

Increasing Nuclear Threats through Strategic Missile Defense

By Greg Thielmann

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Center for International
and Security Studies at Maryland
4113 Van Munching Hall,
School of Public Policy, University of Maryland
College Park, MD 20742
(301) 405-7601



SCHOOL OF
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**CENTER FOR INTERNATIONAL &
SECURITY STUDIES AT MARYLAND**

Abstract

Growing concerns about third-country nuclear threats led the United States to withdraw from the ABM Treaty's constraints on the size and scope of ballistic missile defense arsenals in 2002. Inaccurate and alarmist projections of "rogue state" ICBM threats were critical in winning support for the decision to withdraw from the treaty and to sustain the multi-billion dollar annual price tag for developing, deploying, and expanding strategic missile defenses. But 18 years after Washington abandoned the treaty, North Korea is the only rogue state that could pose a near-term nuclear threat against the American homeland—and U.S. missile defense interceptors and radars have not even delivered high confidence of being able to protect against this threat.

Meanwhile, the absence of limits on U.S. strategic missile defenses and prudent, worst-case concerns in Moscow and Beijing about their future expansion are fueling resistance to additional nuclear arms reductions and stability measures. The end result is that the exponential threats posed by Russia and China are getting worse and the chances of a disastrous nuclear arms race are increasing. This analysis argues that the nuclear threat confronting the United States is multilateral, three-dimensional, and interrelated. Unless the United States acknowledges the role of missile defenses in this complicated reality, it will not be able to realize the full benefits that arms control offers.

Throughout the nuclear era, U.S. strategic *offensive* force posture has remained overwhelmingly focused on deterring attacks from a nuclear-armed peer competitor. Yet, the justification and program planning for strategic missile *defenses* has been repeatedly re-directed against states of proliferation concern – China in the 1960s, and North Korea, Iraq, and Iran after the Cold War ended.

During most of the last two decades, new ICBM threats did not emerge from these countries as had been consistently projected by U.S. officials. Although the United States has spent more than \$200 billion on U.S. ballistic missile defenses since 1985,¹ these systems still cannot reliably defeat even a limited ICBM attack for reasons likely to remain true regardless of how much more money is devoted to their development. Moreover, U.S. missile defense efforts have had little effect influencing “rogue state” behavior. Instead, they have diverted significant resources and attention from other military and diplomatic efforts, which could more effectively protect against current and future threats to national security.

Most importantly, unregulated U.S. missile defense programs have had a significant negative impact on efforts to reduce the existential threat posed by the nuclear arsenals of Russia and China. Exaggerated predictions about potential future threats from relatively weak countries have helped motivate America’s most powerful potential adversaries to strengthen their own nuclear offensive weapons as a hedge against whatever missile defense capabilities the United States might eventually deploy.

The result is that U.S. strategic missile defense efforts have accomplished the exact opposite of what they were designed to do. They have provided little, if any, real protection against states of proliferation concern, while working against reductions in the nuclear arsenals of major military competitors.

The Evolution of U.S. Strategic Missile Defense Programs

U.S. plans for strategic ballistic missile defense took several radical turns during the Cold War that illustrate a recurring pattern. An exaggerated version of a potential future threat from an “unstable rogue state” adversary has been repeatedly used by the United States to justify urgent deployment of “limited” strategic missile defenses. Peer competitors then worry that their own nuclear deterrents may ultimately be compromised by an evolution in these defenses. Absent a treaty limiting strategic missile defenses, U.S. peer competitors have been further motivated to improve the quality and increase the quantity of their offensive systems.

The first time this happened was during the first two decades of the Cold War. U.S. ballistic missile defense systems were conceived in the 1950s as a means of counteracting an emerging build-up of intercontinental-range Soviet missiles. In the 1960s, when the futility of defending American cities against a massive Soviet missile attack became increasingly evident, the justification morphed toward a focus on China. In 1967, Defense Secretary Robert McNamara explained the Johnson administration’s decision to go forward with a “light” ABM system by depicting the revolutionary government in Beijing as what would now be called a “rogue state” –

¹“Fact Sheets & Briefs,” Arms Control Association. (armscontrol.org/factsheets/usmissiledefense):

an emerging power that was not necessarily deterrable by U.S. nuclear weapons, but unable to build enough long-range missiles to overwhelm very rudimentary U.S. missile defenses.²

The incoming administration of President Richard Nixon decided in 1969 on a more ambitious plan to use U.S. missile defenses to disrupt a Soviet first-strike against U.S. ICBM fields and the national command authorities in the national capital area, as well as to increase protection against the newly emerging, but very limited ICBM threat of China. Nixon's "Safeguard" Anti-Ballistic Missile (ABM) system was composed of long-range "Spartan" and short-range "Sprint" interceptors, directed by a large, phased-array radar. The administration also decided to balloon the U.S. strategic arsenal by deploying multiple-independently-targeted re-entry vehicles (MIRVs) on its own ballistic missiles, partly in order to ensure that the Soviet ABM system could be overwhelmed. The Soviets continued expanding their offensive missiles to negate whatever defenses the Nixon administration deployed.

This action-reaction cycle was expensive for both countries and contrary to the commitment they had made in the 1967 Nuclear Nonproliferation Treaty to reverse their nuclear arms race. In negotiations between the Soviet Union and the United States, both sides sought to lower their need for additional nuclear weapons by limiting not only both sides' strategic offenses, but also strategic defenses. In 1972, the two parties concluded the Anti-ballistic Missile (ABM) Treaty and the Strategic Arms Limitation Talks Interim Agreement (SALT I) -- the first legal constraints placed on U.S. and Soviet offensive and defense strategic weapons.

ABM Treaty. The ABM Treaty limited each side to no more than 200 ABM launchers at two sites --reduced two years later in a treaty protocol to 100 launchers at one site. In 1976, within one year of being fielded in North Dakota, the U.S. "Safeguard" system was decommissioned, because it was not considered cost-effective. For nearly a decade thereafter, U.S. ABM research and development were pursued at a steady and relatively modest (\$1 billion) annual level of effort. ABM enthusiasts naturally supported research that might someday yield technological breakthroughs needed to solve basic feasibility problems, but even ABM opponents favored some level of effort to guard against technological surprise and to demonstrate how difficult the challenge of creating an effective system remained.

"Star Wars." In 1983, President Ronald Reagan surprised even many of his own advisors by rejecting the contemporary consensus that trying to deploy a large-scale strategic missile defense system would have a net negative effect on U.S. security. Propelled by a vision of nation-wide defenses, including space-based systems, against all incoming ballistic missiles, Reagan introduced the "Strategic Defense Initiative" (SDI). The program's ultimate objective was to render enemy ICBMs "impotent and obsolete." This departure from long-standing assumptions was controversial in the scientific and arms control communities. When the administration attempted in 1987 to reinterpret the ABM treaty's ban on flight-testing of systems "based on other physical principles," in order to test directed energy weapons, it met strong opposition in the U.S. Senate.

² "Text of McNamara Speech on Anti-China Missile Defense and U.S. Nuclear Strategy," *New York Times* (September 19, 1967).

The Reagan administration also used charges of Soviet violations to lay the political groundwork for U.S. withdrawal from the ABM Treaty. It officially determined in 1984 that the Soviet Union's construction of a large, phased-array radar near the Siberian city of Krasnoyarsk violated the treaty requirement that any such radar could only be "on the periphery of the country and oriented outward." The issue remained highly contentious until 1989 when the Soviets finally admitted the violation and agreed to dismantle the facility. The successful resolution of compliance challenges to the ABM Treaty arguably strengthened its viability, as did the fact that SDI technology was still a long way from meeting the Reagan administration's own criteria for deployment—that the system be technologically feasible, survivable, and cost-effective at the margin. Nonetheless, strong opposition to the treaty in the U.S. Congress among strategic missile defense advocates did not abate.

Star Wars (Light) to ABMT (Heavy). President George H.W. Bush initially continued pursuit of Reagan's vision, advocating development of a much more limited version of SDI, dubbed "Brilliant Pebbles," while continuing temporarily to adhere to the ABM Treaty.

With the collapse of the Soviet Union and Warsaw Pact, Bush adopted a new approach, dubbed "Global Protection Against Limited Strikes." GPALS sought to provide flawless protection from lesser numbers of nuclear missiles – launched from Russia by accident, or deliberately by a rogue Russian commander, or by the irrational government of a newly emerging nuclear weapons state. In June 1992, Bush reached a "Joint Understanding" with Russian President Boris Yeltsin that "it is important to explore the role for defenses in protecting against limited ballistic missile attacks."³ However, efforts to consider joint work with Russia on GPALS were not consummated in any subsequent treaty provisions. The START II Treaty, signed in January 1993, did contain a declaration in the Preamble that the parties were "mindful of their obligations under the ABM Treaty."⁴

National Missile Defense (R&D). Throughout the presidency of Bill Clinton, the United States and Russia continued to honor ABM Treaty limits, negotiating in 1997 a protocol which differentiated in technical terms strategic interceptors (limited by the treaty) from non-strategic interceptors (not limited by the treaty). Clinton endorsed the utility of theater ballistic missile defenses in coping with the increasing ballistic missile capabilities of rogue states.

While sensitive to the growing potency of missile defense as a partisan issue for the Republicans in Congress, Clinton also sought to avoid abandoning the ABM Treaty. That treaty had made possible the sequential negotiation of four U.S.-Soviet/Russian strategic offensive arms agreements: SALT I, SALT II,⁵ START I, and START II. Moscow made clear that continued U.S. adherence to the ABM Treaty would be a prerequisite to Russian ratification and implementation of START II. Notably, this treaty contained an invaluable ban on ICBMs carrying MIRVs -- a provision universally judged to be more advantageous to the United States

³ <https://fas.org/nuke/control/abmt/text/b920617m.htm>

⁴ "Joint Understanding on Further Reductions in Strategic Offensive Arms and the Joint Statement on a Global Protection System," signed by President Bush and President Yeltsin on June 17, 1992, in Washington (https://fas.org/nuke/control/start2/text/start2a_a.htm)

⁵ Largely because of the Soviet invasion of Afghanistan, rather than missile defense issues, the SALT II Treaty was never ratified.

than to Russia, because the Russian deterrent relied more on land-based missiles while the US posture relied more on submarine-launched ballistic missiles.

President Clinton explicitly reaffirmed the existence of an interrelationship between the strategic offensive and strategic defensive forces of the two countries, resisting domestic pressure to unilaterally break out of the ABM Treaty. His administration nonetheless continued research and development on a national missile defense system to protect against limited or accidental ballistic missile attacks, which would have required alteration in the terms of the ABM Treaty to deploy.

Clinton established a coherent logic for making a national missile defense system deployment decision based on four criteria: 1) the seriousness of the threat; 2) the affordability of the cost; 3) the feasibility of the technology; and 4) the overall impact of proceeding with such defenses on U.S. national security, given likely responses by Russia and China.

Despite pressure from Congressional Republicans, Clinton decided, in September 2000, against moving forward with deployment, citing insufficient evidence of the technical and operational effectiveness of the system and the negative net strategic impact. He did not, however, actively refute the exaggerated threat estimates of “rogue state” ICBMs, which arose in his second term – first from a 1998 Presidential Commission headed by former Defense Secretary Donald Rumsfeld and then from a 1999 National Intelligence Estimate on the Foreign Ballistic Missile Threat.

As discussed below, this passive response enabled a policy consensus to form around worst-case predictions about ballistic missile proliferation. These predictions contributed to the justification for strategic missile defense deployments – without due regard for the political improbability of rogue states attacking the U.S. mainland with nuclear weapons, the inherent technological challenges of providing leak-proof effectiveness to counter such attacks, and for the near-certain consequence of strategic missile defenses stimulating Russian and Chinese efforts to enhance their offensive nuclear capabilities.

ABM Treaty Withdrawal. When President George W. Bush took office at the beginning of 2001, the stage was set for abandonment of the 29-year-old ABM Treaty that had been a keystone to the elaborate structure of nuclear arms control erected over the previous three decades. Although the amended treaty allowed each side to deploy up to 100 strategic ballistic missile interceptors at a single deployment site, it also prohibited the deployment of a nation-wide strategic missile defense system. Clinton had resumed the earlier efforts of his predecessor to negotiate a broadening of the ABM Treaty in the face of emerging threats, without losing the advantages of START II limits on Russian offensive systems.

The new administration, however, was eager to remove all treaty restraints on both strategic offenses and defenses. With the inflated projections of a near-term “rogue state” ICBM threat preparing the path domestically, the second Bush administration rode the emotional shock wave of the 9/11 attacks to announce its intent to withdraw from the ABM Treaty in six months. When it did so in June 2002, Moscow announced that Russia would withdraw from START II.

The projected emergence of ICBM threats from states of proliferation concern played a significant role in the U.S. justification for withdrawal. Warnings of the rapid pace of ICBM development in “rogue states” contributed to the hasty installment⁶ of the first of 26 Ground-based Midcourse Defense (GMD) interceptors to Alaska. Initial operational capability was targeted for the fall of 2004 -- shortly before the U.S. presidential election.

In early 2007, the Bush administration opened bilateral negotiations with the Czech Republic and Poland for establishment of a third site⁷ for strategic missile defenses, positioned to help defend the United States from potential future long-range missiles launched by Iran. Ten interceptors were to be deployed in Poland and a large, phased-array radar was to be installed in the Czech Republic to better protect the U.S. mainland from Iranian ICBMs. The plan infuriated Russia and was dropped when the Obama administration assumed office in 2009. The new administration noted that the third strategic missile defense site was designed to protect the United States against an Iranian capability, which did not exist, without protecting Europe against the shorter-range missiles Iran already had or was developing.

Shift of emphasis to theater defenses. President Barack Obama replaced the Bush plan with a multi-stepped “European Phased Adaptive Approach.” The “EPAA” sought to deploy missile defenses incrementally to protect Europe as missile threats “from the Middle East” (principally, Iran) grew. This theater missile defense program would start with the deployment of Aegis (SM3-IA) missile-equipped warships to be based in Spain; then it would move ashore with increasingly longer-range, higher-velocity interceptors to bases first in Romania (with the SM3-IB), and then in Poland (with the SM3-IIA).⁸

Obama simultaneously resumed serious negotiations with Russia for a follow-on to the START I agreement, leading to a signing of the New Strategic Arms Reduction Treaty (New START) in 2010. In the Preamble to this treaty, the parties recognized the interrelationship between strategic offensive and strategic defensive arms and that this interrelationship would become more important as strategic nuclear arms were reduced.⁹ At the same time, the document acknowledged that the current level of strategic defenses did not undermine the viability and effectiveness of strategic offensive forces.¹⁰ This preambular language supported the U.S. claim that strategic defense deployments were minimal and that the distinction between strategic and theater defenses was being maintained. It also put down a marker for the Russian side that, if

⁶ The launch silos to be used for the first tranche of interceptors in Alaska had not been adequately tested and had to be replaced when they were soon rendered unusable by water leaks. Their replacement cost half-a-billion dollars and delayed the system’s initial operational capability for many months.

⁷ The first two sites were Alaska and California, optimized for protection against a North Korean threat.

⁸ A fourth phase, which was to have provided protection against Iranian ICBMs after 2022 was cancelled in March 2013. See: Tom Collina, “Pentagon Shifts Gears on Missile Defense,” Arms Control Today, April 2003 (<https://www.armscontrol.org/act/2013-04/pentagon-shifts-gears-missile-defense>)

⁹ This language was ambiguous. In the Russian interpretation, it acknowledged that the potentially destabilizing effects of missile defenses grew as the number of offensive weapons on both sides decreased, reducing the certainty of an effective second-strike; many US policymakers would argue that missile defenses became more stabilizing as offensive options were reduced, because first-strike attacks would become less feasible.

¹⁰ New START Treaty Text (<https://2009-2017.state.gov/documents/organization/140035.pdf>)

U.S. strategic defense capabilities expanded significantly, Russia might feel the need to expand its strategic offensive capabilities to retain confidence in its deterrent.

Unshackled. Following his assumption of power in January 2017, President Donald Trump evinced little interest in arms control or strategic restraint, ultimately withdrawing from the 1987 Intermediate Nuclear Forces Treaty and the 1992 Open Skies Treaty, wavering on extending New START, introducing new nuclear weapons types (such as the low-yield warheads for Trident SLBMs) and threatening a resumption of nuclear testing. Trump also authorized an increase in the number of deployed strategic ballistic missile interceptors from 44 to 64, and further blurred the distinction between strategic and theater missile defenses by authorizing testing of theater missile defenses against ICBM targets.

Hyping the Threat from Proliferating States

Alarmist projections of future nuclear-tipped ballistic missiles from states of proliferation concern have been an integral component of U.S. strategic ballistic missile defense efforts for more than two decades. Downward revisions in the projected levels of threat have garnered little attention and had limited impact slowing the momentum for strategic missile defenses.

The Rumsfeld Commission was inspired by dissatisfaction among Congressional Republicans with previous U.S. Intelligence Community assessments that any rogue state ICBM threat would only materialize 10-20 years into the future. The Rumsfeld Commission report (to “Assess the Ballistic Missile Threat to the United States”)¹¹ gave an enormous boost to supporters of strategic missile defense when it delivered the claim that North Korea, Iran -- or any other nation “with a well-developed Scud-based short-range ballistic missile (SRBM) infrastructure -- would be able to achieve the first flight of a long-range missile...including [ICBM]-range, within about five years of deciding to do so (ten years in the case of Iraq).” The report warned that: “...the U.S. might not be aware that such a decision had been made,” implying that actual warning would probably be less than five years. It further noted “evidence that North Korea is working hard on the Taepo Dong 2 (TD-2) ballistic missile,” variations of which could potentially reach parts of Alaska, Hawaii, or even Western parts of the mainland United States. Report language implied that a North Korean TD-2 could be deployed within a few years.

The report’s alarming conclusions were dramatically reinforced six weeks later by North Korea’s unexpected launch of a three-stage rocket, the Taepo Dong I (TD-1). Although the launch failed in its announced objective of placing a satellite in orbit, it was assessed by the intelligence community to be an IRBM technology demonstrator, with dire implications for accelerated development of an ICBM.¹² Some missile defense advocates went further, characterizing the Taepo Dong 1 as an ICBM that could hit the United States with “weapons of mass destruction,”

¹¹ Report of the Commission to Assess the Ballistic Missile Threat to the United States

¹² Robert D. Walpole, “North Korea's Taepo Dong Launch and Some Implications on the Ballistic Missile Threat to the United States,” Center for Strategic and International Studies, December 8, 1998. (https://www.cia.gov/news-information/speeches-testimony/1998/walpole_speech_120898.html)

meaning a lightweight payload of biological or chemical weapons—which skeptics called the “golf ball of death.”¹³

In the following year, the U.S. Intelligence Community produced a somewhat-more sober analysis. The 1999 National Intelligence Estimate on “Foreign Missile Developments and the Ballistic Missile Threat to the United States,”¹⁴ suggested a slower pace for the emergence of rogue state ICBMs than Rumsfeld had predicted, but still described ominous future challenges. The NIE added North Korea to the traditional adversaries of Russia and China as countries “most likely” to pose an ICBM threat to the United States by 2015. It added that, by that time, the U.S. would also “probably” face an ICBM threat from Iran, and “possibly” from Iraq.

In the face of political reactions to the surprise TD-I launch, the 1999 NIE did not directly challenge the Rumsfeld Commission’s methodology and conclusions. Moreover, the 1999 NIE adopted methodological changes from prior practice in intelligence community assessments, such as advancing the definition of “ICBM capability” from “operational deployment” to “first flight test,” which could happen years earlier. These little noticed definitional changes made the North Korean missile threat seem more urgent, which broadened political support for abandoning the ABM Treaty -- an agreement, which critics derided as preventing the United States from meeting the ICBM threat it would surely soon face from multiple rogue states.

Exploiting 9/11 to defeat Iraq and justify missile defense

By early 2003, the ABM Treaty was gone; U.S. strategic missile defenses were building momentum on their way to being reintroduced after a 27-year absence. National attention was focused on actions against al-Qaida, the war in Afghanistan, and the impending war with Iraq.

Although North Korea was farther along in its nuclear and missile programs than Iran, and both North Korea and Iran were under far less international constraints than Iraq, Bush chose to conflate the threats posed by the three “rogue” nations and to prioritize action against Saddam Hussein’s Iraq. He emphasized that the threat posed by “axis of evil” countries’ support for terrorism was made much more dangerous by their simultaneous pursuit of weapons of mass destruction.¹⁵ Yet, at that point, Iraq’s previous nuclear weapons program was dormant; its ballistic missile arsenal not only lacked long-range or medium-range systems; it was in the process of losing its premier short-range missile, the Al-Samoud 2.¹⁶

In his March 17, 2003 address to the nation explaining the imminent invasion of Iraq, Bush made no mention of Iraqi ballistic missiles. He ignored the ample evidence emerging prior to the attack that the earlier Iraq WMD assessment of the intelligence community was overblown. Failing to

¹³ Greg Thielmann, “Rumsfeld Reprise? The Missile Report that Foretold the Iraq Intelligence Controversy, *Arms Control Today* (July 2003).

¹⁴ National Intelligence Council, “Foreign Missile Developments and the Ballistic Missile Threat to the United States Through 2015,” September 9, 1999. (<http://www.cia.gov/cia/publications/nie/nie99msl.html>)

¹⁵ Bush introduced the “axis of evil” characterization in his January 29, 2002 State of the Union Address.”

¹⁶ The Al-Samoud 2 SRBM, had demonstrated a range of 180 km, in excess of the 150 km allowed under UN Security Council Resolutions. Under international pressure, Iraq was eliminating its inventory of the missile under supervision of UN inspectors, until the process was interrupted by the U.S./U.K. invasion.

obtain UN Security Council authorization for the attack, the president announced that the United States would invade anyway.

The Unholy Trinity Fades

The Rumsfeld Commission Report's five-year predictions should have been ripe for rebuttal as its fifth anniversary rolled around in July of 2003. It was already evident that the ballistic missile progress of the three non-nuclear weapons states of greatest concern to the United States was radically different than what the commission had forecast. None of them had yet flight-tested an ICBM -- or even an IRBM.¹⁷

The invasion and occupation of **Iraq** had put an end to worries that Saddam Hussein could develop and deploy long-range ballistic missiles in the foreseeable future. Ironically, Iraq had already been the least likely of the three proliferators about which the NIE had warned, because of the terms imposed on it at the end of the First Gulf War. Even the Rumsfeld Commission had projected a 10-year path to an Iraqi ICBM – double the 5-year warning it attached to the others. Yet President Bush had repeatedly asserted in the run-up to the 2003 U.S./U.K. invasion (absent intelligence community validation) that Iraq was in league with al Qaida terrorists and that Iraq had resumed the pursuit of nuclear weapons it had been forced to halt in 1991. The latter assessment, although backed by nearly all entities in the U.S. intelligence community,¹⁸ was a “worst case” judgment, following the loss of first-hand information resulting from Saddam’s ejection of UN inspectors in 1998. It resulted from a combination of sloppy tradecraft and over-attention by many senior officials in the intelligence community to what the White House wanted to hear.¹⁹

Down to Two

Over the next decade, most senior U.S. military and intelligence officials continued to project that North Korea would soon be able to flight-test an ICBM and that Iran could do so by 2015. These twin threat projections provided the principal justification for continuing large annual investments in strategic missile defenses.

¹⁷ See: Greg Thielmann, “Rumsfeld Reprise? The Missile Report That Foretold the Iraq Intelligence Controversy,” *Arms Control Today*, July/August 2003. (<https://www.armscontrol.org/act/2003-07/features/rumsfeld-reprise-missile-report-foretold-iraq-intelligence-controversy>)

¹⁸ Only the State Department’s Assistant Secretary for Intelligence and Research (INR) dissented, contending that the evidence did not support this judgment. (https://www.dni.gov/files/documents/Iraq_NIE_Excerpts_2003.pdf)

¹⁹ According to the prescient “Downing Street Memo,” composed by U.K. Intelligence for Prime Minister Tony Blair following high-level U.S.-U.K. consultations in July of 2002, “the intelligence and facts were being fixed around the policy.” (<https://nsarchive2.gwu.edu/NSAEBB/NSAEBB328/II-Doc14.pdf>) According to Senate Intelligence Committee Chairman Jay Rockefeller’s June 5, 2008 statement in releasing his Committee’s bipartisan Phase II Report on the Bush administration’s use of prewar Iraq WMD intelligence, “In making the case for war, the Administration repeatedly presented intelligence as fact when in reality it was unsubstantiated, contradicted, or even non-existent. As a result, the American people were led to believe that the threat from Iraq was much greater than actually existed.” (<https://www.intelligence.senate.gov/press/senate-intelligence-committee-unveils-final-phase-ii-reports-prewar-iraq-intelligence>)

North Korea, which had long posed the greatest proliferation threat of the three “rogue” states, announced the end of a five-year flight-test moratorium on long-range ballistic missiles in March 2005, in response to the George W. Bush administration’s lack of willingness to pursue high-level talks. It also conducted five nuclear weapons tests from 2006 to 2016.

Aside from an unsuccessful flight test of the Taepo Dong 2 rocket²⁰ in March 2006, North Korea did not launch an ICBM prototype until the July 2017 flight of the Hwasong-14. This launch occurred many years later than the Rumsfeld Commission and U.S. intelligence Community had predicted in the late 1990s. It was slightly behind official U.S. predictions made as late as 2011, which continued the decade-long practice of estimating that North Korea would have an ICBM within five years.²¹

North Korea’s July 2017 launch was followed five months later by a launch of the Hwasong-15, the only North Korean ICBM theoretically capable of targeting the entire U.S. mainland. Some missile analysts outside of government have, however, questioned the payload and reliability of the system, noting the ambiguous results of its single flight-test.

In April of 2018, leading-up to his Singapore Summit with President Trump, North Korea’s leader, Kim Jung-un, announced a new moratorium on nuclear and long-range missile tests. But at the end of 2019, Kim said he would no longer be bound by this self-declared constraint,²² expressing dissatisfaction with the lack of U.S. reciprocity. So, after more than two years of flight-testing only short-range and medium-range missiles, North Korea may be getting ready for additional long-range missile tests.²³ A recent U.S. Defense Department report refers to “the threat posed to the U.S. homeland and our allies” by North Korea’s “increasingly sophisticated nuclear and ICBM flight tests.”²⁴

²⁰ The 1999 Missile Threat NIE had not only predicted the launch of a North Korean ICBM as “most likely” by 2015; it had treated North Korea’s Taepo Dong 2 rocket as essentially an ICBM prototype, “capable of reaching parts of the United States with a nuclear weapon-sized payload,” which “may be ready for flight-testing.” The TD-2 was launched six years later, blowing up shortly into its flight. It was subsequently assessed by both US government and nongovernmental experts as being intended for space launch vehicle development rather than for military use as a missile system. (See: [Military and Security Developments Involving the Democratic People's Republic of Korea](#), U.S. Department of Defense, 2012; and John Schilling, ["Where's That North Korean ICBM Everyone Was Talking About?"](#). 38 *North*. U.S.-Korea Institute, Johns Hopkins University School of Advanced International Studies, 12 March 2015.)

²¹ According to REUTERS, U.S. Defense Secretary Robert Gates said on January 10, 2011 in Beijing that “North Korea will have developed” an ICBM by 2016. (Phil Stewart, “U.S. sees North Korea becoming direct threat, eyes ICBMs,” January 11, 2011.) (<https://www.reuters.com/article/us-korea-north-usa-idUSTRE70A35E20110111>)

²² [BBC News](https://www.bbc.com/news/world-asia-50962768), “North Korea threatens to resume nuclear and ICBM testing,” January 1, 2020, (<https://www.bbc.com/news/world-asia-50962768>)

²³ David Axe, “Looks Like North Korea’s Getting Ready for Major Missile Tests,” *The National Interest*, April 8, 2020.

²⁴ Jacob Fromer, “North Korea’s ‘increasingly sophisticated’ nuclear program threaten U.S.: DOD,” *NK News*, April 7, 2020. (<https://www.nknews.org/2020/04/north-koreas-increasingly-sophisticated-nuclear-program-threatens-u-s-dod/>)

On the fifth anniversary of the Rumsfeld Commission Report, the intelligence community did not yet know that **Iran** would halt its nuclear weapons program several months later.²⁵ But there was already good reason to doubt that Tehran aspired to being able to strike the U.S. mainland with intercontinental-range ballistic missiles. Not only was there little evidence of Iranian efforts to build long-range missiles, there was no evidence of advocacy among Iran’s top leadership on the need to develop such a capability.

In the case of Iran, ballistic missile development has taken a very different path than publicly forecast for many years by the U.S. Intelligence Community. During the first decade of the new century, Iran extensively tested and refined its medium-range Shahab 3 ballistic missile (a variant of North Korea’s No-Dong MRBM). In recent years, Iran has demonstrated a consistent pattern of concentrating on improving missile accuracy and developing more mobile, shorter-range, solid-fuel missile systems rather than on further increasing their range.

Iranian military and civilian leaders have publicly proclaimed that the country has no requirement for a missile with a range in excess of 2,000 km – a range that has still not been exceeded in any flight-tests to date. Iranian MRBMs, which can reach the southeastern corner of Europe are far from being able to target the European heartland, let alone the U.S. mainland, 9,400 km distant from potential Iranian launch sites.

Without nuclear warheads -- the feared end-result of a previous nuclear weapons program that was assessed to have ended in 2003²⁶ -- an Iranian ICBM would make no military sense. In 2015, Tehran agreed to the seven-party Joint Comprehensive Plan of Action (JCPOA), which significantly reduced the chances that Iran would produce nuclear warheads before the middle of the next decade. Following the U.S. violation of its commitments under the JCPOA, there has been credible evidence that Iran may be pursuing space launch technology more directly relevant to the development of longer-range ballistic missile capabilities.²⁷ This activity provides a reminder that an Iranian ICBM armed with nuclear warheads by the end of the decade is theoretically possible, particularly if Tehran concludes it needs a hedge against U.S. aggression. However, it could also merely be evidence of Iran’s determination to become self-sufficient in launching both civilian and military satellites.²⁸

The disappearance of the potential Iraqi ICBM threat, the overestimation of the pace of North Korea’s long-range missile program, and the continuing “no-show” of the long-predicted ICBM threat from Iran were noteworthy developments in and of themselves. But they were also significant for demonstrating the disconnect between threat assessments and ongoing plans for

²⁵ See: National Intelligence Estimate: “Iran: Nuclear Intentions and Capabilities,” (https://www.dni.gov/files/documents/Newsroom/Reports%20and%20Pubs/20071203_release.pdf)

²⁶“Key Judgments From a National Intelligence Estimate on Iran’s Nuclear Activity,” *New York Times*, Dec. 4, 2007. (<https://www.nytimes.com/2007/12/04/washington/04itext.html>)

²⁷ See, for example: Fabian Hinz, “Have Iran’s space ambitions taken a worrisome new turn?” European Leadership Network Commentary, 24 April 2020. (<https://www.europeanleadershipnetwork.org/commentary/have-irans-space-ambitions-taken-a-worrisome-new-turn/>)

²⁸Iran’s first satellite was launched by Russia in 2005. In 2008, China launched a joint Iranian-Chinese-Thai satellite. That same year, Iran became the ninth country to put a domestically-built satellite into orbit using its own launcher. Iran has been conducting its own space launches since then, putting a number of civilian and (in April 2020) one military satellite into orbit.

U.S. strategic ballistic missile defenses. The much slower than predicted evolution of the threat had little effect on the level of effort in U.S. strategic missile defense programs, despite their negative impact on great-power nuclear arms control.

The cart leads the horse

The U.S. decision to abandon the ABM Treaty and deploy strategic missile defense interceptors preceded the appearance of any imminent long-range ballistic missile deployments from states of proliferation concern. So did the George W. Bush administration's decision to negotiate with Poland and the Czech Republic to deploy a U.S. large, phased-array radar and strategic missile interceptors in Europe -- allegedly to prevent Iran from being able to attack the U.S. mainland with ICBMs.

Even the Obama administration's "European Phased Adaptive Approach" proved itself resistant to adaptation when it came to adjusting the schedule for the third-phase deployment of a more capable interceptor to protect Europe against nuclear-armed Iranian IRBMs. The absence of evidence that Iran was developing such systems had no discernable impact on the requirement for early deployment of U.S. SM3-IA interceptors in Poland to shoot them down. Neither did Tehran's compliance (until 2019) with tight JCPOA constraints on its ability to produce fissile material for warheads on such long-range ballistic missiles.²⁹

Are Moscow (and Beijing) "misinterpreting" U.S. Missile Defenses?

From the outset, Moscow has objected to the deployment of U.S. theater missile defenses to Europe. The Russians argued that the mobility of Aegis-equipped warships and the growth potential of Aegis Ashore facilities could threaten Russian strategic systems. They alleged that the Mk-41 multipurpose launchers being deployed could also be armed with land-attack cruise missiles, which were banned under the INF Treaty.

Beijing has long been sensitive to the potential of U.S. missile defenses to absorb whatever nuclear response China could plausibly muster after a U.S. first-strike. The 2019 Worldwide Threat Assessment published by the U.S. Director of National Intelligence explained that China's ongoing strategic modernization is "intended to ensure the viability of China's strategic deterrent by providing a second-strike capability and **a way to overcome missile defenses** [emphasis added]."³⁰ While China's strategic arsenal has been substantially modernized since the end of the Cold War, it remains only one-tenth the size of that possessed by the United States (or Russia).

²⁹ When the United States unilaterally withdrew from the JCPOA in May 2018, the IAEA had repeatedly judged Iran to be in full compliance with its commitments, a determination repeated beyond the agreement's third anniversary. See Kelsey Davenport, "The IAEA Reports – Yet Again – Iran's Compliance with the JCPOA," *Arms Control Today*, December 2018. (<https://www.armscontrol.org/blog/2018-11-30/iaea-reports-yet-again-irans-compliance-jcpoa>).

³⁰ Daniel Coates, *Worldwide Threat Assessment of the U.S. Intelligence Community*, 29 January 2019, p. 9 (<https://www.intelligence.senate.gov/sites/default/files/documents/os-dcoats-012919.pdf>)

In recent years, U.S. actions have confirmed the suspicions in Moscow and Beijing about Washington's true intentions:

- The *raison d'être* of the Polish basing site for Aegis Ashore was allegedly to defend the heart of Europe against Iranian IRBMs. Yet Moscow witnessed how Iran's demonstrated disinterest in IRBMs and the significant mitigation of Iran's nuclear program by Iran's agreement to the seven-party Joint Comprehensive Plan of Action in 2015 had no impact on the deployment schedule for Aegis Ashore Phase 3.³¹
- Russian complaints that the Aegis missile defense launchers could be used for nuclear attacks against targets in Russia, were rejected dismissively with assertions that such use of the launchers would be technically impossible. Yet 16 days after pulling out of the INF Treaty, the United States used an Aegis Ashore Mk 41 launcher to flight-test from land a Tomahawk cruise missile.
- U.S. officials ridiculed Russian expressions of concern that SM3 missile interceptors could threaten Russian ICBMs, arguing that their velocity and location would make such interceptions impossible. Now the very same interceptors are scheduled to be tested against ICBM targets in DoD's FY 2021 program.
- China's objections to THAAD (Terminal High Altitude Air Defense) deployments in South Korea was exacerbated by Beijing's assessment that the system's AN/TPY2 radar could be re-oriented for use against China's strategic nuclear deterrent. Beijing has, no doubt, taken note of two relevant shifts in U.S. missile defense strategy: 1) The SM3-IA now scheduled for testing against an ICBM target is the same system being deployed opposite China on Japanese warships and proposed by Washington for later deployment ashore on the Japanese home islands, and 2) The capabilities of the THAAD missile defense system are also being stretched to give it capabilities against ICBMs.

U.S. missile defenses lead Russia and China to enhance their strategic offenses

These developments only deepen cynicism in Moscow and Beijing about the stated rationale for U.S. strategic missile defenses. In his March 2018 State of the Nation speech, Russia's President Putin introduced six new types of nuclear weapons, claiming they would ensure Russia's ability to defeat U.S. missile defenses and describing them as being necessitated by Washington's deaf reaction to previous warnings.³² In an interview two years later, he again emphasized that "the U.S. tried to upset [the strategic balance] by building ballistic missile shields on American soil and overseas, most notably in Eastern Europe and the Asia-Pacific region." Putin's ambassador

³¹ Although the projected date for this system's initial operational capability eventually slipped by several years, the delay was attributed to technical issues, such as "an unsatisfactory rate of construction progress." See, for example: Paul McLeary, "Crucial Polish Missile Defense Site Delayed Two Years: MDA," Breaking Defense, March 23, 2018.

³² <https://www.rferl.org/a/putin-state-of-nation-speech-annotated/29071013.html>

in Washington, Anatoly Antonov, recently elaborated on this theme, placing “global missile defense” at the top of his list of “factors that significantly impact strategic stability.”³³

After many years of maintaining a flat level of operational strategic nuclear warheads far below that of the United States (and Russia), China has embarked on its own modernization program, increasing the accuracy and survivability of its nuclear arsenal with a small number of new DF-41 ICBMs, which are MIRVed, solid fueled, and road-mobile. According to recent public remarks by the chief of the U.S. Defense Intelligence Agency, China was likely over the next decade, “to at least double the size of its nuclear stockpile.”³⁴ Although DIA’s predictive track record may prompt skepticism about the scale of increases, most outside analysts do predict growth in the number of Chinese warheads that can be targeted against the United States.³⁵

Another reason for the entirely predictable reactions by Moscow and Beijing to U.S. strategic missile defense is that they do not find credible the U.S. claim that North Korea or Iran might initiate a nuclear strike against the U.S. mainland. Indeed, they regard such scenarios as fanciful—merely an excuse for the United States to develop and deploy ever more capable missile defenses, which could ultimately threaten the viability of their own nuclear deterrents.

Why we can’t get the analysis right

There are several explanations for Washington’s use of exaggerated estimates of potential threats from proliferators to justify increased missile defense deployments that provoke Russian and Chinese responses which increase actual strategic threats to the United States and its allies. Some can impact a wide range of national security issues, but are particularly strong on missile defense, while others are more specific to this area of security policy.

Better overestimate than underestimate. Intelligence analysts are internally programmed to provide worst-case projections of threats in order to avoid such painful historical surprises as Pearl Harbor, China’s massive intervention in the Korean War, and the terrorist attacks on September 11, 2001. Since individuals, institutions, and the nation obviously suffer grievously when threats materialize without warning, nothing is perceived to be worse for the intelligence community than failing to provide the national leadership timely warning of a threat. Overestimation, in contrast, is regarded as a lesser sin. Indeed, it is much harder to cite careers curtailed or reputations sullied by false threat warnings – whether of the U.S.-Soviet missile gap in the 1960s or of the reconstituted programs for Iraqi weapons of mass destruction in the lead-up to the U.S./U.K. invasion.

³³“Russia’s View on Nuclear Arms Control: An Interview With Ambassador Anatoly Antonov,” *Arms Control Today*, March 2020 (<https://www.armscontrol.org/act/2020-04/interviews/russias-view-nuclear-arms-control-interview-ambassador-anatoly-antonov>)

³⁴ (<https://www.upi.com/Defense-News/2019/05/31/China-will-double-its-nuclear-warheads-in-next-10-years-DIA-chief-says/1621559319133/>)

³⁵ See: <https://fas.org/blogs/security/2019/05/chinese-nuclear-stockpile/>

Selective release of intelligence community products. Protecting “sources and methods” can be an excuse to avoid mentioning information that runs contrary to the “spin” preferred by political leaders. But even with the best of intentions, withholding particularly sensitive information sometimes keeps intelligence information from being absorbed accurately by decision-makers and the public. Sometimes classified details are needed to understand how conclusions are reached or to convey critical nuance. For example, simply predicting that an ICBM “could” appear within a decade might be interpreted by the public as pointing to a probable event, even if it was reflecting the assessment of a 10 percent possibility. It could also mean that the projected first flight-test date was for a missile prototype, not for the first flight of a deployable weapons system, which might occur years later.

Misleading use of information that is released. Of course, motivations are not always pure or transparent. In making the case for war, the George W. Bush administration conflated nuclear, biological, and chemical weapons in arguing that Saddam “possessed WMD” even though evidence suggesting such possession – however questionable – covered only the latter two (lesser) categories. Senior administration officials conjured up “mushroom clouds” in public messaging about an imminent danger that justified going to war, further obscuring the distinction between WMD categories, even though senior officials knew Iraq did not possess nuclear weapons.³⁶

Bureaucratic momentum. The intelligence community, like any career bureaucracy, is disinclined to take sharp turns. Radical changes regarding intelligence assessments are unwieldy. They may require difficult renegotiations to win clearance from all the stakeholders. They could imply that the same analysts had made serious mistakes in past determinations. When intelligence assessments are too frequently requested of the administration by Congress, there is institutional reluctance to abandon cleared assessment language that required contentious negotiations and difficult compromises in the past, particularly when the interval between assessments is short. The intelligence community’s continuing use of 2015 as the date when Iran was likely to test its first ICBM, despite steadily accumulating contradictory evidence, is a case in point.

The power of money. To state the obvious, there is much money to be made in building strategic weaponry, both offensive and defensive, which can be translated into political clout. The manufacturing process and its attendant supply chain are distributed throughout many congressional districts, maximizing congressional representation for financial stakeholders. A significant portion of the House of Representatives is therefore sensitive to the economic benefits of federal spending on strategic forces. On the operational side, the state economies that benefit most from the expenditures of ICBM and missile defense bases and their personnel are concentrated in sparsely populated western states, whose senators constitute a potent and predictable core of ICBM and missile defense advocacy. For example, the vast majority of strategic defense interceptors are based in Alaska, the third least populated state in the United States, whose senators therefore wield more “power-per-constituent” in that body than all but two other states. The political-economic dynamic of basing issues was on display in recent years

³⁶ In his last message to the nation before the invasion was launched, President Bush stated that Saddam’s arsenal included “the most lethal weapons ever devised” -- a characterization only accurately applied to nuclear weapons -- knowing full well that it did not.

when Congress required the Pentagon to consider locations for basing strategic missile interceptors on the East Coast. New enthusiasm for the concept was unleashed among nearly all members of Congress representing the sites under consideration.

The difficulty of empathizing with foreigners. U.S. policymakers seem incapable of fully appreciating the likely impact on adversaries of U.S. strategic missile defense programs and remain unwilling to provide meaningful reassurance. Many Americans genuinely believe that U.S. motives for deploying missile defense are not only purely peaceful and protective, but also transparently so to all other countries.

Some missile defense advocates also continue to claim, with no empirical evidence, that enhancing U.S. missile defenses will dissuade states of proliferation concern from pursuing offensive systems. Yet, North Korea clearly views U.S. and allied missile defense systems as a hostile threat that must be countered.³⁷ As the United States reinforced its strategic interceptors in Alaska and California, North Korea continued aggressively to advance ballistic missile development, including the flight-test of its longest-range missile yet.

Likewise, Iran's very active and burgeoning SRBM and MRBM activities are occurring in the face of continuing expansion of missile defenses by countries hostile to it -- in Israel, the Persian Gulf, the eastern Mediterranean, and NATO Europe. All such activities refute the notion that missile defenses discourage development and deployment of offensive missile systems.

Unwillingness to tolerate the intolerable. It is a particularly potent American instinct to search for technical solutions to unacceptable military threats -- whether deploying MIRVs to defeat missile defenses, ballistic missile submarines to escape the vulnerability of ICBM silos, or developing stealthy aircraft to mitigate the vulnerability of strategic bombers to air defenses. It is natural then to seek weapons to protect against incoming strategic warheads, especially given the consequences of nuclear detonations. But given the physics of the nuclear offense-defense equation, accepting reality is long overdue. Presidents Reagan and Gorbachev were correct in declaring that "nuclear war cannot be won and must never be fought." It is time for advocates of strategic missile defense to abandon their faith-based belief that American technological ingenuity can provide an escape from nuclear vulnerability.

Darkness before the dawn

The policy guidance provided by the Trump Administration and the FY 2021 budget now emerging from Congress continue to impede the formation of coherent policy. It is revealing that a senior State Department arms control official's five-page conceptual paper on U.S. priorities for "next-generation arms control" involving Moscow and Beijing makes no mention of strategic

³⁷ See, for example, Naoko Aoki, "Seeing Missile Defense as U.S. Hostility, North Korea Aims at More and Better Weapons," CISSM Collection, January 2, 2017. (<https://cisssm.umd.edu/research-impact/publications/seeing-missile-defense-us-hostility-north-korea-aims-more-and-better>)

missile defenses.³⁸ A Defense Department official argues that “a layered homeland missile defense...gives our leaders leverage to negotiate from a position of strength, safe from the specter of coercion.” He later refers to Russian and Chinese complaints about U.S. missile defenses as “doublespeak,” noting that “both countries are actively building their own missile defense systems against all types of threats.”³⁹

The hyper vigilance of policymakers to rogue state ICBM threats stands in stark contrast to the nation’s response to other dangers – from a nuclear exchange between established nuclear powers to potentially catastrophic non-military challenges arising from climate change and pandemics. The annual Worldwide Threat Assessment of the U.S. Intelligence Community warned in January 2019 that: “...*the next flu pandemic or largescale outbreak of a contagious disease...could lead to massive rates of death and disability, severely affect the world economy, strain international resources, and increase calls on the United States for support.*”⁴⁰ Yet this prescient warning did not result in shifting public investments from strategic missile defense (or any other DoD programs) to pandemic protection. Indeed, as COVID-19 began its rapid advance in 2020, there has been no annual Worldwide Threat Assessment presented to the public at all. Instead, the Trump administration’s special envoy for arms control recently boasted of the U.S. government’s willingness, if necessary, to “spend [Russia and China] into oblivion.”⁴¹

It’s time to re-think

During the last two decades, U.S. missile defense programs have been sustained by exaggerating rogue state ICBM threats, overestimating U.S. technical capabilities, and ignoring likely reactions to missile defenses of the two states that actually pose an existential threat to the United States. The faith-based lobby for missile defenses of all kinds in the private sector and in Congress has been passionate and persuasive, seemingly impervious to the emergence of more realistic threat assessments and the discouraging results of intercept tests. Even in the face of the unparalleled coronavirus pandemic, the Trump administration presses on with expanding national and regional missile defense systems, requiring major appropriation increases. And it has launched new departures, such as a prototype space-based laser weapon to destroy ICBMs during their boost and midcourse phases of flight.

The Pentagon’s 2019 termination of the \$5.8 billion⁴² Redesigned Kill Vehicle (RKV) program may represent an unexpected, and unintended opportunity to fundamentally re-evaluate both the most important source of nuclear danger to the United States and its allies, and the most reliable form of protection. This program was initiated in 2016 in response to repeated test failures and serious technical problems associated with the kill vehicle for the Ground-based Missile Defense

³⁸ Christopher A. Ford, “U.S. Priorities for ‘Next-Generation Arms Control,’” Arms Control and International Security Papers, Volume I, Number 1, April 6, 2020. (<https://www.state.gov/wp-content/uploads/2020/04/T-paper-series-1-Arms-Control-2.pdf>)

³⁹ Robert Soofer, “The case for a layered missile defense of the US homeland,” *The Hill*, June 4, 2020. (<https://thehill.com/blogs/congress-blog/politics/501231-the-case-for-a-layered-missile-defense-of-the-us-homeland>)

⁴⁰ Daniel R. Coats, (Op. cit.) p. 21. (<https://www.dni.gov/files/ODNI/documents/2019-ATA-SFR---SSCI.pdf>)

⁴² Paul McLeary, “Pentagon Cancels Multi-Billion \$ Boeing Missile Defense Program,” *Breaking Defense*, August 21, 2019, (<https://breakingdefense.com/2019/08/pentagon-cancels-multi-billion-boeing-missile-defense-program/>)

(GMD) system declared operational during the Bush administration. Yet, the RKV program also encountered major technical problems that would be cost-prohibitive or impossible to fix.

By scrapping that program and starting over with a new solicitation for an entirely new Next Generation Interceptor (NGI) program to address inadequacies in the existing kill vehicle, the Trump administration tacitly accepted a more sober assessment of ICBM proliferation. There is time for a course correction because North Korea is the only “rogue state” ballistic missile threat to the American homeland possible in the near future, with Iran a less likely possibility later in the decade.

The saga of the RKV provides a good illustration of how strategic missile defense has yielded the worst of both worlds – goading Russia and China into greater exertions in nuclear offensive programs, while providing expensive, but less than reliable, missile defense against even the nascent nuclear-armed ICBM capabilities of North Korea.⁴³ Instead of recognizing this dynamic, though, the Trump administration has directed the Missile Defense Agency to utilize existing SM3-IA and augmented THAAD interceptors to establish “layered defenses” against “rogue state” ICBM capabilities, which could emerge before the NGI program is projected to become operational at the end of the decade.

More Americans may come to understand that such actions demonstrate to Moscow and Beijing that Washington’s previous assurances cannot be trusted and reinforce their instincts to counter whatever missile defenses the United States deploys, making these expensive systems a net negative for national security. Anticipated financial pressure on the defense budget as a result of the COVID-19 pandemic may also help curb enthusiasm for new strategic missile defense initiatives in the Executive Branch and in Congress.

Prescriptions for reducing national security threats

A logical reordering and rationalization of thinking should start by stopping the hyping of “rogue state” ICBM threats, which has resulted in pushing strategic missile defenses that heighten the overall nuclear offensive threat the United States faces. Future policy should also embrace the following principles:

- The highest priority for nuclear arms control is to reduce the size of large nuclear arsenals and enhance their stability – i.e., reducing incentives for initiating their use in times of crisis. President Putin resisted President Obama’s 2013 offer to negotiate a further one-third reduction in the size of the U.S. and Russian nuclear arsenals because of concerns about missile defense. President Trump has further erred in not accepting Putin’s recent offer to

⁴³ According to defense industry expert Loren Thomson, “a draft solicitation for the NGI was issued to industry, describing the need for a much more capable system to negate North Korean attacks, “specifying nearly 50 threat scenarios in which the new system would need to work effectively. Some of the scenarios involved demanding challenges that are not within the operational ‘envelope’ of the existing defensive network.” Loren Thompson, “Inside the U.S. Missile Defense Agency’s Secret Next Generation Interceptor,” *Forbes*, October 8, 2019 (<https://www.forbes.com/sites/lorenthompson/2019/10/08/inside-the-missile-defense-agencys-secret-next-generation-interceptor/#4e26903b2663>)

extend New START for an additional five years. Future negotiations with Russia (and China) must incorporate limits on strategic missile defense in order to enhance stability and facilitate reductions in strategic offensive forces.

- The highest priority for nuclear nonproliferation is to prevent development or deployment of nuclear warheads rather than their delivery systems. The 2015 JCPOA between Iran and six other countries was an appropriate application of this principle. Likewise, the challenging negotiations with Pyongyang should start with extending North Korea's nuclear testing moratorium, which is directly connected to the important wider goal of bringing the Comprehensive Nuclear Test Ban Treaty (CTBT) into effect.
- Greater efforts must be made to avoid any use of force that has not been authorized by the UN Security Council. The 2003 invasion of Iraq and Russia's 2014 aggression against Ukraine are the most persuasive 21st Century examples of the costs of disregarding this principle.
- Incentives for establishing transparency of military activities and maintaining communications between adversaries in crises must be increased. Russian failures to adhere strictly to the Open Skies Treaty and the precipitous U.S. withdrawal from that treaty are the opposite of what is needed.
- Cooperation between political adversaries must be enhanced wherever interests overlap. There is a compelling case for international cooperation in the field of slowing climate change, enhancing global health care, establishing operational rules-of-the-road for movement on the world's oceans, and in space. Continuing U.S.-Russian cooperation in manning and re-supplying the International Space Station demonstrates that it can be done.

Such changes in policy and practice could pave the way to achieving lower nuclear arsenals and a more stable international order, while freeing resources to combat the growing non-traditional security threats we now increasingly face.

About the Author

Greg Thielmann is a board member of the Arms Control Association and a commissioner of the U.S.-Russian-German "Deep Cuts" Project. He previously served more than three decades in the executive and legislative branches of the U.S. Government, including the Foreign Service (in Washington, Bonn, Moscow, Brasilia, and Geneva), the Senate Select Committee on Intelligence, and the Office of Management and Budget, specializing in political-military and intelligence issues. He retired from the State Department in 2002 as Office Director for Strategic, Proliferation, and Military Affairs in the Bureau of Intelligence and Research. Thielmann is a member of the Council on Foreign Relations. He is a graduate of Grinnell College, from which he received an honorary doctorate in 2009, and of the Princeton School of Public and International Affairs.