear weapons, infrastructure, and command-and-control facilities in a preemptive strike – requires what even for MAD is an excessively large arsenal.

That said, existing U.S. doctrine, at least, does not require as many weapons as the United States currently deploys. The 2013 presidential guidance says the United States is able to reduce deployed weapons down another third. This does not imply a change in doctrine. It just means that the United States needs less nuclear weapons to carry out a “disarming” first strike, replacing them in part, and increasingly over time, with conventional weapons.
This change in assessment, however, has the unintended consequence of reinforcing Russian objections to greater nuclear cuts. While the United States has determined it can deploy less nuclear weapons, this is because it believes it has improved means to achieve a “disarming” first strike. For Russia, it is not too much of a stretch to link this evolution of U.S. strategy to the eventual development of a robust and increasingly tempting combination of nuclear weapons, conventional weapons, and missile defense, all while Russia is compelled to retain a more traditional nuclear deployment (with a higher number of nuclear weapons) to achieve the same ends.

If, on the other hand, the United States and Russia were to disavow the objective of a “disarming” first strike, then they both would have a more clearly justifiable path to another round of nuclear arms reductions. Both could plan for smaller nuclear arsenals that are sufficiently survivable to deliver “devastating” second nuclear strikes; such planning would not require Russia to retain more nuclear weapons than the United States.

In theory, the United States does not need to wait for Russia to change its doctrine. In recent years, there have been a number of calls to reevaluate U.S. nuclear doctrine to reject expansive nuclear objectives including a “disarming” first strike. The new presidential guidance on U.S. nuclear employment strategy specifically directs the Department of Defense to focus planning “on only those objectives and missions that are necessary for deterrence in the 21st century.” Noting the “significantly diminished possibility of a disarming surprise nuclear attack,” the guidance suggests a scaling down in the number of nuclear weapons required to deliver a “devastating” retaliatory second-strike while downplaying (though not rejecting) the need to plan for one’s own disarming first strike. The next step would be to dispense with the need for a “disarming” first strike altogether, paving the way for a more dramatic reassessment
of U.S. nuclear employment needs below the 1,100 or so weapons called for in the 2013 guidance.

The United States is unlikely to change its doctrine unilaterally, however. As the Federation of American Scientists’ Hans M. Kristensen and co-authors put it back in 2009, surrendering the objective of a disarming first-strike against Russia “will be particularly difficult politically because it will appear to be a choice to deliberately leave the nation vulnerable” – even if such an objective is unrealistic (in that it would likely fail) or overkill (if the objective is to deter attack). In the contemporary context, it will be even more difficult for any U.S. government to formally withdraw the threat of a disarming first-strike against Russia if Moscow refused to reciprocate.

If, however, the United States and Russia were to agree to both change their doctrines, then this could open the path to another round of nuclear arms reductions. The current climate may not lend itself to such a doctrinal climbdown, but it also does not exclude one. The fact that nuclear strategy is again becoming an element of Western-Russian relations can at least help encourage consideration of the need to update U.S. and Russian nuclear doctrines for a contemporary context. Even as opponents, the United States and Russia can come to accept a new understanding of the requirements for mutual nuclear deterrence and, hence, nuclear arsenals.

**No more nuclear reductions for now?**

With a new missile defense treaty, unilateral nuclear cuts, and mutual doctrinal shifts all unlikely in the near term, advocates of further nuclear arms reductions may need to accept that New START reductions are the most that can be achieved at this time. Accepting the status quo
does not mean forsaking the goal of further nuclear arms reductions. But it does mean acknowledging that what President Obama said in 2009 when he made nuclear arms reductions a major element of his foreign policy – that the goal of “a world without nuclear weapons…will not be reached quickly” – applies even to the more modest goal of another round of nuclear arms reductions.\footnote{71}

This also happens to be the path of least resistance. Many U.S. politicians and experts join Russia in opposing further reductions beyond New START-levels. Their numbers have almost certainly grown since Russia’s invasion of Ukraine and reported INF treaty violations. Detractors argue that further drawdowns will weaken the United States’ nuclear deterrent, whether toward Russia or other states and actors.\footnote{72} And while the cost of maintaining the nuclear arsenal is often invoked as justification for reducing its size, even Obama administration officials themselves have said the savings achieved by a one-third drawdown are not really that significant.\footnote{73} Arguments against further drawdowns would persist even if Russia were willing to enter into new arms control negotiations. In the absence of this willingness, and especially in the contemporary context, they are unavoidable.

This does not mean that further reductions are not foreseeable. For one, U.S. and NATO missile defense programs will ultimately rise or fall on their own merits (or demerits), including technical feasibility, cost, ability to deter the threats for which they are designed, and the likelihood of those threats.\footnote{74} The same goes for CPGS. Moscow may not like U.S. and NATO missile defense and CPGS programs, but it could eventually come to accept their modest reach and limited impact (if any) on strategic stability.

More likely, unilateral reductions could eventually happen on their own. The financial realities of nuclear modernization are likely to compel the United States to downsize its arsenal
by fiat, as old warheads are retired without replacement. U.S. nuclear weapons in Europe, too, could eventually decline, even given new tensions with Russia. Before the Ukraine crisis, Steven Pifer noted the possibility of a cascading elimination of unpopular U.S. nuclear weapons in Europe, as Germany replaces dual-use bombers with conventional bombers, leading it to decline to house nuclear bombs; Belgium and Netherlands could follow suit; and eventually Italy and Turkey would find being the sole possessors of U.S. nuclear weapons unattractive.\textsuperscript{75}

Optimistically, Russia will also eventually come around to the idea of further nuclear arms reductions. Moscow will gain confidence in the survivability of its nuclear arsenal, while over time the financial and technical limitations to U.S. missile defense and CPGS programs will become evident.

Until then, Russia and the United States could try to continue narrowing the gap between their understandings of strategic stability shorn of the pressure of negotiating a new arms control agreement. Such discussions could even lead to a reevaluation of nuclear doctrines. As U.S. government officials frequently note, a dialogue on strategic stability had begun before the Ukraine crisis.\textsuperscript{76} While such discussions are difficult to conduct at this time, the Ukraine crisis will eventually abate, and the bilateral strategic agenda will again gain in importance.

\textbf{Conclusion}

Since President Obama declared his support for further nuclear arms reductions in June 2013, the path forward has not become clearer. Indeed, given Russia’s subsequent rejection of further arms reductions, its violations of the INF Treaty, and its invasion of Ukraine, it has in fact become more opaque.
This may lead supporters of further arms reductions to the reluctant conclusion that the status quo – accepting New START reductions as the limit in the short- to mid-term – is the only viable option. The United States can accustom itself to deployed arsenals of 1,500 or so treaty-accountable weapons and twice that many in reserve, while it continues to invest in the modernization of its nuclear delivery systems. In the meantime, the United States will also pursue research and development in missile defense, CPGS, and other technologies that may not alter our understanding of strategic stability now but could yet do so. Russia, for its part, will maintain a parallel number of weapons, modernize its warheads and delivery systems, and seek as best it can to keep up with the United States in emerging military technologies.

This does not mean a world without arms control. The United States and Russia can also maintain, and potentially deepen, the nuclear transparency and verification regime. They can also find ways to address nuclear arms control and nonproliferation in a multilateral context, not only within the P5 and vis-à-vis Iran, but also by engaging India and Pakistan. In time, they may once again be able to return to the topic of nuclear arms reductions.

The status quo is not the only option. In theory, the United States could opt for a different path. It could conclude a new missile defense treaty with Russia. It could unilaterally implement nuclear reductions, whether in its deployed or reserve arsenal. It could also seek coordinated shifts in U.S. and Russian nuclear doctrines.

None of these options, however, are particularly promising at this time. There is little support in the United States either for a missile defense treaty or unilateral reductions. Changing nuclear doctrine will also not be an easy sell, either domestically or in Russia. Finally, for any of these to lead to Russian support for further arms reductions requires that a fundamental premise be correct: namely, that alleviation of Russian concerns about strategic stability can, in fact, have
a positive impact on decisions concerning the size of Russia’s nuclear arsenal. If decisions to retain – or increase – Russia’s nuclear arsenal are driven primarily by reasons other than strategic stability, the alternatives outlined here are all partial solutions at best.

Nonetheless, in the long run, all these options remain alternatives to the status quo. What is feasible at the present time is not the only criteria when contemplating the future of nuclear arms reductions. In the United States and Russia both, the politics surrounding issues of nuclear strategy – as on other matters of national security – are not fixed in stone. We may reach the finish line in U.S.-Russian nuclear arms reductions yet.

2 U.S. Department of State, “New START Treaty Aggregate Numbers of Strategic Offensive

3 Notification data current as of February 6, 2014. U.S. Department of State, “New START.”

4 The Russian parliament delayed ratification until 2000 and then made the treaty’s entry into
force contingent on U.S. preservation of the Anti-Ballistic Missile (ABM) Treaty, amendments
to which the U.S. Senate had delayed ratifying. The United States withdrew from the ABM

5 The White House, “Remarks by President Obama and President Medvedev of Russia at New
http://www.whitehouse.gov/the-press-office/remarks-president-obama-and-president-medvedev-
russia-new-start-treaty-signing-cere.

6 As of September 2013, the United States reported a total of 4,804 warheads. This number does
not include several thousand that are retired and awaiting dismantlement. Hans M. Kristensen
and Robert S. Norris of the Federation of American Scientists estimated Russia’s total stockpile
as of March 2014 to be around 4,300. U.S. Department of Defense, “Fact Sheet: Transparency in
the U.S. Nuclear Weapons Stockpile,” April 29, 2014, available at
http://www.state.gov/documents/organization/225555.pdf; Hans M. Kristensen and Robert S.


Ibid.


This was one theme of President Putin’s December 2013 state of the union address: “The ramping up of high-precision strategic non-nuclear systems by other countries, in combination with the build-up of missile defense capabilities, could negate all previous agreements on the limitation and reduction of strategic nuclear weapons, and disrupt the strategic balance of power.” President of Russia, “Presidential Address to the Federal Assembly” (December 12, 2013), http://eng.kremlin.ru/news/6402.


27 On those technologies, see Acton, “Silver Bullet?”


33 Dean A. Wilkening, “Does Missile Defence in Europe Threaten Russia?” Survival 54 (1) (2012): 49. The ground-based interceptors (GBIs) that would have been located in Poland under the previous Europe-based plan may have had a greater theoretical ability to intercept Russian ICBMs launched against the United States, depending on their speed. See George N. Lewis and Theodore A. Postol, “European Missile Defense: The Technological Basis of Russian Concerns,” Arms Control Today (October 2007), available at http://www.armscontrol.org/act/2007_10/LewisPostol, and Theodore A. Postol and George N. Lewis, “Briefing to the National Research Council Committee on An Assessment of Concepts and Systems for U.S. Boost-Phase Missile Defense in Comparison to Other Alternatives” (slide
While acknowledging the theoretical possibility of a successful intercept, Lawrence Livermore National Laboratory physicist Dean A. Wilkening has said that the ability of these GBIs to actually intercept ICBMs heading toward the East Coast “may be doubtful.” Wilkening, “Does Missile Defence in Europe Threaten Russia?” 46.


Butt and Postol, "Upsetting the Reset: The Technical Basis of Russian Concern Over NATO Missile Defense."


See, for example, Committee on an Assessment of Concepts and Systems for U.S. Boost-Phase Missile Defense in Comparison to Other Alternatives, "Making Sense of Ballistic Missile Defense," 10, 16; U.S Department of Defense, “U.S. Ballistic Missile Defense” (slide 10), May
3, 2012, available at


40 “Chicago Summit Declaration Issued by the Heads of State and Government Participating in the Meeting of the North Atlantic Council in Chicago on 20 May 2012” (Article 62).


“The Unaffordable Arsenal: Reducing the Costs of the Bloated U.S. Nuclear Stockpile”
Unaffordable-Arsenal-2014.pdf.

54 Elbridge Colby, “Defining Strategic Stability: Reconciling Stability and Deterrence,” in Colby and Gerson, Strategic Stability, 64.


58 On Russia’s nuclear arsenal as a proxy for great-power influence, see Matthew Rojansky, “Russia and Strategic Stability,” in Colby and Gerson, eds., Strategic Stability: Contending Interpretations, 295-342.


60 “Report on Nuclear Employment Strategy.”


For initial proposals in this direction, see Samuel Charap and Mikhail Troitskiy, “Beyond Mutually Assured Destruction: Cold-War-Era Nuclear Postures Are at the Core of the Missile


