



Preserving Strategic Stability Amid U.S.-Russian Confrontation

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Strategic stability is in a state of crisis. This impasse has been caused by several factors in U.S.-Russia relations, including profound mistrust, the lengthy absence of strategic dialogue, and serious disagreements on key global and regional issues. In light of the United States' decision to withdraw from the Intermediate-Range Nuclear Forces (INF) Treaty, Russia's subsequent decision to do the same, and the uncertain prospects of efforts to extend the New Strategic Arms Reduction Treaty (New START) before it is due to expire in 2021, this crisis is poised to worsen.

While multilateral arms control with other nuclear-armed powers is likely unattainable for the time being, it is still possible for Washington and Moscow to bolster strategic stability by striving to extend New START, refusing to exaggerate the destabilizing effects of key global trends on the U.S.-Russia nuclear balance, and holding open, regular talks about strategic stability and emerging technologies that do pose destabilizing risks.

STRATEGIC STABILITY

The concept of strategic stability was formally agreed on for the first time by then Soviet leader Mikhail Gorbachev and then U.S. president George H.W. Bush during the final negotiations on the Strategic Arms Reduction Treaty (START I) in June 1990.¹ Strategic stability was defined in terms of removing incentives for either side to launch a nuclear first strike. More specifically, strategic stability incorporates at least three elements.

- First, strategic stability entails that strategic offensive and defensive arms should be configured so that neither side's defenses can undermine the other's retaliatory strike capability.
- Second, strategic stability requires reducing the number of warheads carried by each strategic missile. Doing this makes it more difficult for a single incoming missile to eliminate several enemy missiles, each armed with a large number of warheads, before they are launched.



- Third, strategic stability puts a premium on the survivability of nuclear weapons, which would make it more difficult for an enemy to destroy them in a disarming first strike.

The concept of strategic stability since has been enshrined in various nuclear arms control agreements, including the U.S.-Soviet/Russian treaties on strategic offensive arms reductions (the START agreements). Additionally, the 1972 Anti-Ballistic Missile (ABM) Treaty limited strategic defenses, which both sides considered destabilizing at the time. Under the terms of START I in 1991, meanwhile, Moscow increased the proportion of mobile ground- and rail-based intercontinental ballistic missiles (ICBMs) in its arsenal. This treaty also envisaged that Moscow would improve the survivability of its ballistic missile submarines. For its part, the United States committed itself to emphasizing the role of highly survivable submarine-launched ballistic missiles (SLBMs) in its nuclear posture.

A HOST OF DESTABILIZING FACTORS, REAL AND IMAGINED

Since the early 2000s, the U.S.-Russia strategic relationship has grown increasingly strained. Moscow saw the U.S. abrogation of the ABM Treaty in 2002 as destabilizing. In the ensuing years, the Russian defense establishment began voicing concerns over a number of new perceived threats, including the possibility of a disarming U.S. first strike by strategic, non-nuclear, high-precision weapons; the use of new technologies such as hypersonic weapons and advanced cyberwarfare capabilities as well as unmanned and robotic systems; the deployment of space weapons; the rise of third countries' nuclear arsenals; and the impact of regional instability on nuclear-weapon states.

Diplomatic exchanges on these issues highlighted serious disagreements between Russia and the United States, indicating an erosion of the two sides' once-shared understanding of strategic stability. To make

matters worse, two important existing treaties are now in peril: Washington and Moscow will both scrap the 1987 INF Treaty later in 2019, and the two sides may not extend New START (due to expire in 2021) either. There is now a heightened risk that nuclear weapons could be used in a conflict, something that seemed almost unthinkable during the post-1991 heyday of U.S.-Russian relations.

Some of the purported risks that Moscow often cites as threatening its second-strike capability and, therefore, strategic stability have been exaggerated. This is particularly true of missile defense, the prospect of a first strike using high-precision, non-nuclear weapons, and space weapons. That said, the impasses over the INF Treaty and NEW START do pose real challenges, as does Moscow's and Washington's ill-advised openness to using launch-on-warning strikes in certain circumstances.

Missile Defense Systems

One of Moscow's chief complaints regards the ways that U.S. missile defenses purportedly undermine Russia's nuclear deterrent and, by extension, strategic stability. U.S. efforts to build missile defense capabilities continue to provoke neuralgia in Russia's military and national leadership. Because of the grand scale of the U.S. missile defense program, Moscow refuses to contemplate further reductions in strategic offensive arms beyond those stipulated in New START. Admittedly, a dense missile defense system realistically would be capable of intercepting single (or even multiple) launches of ballistic missiles equipped with only the simplest countermeasures. Such a system, however, would be completely incapable of significantly **reducing the nuclear deterrent** of Russia or the United States.² The fate of the U.S. Strategic Defense Initiative (SDI) convincingly proved that it is virtually impossible to create a missile defense system capable of protecting a country from a retaliatory strike involving hundreds of warheads. This remains true today.

Moreover, even as Moscow complains about U.S. missile defense, Russia continues to improve the defense penetration capacity of its missiles. Speaking before a group of military officers in September 2015 about adding forty new ICBMs to the country's nuclear forces, Russian President Vladimir Putin [said](#) that the new missiles would “be capable of overcoming the most technically advanced anti-missile defense systems.” Putin was referring to new types of Russian ICBMs such as the Yars and the Bulava. Moreover, other missiles in Russia's strategic arsenal—including the Sineva, the Voevoda, and the Topol-M—have also been equipped with effective penetration aids that make them capable of overcoming missile defense systems quantitatively and qualitatively similar to the one the United States plans to deploy. The high penetration capabilities of these Russian ballistic missiles remains an effective stabilizer of U.S.-Russian strategic stability by blunting the destabilizing effects of U.S. missile defense. Consequently, the impact of missile defense on Russia's second-strike capability for the foreseeable future should not be overstated.

Hypersonic Disarming Strikes

Apart from U.S. missile defense, Russian leaders also take a dim view of the United States' Conventional Prompt Global Strike program. Putin himself has weighed in, arguing that the emergence of high-precision, long-range, non-nuclear arms capable of hitting distant targets in short time horizons, in effect, allows the possibility of a [disarming first strike](#). This assessment fueled Russia's skepticism toward then U.S. president Barack Obama's notion that deep nuclear arms reductions could eventually lead to a nuclear-free world. In such a world, Putin [stated](#), “Nations that are leaders in creating and producing [such] high-precision systems will have a clear military advantage.”

Yet the Kremlin's assessment of Conventional Prompt Global Strike is challenged by the findings of three authoritative Russian military experts. Their [research](#) demonstrates that it would be impossible for

Washington to conduct simultaneous high-precision cruise-missile strikes against even one of the Russian Strategic Rocket Forces' (SRF) positions in the European part of Russia.³ Their calculations are based on a host of factors, including the size and configuration of the SRF target as well as the estimated number of cruise missiles the United States would need to reliably hit a hardened missile site, such as an underground missile silo or a command center.

These Russian experts further [confirm](#) that it would be impossible for the United States to destroy part of Russia's SRF in a first strike without using nuclear weapons. Because the destructive potential of non-nuclear high-precision weapons in a hypothetical attack against hardened Russian missile sites would be incomparably smaller than the damage wreaked by nuclear weapons, such an attack would have to employ an exceptionally large number of non-nuclear weapons. The number of missiles needed could actually be even greater than these experts have suggested, given Moscow's ability to interfere with the guidance systems of high-precision munitions.

Given these realities, it would be extremely difficult for the United States to plan simultaneous attacks against several hundred targets scattered across Russia's vast territory. Preparing for such an attack and assembling the forces necessary to execute it would take a long time. Any such preparations would not be easy to conceal, and Moscow would almost certainly have enough time to counter by putting its nuclear forces on high alert.

For all these reasons, it appears unlikely that the Pentagon would seriously consider a disarming conventional strike against Russia's strategic nuclear forces. Such an attack would not only prove to be entirely pointless but would also trigger a devastating retaliatory nuclear strike. Similar reasoning counters speculation about the possibility of a U.S. disarming strike using expensive hypersonic weapons that Washington is currently developing and will probably acquire in only limited quantities. This means that the impact of U.S. long-



range, high-precision conventional missiles on strategic stability would almost certainly be more modest than Russian officials have suggested.

The Emergence of Space Weapons

As preoccupations with space weapons mount, outer space is becoming a new area of major power competition with implications for strategic stability. Countries have already discussed banning the militarization of space for many years, but reaching an agreement has proven extremely difficult. A [Russian-Chinese proposal](#) presented at the UN failed to attract much support, and an attempt to adopt a Space Code of Conduct was also unsuccessful.

Part of the challenge is that simply banning the introduction of weapons in space would be insufficient. In addition to prohibiting countries from using space weapons to strike targets on the ground, at sea, or in the air, efforts to prevent space from being militarized would also have to ban countries from testing and deploying ground-, sea-, and air-based weapons capable of striking targets in space. Additionally, there would have to be a more detailed [assessment of threats](#) arising from Russia's growing capabilities to penetrate and even disrupt spacecraft operations, which the United States has periodically alluded to in recent years.

Given these hurdles, it would be extremely difficult for Washington and Moscow to reach an agreement on all these and other space-related issues. Yet giving up on trying to solve the problem would only make things worse. At the same time, one has to acknowledge the limited impact of space weapons on strategic stability. Even the kind of space-based missile defense system that the United States contemplated but never deployed in the early 1980s as part of then president Ronald Reagan's SDI, given technological realities, would have been incapable of protecting U.S. territory from a retaliatory nuclear strike.

The Risks of a Launch-on-Warning Posture

Aside from technological innovations, an important aspect of U.S. and Russian nuclear doctrine has implications for strategic stability. Russia and the United States are the only nuclear-armed states capable of a launch-on-warning strike. Such a strike is ordered on the basis of information provided by ballistic-missile early-warning systems. In such a scenario, leaders would have to decide whether to launch a counterstrike under very tight time constraints. This is really only an issue between Washington and Moscow, because the other nuclear-weapon states lack significant counterforce potential against the U.S. and Russian strategic nuclear forces, so the two main nuclear powers do not need to concern themselves with a launch-on-warning strike by these other countries.

But it still remains a risk for the United States and Russia. Apart from possible errors, launch-on-warning strikes are particularly dangerous because a head of state would have extremely little time—literally minutes—to decide whether to launch a strike. The growing role of individual leaders over institutional structures even in democratic states, let alone authoritarian ones, exacerbates these dangers. While this risk primarily applies to Russia and the United States for now, in the future other nuclear powers may adopt this dangerous strategy.

So far, mindful of the risks associated with launch-on-warning strikes, both the United States and Russia have relied primarily on deterrence strategies premised on a traditional retaliatory strike. Actually, in Russia's case, a launch-on-warning strike designed to protect its ICBMs is no longer relevant. A decision to launch ICBMs before they could be hit by U.S. missiles might have been reasonable in Soviet times, when the country's forces mostly consisted of stationary ICBMs that were not very survivable. But today, most mobile Russian ICBMs would survive any initial U.S. strike, so a launch-on-warning strike would not be necessary because Moscow could always order a retaliatory strike

with its surviving mobile ICBMs, which would dissuade Washington from launching an initial attack in the first place.

Nevertheless, despite the aforementioned reasons for caution, Russia has reaffirmed its launch-on-warning concept. Moscow's and Washington's continued insistence on retaining the option of a launch-on-warning strike is unnecessary and dangerous, and the two countries should reconsider their position on this matter.

Nuclear Multipolarity

In addition to emerging military technologies, the fact that more countries now wield nuclear weapons, a phenomenon called nuclear multipolarity, is a salient feature of the twenty-first century global strategic environment. The steady development of China's nuclear arsenal, the arrival of new nuclear powers like India and Pakistan, and the more recent emergence of a North Korea armed with nuclear weapons and long-range ballistic missiles have complicated the task of maintaining strategic stability.

Russian leaders believe that meaningful strategic arms control in the future has to be multilateral. In 2012, Putin [stated](#) that all nuclear powers should participate because, otherwise, Russia and the United States would be “endlessly disarming themselves while other nuclear powers would be building up arms.” In 2013, Moscow responded skeptically to an [Obama administration proposal](#) to reduce strategic offensive weapons by one-third below the level agreed to in New START; Russia stated, in effect, that the two parties' capacities for further bilateral nuclear reductions would be exhausted after New START's provisions were implemented.

For their part, China and these other emergent nuclear-armed countries have traditionally maintained that multilateral nuclear arms control agreements will only be possible after Russia and the United States [reduce their arsenals](#) to the size of other nuclear powers.

Additionally, any such agreement, in their view, would have to take into account the number of Russian and U.S. weapons on heavy bombers as well as nonstrategic nuclear weapons.

These conditions are highly unlikely to be met for the foreseeable future. Even if Russia and the United States were able to overcome their differences on any number of sore points and open new negotiations on further reducing their nuclear arsenals, they would only be able to limit their strategic offensive nuclear arsenals to approximately 1,000 warheads. Even those smaller totals would still be many times larger than those of the other nuclear powers. In addition, the prospect of reducing the U.S. and Russian nonstrategic nuclear arsenals would remain uncertain. Even if, for the sake of argument, the size of the Russian and U.S. nuclear arsenals were pared down to that of other nuclear powers, there would still likely be insurmountable difficulties to reaching multilateral agreements on verifiable reductions to the total combined number of nonstrategic and strategic weapons, since any experience gained in strategic arms control would not be readily applicable to nonstrategic nuclear arms.

To understand why, recall that, apart from the INF Treaty, Moscow and Washington have always negotiated about reducing strategic nuclear arms, not nonstrategic nuclear weapons. This is at least partly because it is extremely difficult to verify the implementation of agreements involving nonstrategic nuclear weapons (not covered by New START), as many of the relevant delivery vehicles have dual purposes, different typologies, and multiple deployment areas. In addition, except for the UK, all the [other nuclear powers](#) are armed with both strategic and nonstrategic nuclear weapons, and it would be virtually impossible for all these countries to reach a verifiable agreement that covered both.

To illustrate the problem, it is worth mentioning that New START's [verification measures](#) include up to eighteen reciprocal inspections per year and forty-two different obligatory notifications regarding the current



state of strategic arms, their movements, and inspection-related matters. The treaty also helps facilitate the exchange of Russian and U.S. telemetric data obtained during missile launches. A new arms control agreement covering multiple countries and nonstrategic nuclear weapons would be exponentially more complicated.

Given these obstacles, the prospect of multilateral nuclear arms control is all but illusory. What is possible instead is step-by-step progress toward consultations between and among nuclear-weapon states on nuclear arms transparency and restraint. Such consultations would help bolster strategic stability in a multipolar nuclear environment.

The Last Days of the INF Treaty

In the meantime, Russia and the United States should strive to preserve existing arms control agreements. The impending or potential collapse of key arms control treaties has complicated efforts to maintain strategic stability in recent years. In February 2019, the U.S. government formally announced that it would [withdraw from the INF Treaty](#) later in the year, and soon afterward Moscow responded in kind. Some Russian observers have long criticized the treaty and not only because the Soviet Union [had to eliminate](#) more than twice as many missile systems as the United States did. Russians also have been dissatisfied with the INF Treaty because [five other nuclear-armed powers](#) geographically close to Russia—China, India, Israel, North Korea, and Pakistan—are armed with intermediate-range missiles, while Moscow had to renounce such missiles under the treaty's terms.

Russian critics, however, need to remember that even though Russia gave up more weapons, the United States gave up a very threatening capability. U.S. Pershing II ballistic missiles were equipped with high-precision reentry vehicles that could penetrate deep into the earth's surface and vary their warhead yield depending on the target. Equipped with unique technology, it was the most advanced weapons system of the time.

Similarly, U.S. cruise missiles, equipped with a terrain guidance system, had improved accuracy and were not easily detectable by Soviet air defense systems. The features of these missile types, along with the short flight time of Pershing II missiles to their targets (eight to ten minutes), posed a significant threat to hardened central command sites in Moscow where Russia's leaders might be during a hypothetical U.S. attack.⁴

In addition, these U.S. capabilities threatened land-based ICBM launchers and other military nuclear infrastructure in the European part of the Soviet Union. A final important factor is that, unlike the Soviet missiles that were eliminated under the INF Treaty (which could not reach U.S. territory), relevant U.S. missiles could strike deep inside the Soviet Union. Given these other factors, the Soviet decision to sign the treaty in 1987 and sacrifice quantity in exchange for a U.S. sacrifice in quality was [eminently justifiable](#).

Notably, even before Trump's decision to abrogate the INF Treaty, there had been no prospect for making it a multilateral agreement. The missiles prohibited by the treaty make up the bulk of the nuclear arsenals of China, India, North Korea, and Pakistan, and it would be pointless to try to convince them to abandon these weapons and join the treaty, especially considering the aforementioned verification issues.

Russia has few reasons to lament the loss of its medium- and intermediate-range missiles, since new Russian ICBMs are capable of striking the same range of potential targets as the Soviet-era missiles Moscow lost under the INF Treaty.⁵ The same is true of Russia's air-launched cruise missiles. Russia's nuclear deterrence vis-à-vis countries on its periphery is therefore fully guaranteed.

Ultimately, the specific U.S. and Russian mutual allegations of violations of the INF Treaty were not severe enough to directly undermine either party's deterrent capabilities. This dispute could have been resolved by the treaty's Joint Verification Commission,

but that did not happen, even though several experts offered suggestions on how the differences could be addressed. This failure is hardly a technical issue. Given the ongoing confrontation between the United States and Russia, and the relationship's prevailing harsh atmosphere, mutual trust has totally broken down.

But the abandonment of the INF Treaty itself will have a strongly negative impact on strategic stability. The Non-Proliferation Treaty (NPT) will be further eroded, and the likelihood of nuclear weapons being used will increase. If the decision to withdraw from the treaty results in the development and deployment of new, more effective U.S. ballistic and cruise missiles in Europe much closer to Russian borders than during the Cold War—a prospect that the Trump administration [denies](#)—Russia would presumably field its own systems targeting NATO military infrastructure. In the end, Russia and NATO would find themselves in [a more dangerous confrontation](#) now than they did in the 1980s.

The Potential Non-Extension of New START

The INF Treaty is not the only agreement in peril. For decades, strategic nuclear arms agreements between Moscow and Washington like New START have bolstered strategic stability. These agreements have made it possible for the two countries to maintain a stable balance of nuclear forces affordably and receive exhaustive information about the current conditions and future prospects of the modernization of strategic offensive arms. These accomplishments have been made possible by dozens of annual local inspections and exchanges of information and notifications regarding the condition and transporting of nuclear arsenals, the addition or removal of strategic systems, and exchanges of telemetric data from missile launches.

[Past experience](#) suggests that a lack of this information inevitably and logically leads countries to overestimate their opponents' capabilities and, consequently, increase the quality and quantity of their own arsenals

at considerable cost. This dynamic can easily lead to a nuclear arms race. If New START were allowed to expire in 2021, strategic stability would be in danger.

Granted, if the information exchanges conducted under the treaty ceased, Russia and the United States could still obtain some data through other technical means, but satellite-based intelligence platforms would be a totally insufficient source of information by comparison. For instance, it would then become difficult to determine the number of warheads deployed on ICBMs and SLBMs. Given the terms of New START, the U.S. [Trident II missile](#) typically carries four or five warheads each, although each missile can be equipped with perhaps as many as twelve warheads. Meanwhile, each U.S. [Minuteman III ICBM](#) can be equipped with three warheads, although since June 2014 they have typically only carried one. Uploading U.S. Trident II and Minuteman III missiles to their full capacity would more than double the total number of U.S. strategic nuclear weapons. Russia's strategic nuclear forces could take countermeasures, but the strategic balance between the United States and Russia would be impaired.

A FEW WAYS TO REINFORCE STRATEGIC STABILITY

The crisis befalling strategic stability between Russia and the United States can and should be avoided, assuming that Moscow and Washington can muster the political will to pursue four mutually reinforcing steps.

- **Renew New START.** Moscow and Washington need to extend the treaty for five more years and begin negotiations on further reductions of strategic nuclear weapons. If the United States and Russia could trim their nuclear arsenals to approximately 1,000–1,200 weapons and 500–550 delivery vehicles each, that would allow the two countries to preserve the strategic balance and significantly reduce the cost of maintaining their arsenals. The impeccable implementation of New START so

far suggests that there is still a certain amount of trust between U.S. and Russian nuclear weapons professionals. This foundation should be built upon.

- **Avoid exaggerating the supposed destabilizing effects of certain security factors.** Several issues that are widely portrayed as obstacles to U.S.-Russia negotiations on further reductions of strategic nuclear arms need to be tackled in a less emotional fashion without overstating their destabilizing effects. In reality, issues like the nuclear arsenals of other countries, U.S. and NATO missile defense systems, and the hypothetical possibility of a disarming strike with strategic non-nuclear weapons all have little or no effect on the stable nuclear balance between the two countries.
- **Hold regular talks on strategic stability.** Russia and the United States need to conduct open, regular talks on strategic stability along with legislative briefings in both countries. It is important for Moscow and Washington to better understand how new technologies and military programs are creating new capabilities that will affect strategic stability. The development of conventional, cyber, space, anti-satellite, and other offensive weapons technologies may have serious consequences for global security. Ongoing discussions of these issues should lead to practical steps to reduce the risks associated with these developments.
- **Abandon launch-on-warning nuclear strategies.** This important step would help lower the risk of catastrophic errors. Lengthening the time required for leaders to decide whether to launch a retaliatory strike would not undermine deterrence, since such a second strike would still be guaranteed to inflict unacceptable losses on an attacker and therefore dissuade the other party from striking first.

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NOTES

- 1 "Soviet–United States Joint Statement on Future Negotiations on Nuclear and Space Arms and Further Enhancing Strategic Stability" June 1, 1990.
- 2 The cited 2013 study analyzed a fifty-year period covering the development and testing of various missile defense systems in the Soviet Union and the United States, including the U.S. Strategic Defense Initiative (SDI) program.
- 3 Please also see Vladimir Dvorkin, "Hypersonic Threats: The Need for a Realistic Assessment," Carnegie Moscow Center, August 9, 2016, <http://carnegie.ru/2016/08/09/hypersonic-threats-need-for-realistic-assessment-pub-64281>.
- 4 Jonathan Haslam, *The Soviet Union and the Politics of Nuclear Weapons in Europe, 1969-87: The Problem of the SS-20*, Palgrave Macmillan, 1989.
- 5 In Russian nomenclature, all of these missiles are considered medium-range missiles

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