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EDITOR'S NOTE

Welcome to the final issue of the *Journal of Policy & Strategy* for 2025. This issue's Analysis section features five articles that substantively contribute to contemporary debates on significant defense issues. The first feature is a pair of articles, authored by Michaela Dodge and Keith B. Payne, and James Anderson and David Trachtenberg respectively, that examine Putin's invitation to extend the central limits of New START. The third article is Rodger Baker's analysis of China's power and potential geopolitical directions. The fourth article by Curtis McGiffin analyzes the role of technology as an instrument of state power. Fifth is Cody Stamm's discussion of the West's unfolding competition with Russia and China in the Arctic.

This issue's interview section features Ambassador Henry Cooper, former Director of the Strategic Defense Initiative Organization. The subject of the interview, conducted by Michaela Dodge, is missile defense and the prospects and necessity of the Trump Administration's Golden Dome program.

The Proceedings section highlights National Institute for Public Policy's webinars held in July and August 2025. The July webinar, hosted by David J. Trachtenberg, included presentations by Keith Payne and Ilan Berman on the implications of the Middle East Conflict for deterrence and nonproliferation. The August webinar focused on National Institute's 2025 study entitled, *A New Strategic Review for a New Age: 2025*. The speakers, Keith Payne, Franklin Miller, Tom Scheber, Mark Schneider, and David Trachtenberg, provided commentary on U.S. nuclear policy and posture requirements in the looming threat environment.

The Literature Review section features David Trachtenberg's review of the National Institute for Deterrence Studies' publication, *Peace Through Strength: Renewing America's Nuclear Deterrent—A Proposed Nuclear Posture Review for 2026*. The second review, by Michaela Dodge, is of A. Wess Mitchell's recent book entitled *Great Power Diplomacy: The Skill of Statecraft from Attila the Hun to Kissinger*.

The Documentation section in this issue contains four recent primary documents. The first includes select excerpts from the recently released *National Security Strategy*. The section also includes select excerpts from the Senate Armed Services Committee's Hearing to Consider the Nomination of the Honorable Robert P. Kadlec to be Assistant Secretary of Defense for Nuclear Deterrence, Chemical, and Biological Defense Policy and Programs. The third is Prime Minister Benjamin Netanyahu's statement from his September 2025 visit to the White House. The final document includes select excerpts from the November 2025 U.S.-China Economic and Review Commission Report to Congress.

Finally, the issue's Archive section features Mark Schneider's February 2014 *Information Series*, No. 360, entitled "Confirmation of Russian Violation and Circumvention of the INF Treaty." This article provided an early public discussion of Russia's violations of the INF Treaty.

As always, we hope you, the readers, will enjoy and find useful this issue of the *Journal of Policy & Strategy*.





ANALYSIS

PUTIN'S NEW START OFFER: WE WON'T GET FOOLED AGAIN

Michaela Dodge and Keith B. Payne

The New Strategic Arms Reduction Treaty (New START) is set to finally expire in February 2026, after being extended for five years by the Biden Administration in 2021. Russian President Vladimir Putin recently offered to “continue adhering to the central numerical limits under the New START Treaty” for a year beyond the Treaty’s already-extended expiration date.¹ Putin’s offer should easily be recognized for the cynical ploy it is, given the undeniable truth that Russia ceased observing New START years ago, including closing down all the critical on-site verification measures. Nevertheless, some Americans seem tempted to take the bait cast by Putin.

Beyond the hypocrisy involved in Putin’s offer, further extending U.S. observance of New START now would constrain the low-cost U.S. option of adding to its nuclear deterrent in the near term via the uploading of existing weapons on existing platforms—as is now needed given the dramatically increased Russian and Chinese nuclear threats and cooperation that have developed since New START was signed in 2010.² Extending observance of New START again would leave the United States much worse off, while allowing the Treaty to expire naturally would not damage relations with Russia or China. The practical reality of arms control in general, and New START in particular, is that more often than not the process harms U.S. national security because Washington abides by the letter and “spirit” of agreements while authoritarian adversaries violate and subvert them—leaving the United States worse off with arms control treaties than without them. Despite the incessant hype behind arms control, this has been the reality for more than a century.

Accepting Putin’s offer to extend New START’s “central numerical limits” now would be a perfect setup for Moscow and a flouting of Ronald Reagan’s frequent admonition to “trust but verify.” Washington would continue to follow those limits scrupulously while Russia almost certainly would not. Given Moscow’s shutting down of on-site verification years ago, the United States very likely does not now know Russia’s force numbers and could not be confident of its future compliance. What more could Putin want beyond the continuation of force limits that the United States would reliably follow, while Russian compliance could not be adequately verified? His offer would be comical if not so serious.

For arms control proponents, the scheduled expiration of New START is something to be feared because it “would mean the end of the only remaining constraint on U.S. and Russian

This article is adapted from, Michaela Dodge and Keith B. Payne, “Putin’s New START Offer: We Won’t Get Fooled Again” *Information Series*, No. 640 (Fairfax, VA: National Institute Press, October 21, 2025).

¹ See Andrew Osborn, Vladimir Soldatkin and Jonathan Landay, “Putin offers Trump one-year extension to nuclear weapons treaty,” *Reuters*, September 23, 2025, <https://www.reuters.com/world/putin-offers-trump-temporary-nuclear-arms-control-deal-that-would-extend-status-2025-09-22/>.

² For a detailed study on the topic see, Mark B. Schneider and Keith B. Payne, *Tailored Deterrence and Low-Cost Nuclear Weapons Upload*, *Occasional Paper*, Vol. 5, No. 6 (Fairfax, VA: National Institute Press, June 2025), <https://nipp.org/wp-content/uploads/2025/07/Vol.-5-No.-6.pdf>.



nuclear force levels.”³ That is true in a narrow legalistic sense, but the reality is that arms control has very little relevance to how Russia plans and structures its nuclear forces. When it is in Russia’s interest to comply with its arms control obligations, it does so. However, Moscow frequently simply violates or subverts them. Russia’s forces are driven not by arms control limits, but by Moscow’s nuclear strategy demands, and they are constrained by budgetary and technological limitations. The inconvenient truth is that many arms control proponents fear the expiration of New START not primarily because the treaty actually constrains Russian forces, but because it constrains U.S. forces—the minimization of which is ever their goal.

Arms Control: Irrelevant When One Needs It

The arms control process cannot, by its very limitations, accomplish for U.S. national security what its advocates advertise. The eminent strategist Colin Gray quipped many years ago that arms control is either “impossible or unimportant.”⁴ His observation was based on extensive study of arms control history. Arms control is a reflection of political relations among states; it has no innate power to improve them, as advocates of the process typically postulate.⁵ This truth has been demonstrated repeatedly over the past century.

“Arms control agreements,” Gray further added, “have the effect of focusing attention on the strategically irrelevant question of whether a tolerably even balance of forces has been negotiated. Save with isolated reference to the arms control process, the United States has no interest in achieving a tolerably even balance of forces [with the Soviet Union].”⁶ What mattered, Gray said, was “the net freedom of action permitted each side and of the implications of that judgment for conflict outcomes at all levels.”⁷ The U.S. freedom to defend distant allies ultimately is the basis for “stability,” and that freedom is dependent on the capability and credibility of U.S. nuclear deterrence. It is more important now than ever given Russian, Chinese and North Korean threats to U.S. allies. The United States, as a status quo power with a global alliance structure under threat, needs a nuclear deterrent that is adequate to prevent multiple-party attacks on itself and its allies—which may have little to

³ Steven Pifer, “Responding to Putin’s Proposal to Extend New START,” *Freeman Spogli Institute for International Studies*, October 2, 2025, <https://fsi.stanford.edu/news/responding-putins-proposal-extend-new-start>.

⁴ Colin S. Gray, *House of Cards* (Ithaca, New York: Cornell University Press, 1992), p. X.

⁵ Jerome Wiesner, former Chairman of President Kennedy’s Science Advisory Committee, claimed in all seriousness that U.S. unilateral disarmament steps could “even start a peace race.” See *ABM, MIRV, SALT, and the Nuclear Arms Race: Hearings Before the Subcommittee on Arms Control, International Law and Organization of the Committee on Foreign Relations*, U.S. Senate, 91st Congress, 2nd Session (Committee on Foreign Affairs, 1970), [https://babel.hathitrust.org/cgi/pt?id=uc1.\\$b643705&view=1up&seq=7](https://babel.hathitrust.org/cgi/pt?id=uc1.$b643705&view=1up&seq=7).

⁶ Colin Gray, “The Strategic Implications of the Nuclear Balance and Arms Control,” in Richard Staar, ed., *Arms Control: Myth Versus Reality* (Stanford, CA: Hoover Institution Press, 1984), p. 24.

⁷ *Ibid.*, p. 26.

do with some academic calculation of forces that are in “balance” with Chinese or Russian forces.⁸

During New START negotiations, Ambassador Steven Pifer argued that “The relationship [between the United States and Russia] has improved substantially since then [the treaty negotiations started], and New START has been a major driver of that improvement.”⁹ Such claims are now manifestly preposterous since Russia invaded Ukraine (the first time) just three years after New START entered into force, and again eight years later. How does one square the value of this supposed “improvement” with the reality of Moscow’s repeated criminal aggression, New START violation and subversion, and its expansion of nuclear forces? This is the actual legacy of the Obama Administration’s ramming a rather bad treaty through a “lame duck” session of Congress, with the support of some Republicans.

Yet, hope springs eternal. The 2022 *Nuclear Posture Review* (NPR) called arms control “the most effective, durable and responsible path to reduce the role of nuclear weapons in our strategy and prevent their use.”¹⁰ This is nonsense; the United States cannot expect that an agreement with a dedicated adversary, rather than the hard work of building U.S. forces commensurate to the threat, will solve U.S. national security problems.

Russia’s political goals are fundamentally at odds with those of the United States. Russia’s arms control goals have everything to do with preserving its power and freedom of action, and constraining U.S. power and freedom of action as much as possible. Moscow approaches arms control from an entirely pragmatic, power politics perspective that assumes a zero-sum game, while U.S. officials historically have imagined idealistic outcomes wholly divorced from reality. This is the enduring recipe for Washington’s continuing disappointment with the consequences of arms control agreements when they are (rarely) held up to serious scrutiny.¹¹ For decades, arms control treaties have served as a reliable source of adversarial leverage over the United States due to pathologies that are seemingly inherent in the U.S. approach to negotiations, including: giving authoritarian opponents the benefit of compliance doubts, assuming that they will aspire to follow model U.S. behavior, and expecting that arms control will be the dynamic that improves political relations among states.¹²

⁸ Bill Gertz, “China warhead arsenal to hit 1,500 in five years, Air Force chief nominee reveals,” *The Washington Times*, October 10, 2025, <https://www.washingtontimes.com/news/2025/oct/10/china-warhead-arsenal-hit-1500-five-years-air-force-chief-nominee/>.

⁹ “The New START and Implications for National Security,” *Hearings before the Committee on Armed Services, United States Senate, One Hundred Eleventh Congress* (Washington, D.C.: USGPO, June 17, July 15, 20, 27, and 29, 2010), <https://www.govinfo.gov/content/pkg/CHRG-111shrg65071/html/CHRG-111shrg65071.htm>.

¹⁰ U.S. Department of Defense, *2022 Nuclear Posture Review*, 2022, p. 16, <https://dod.defense.gov/News/Special-Reports/NPR/>.

¹¹ See Keith B. Payne, Michaela Dodge, Matthew Costlow and David Trachtenberg, *The Pernicious Effects of Arms Control Misconceptions on Extended Deterrence and Assurance, Occasional Paper*, Vol. 4, No. 9 (Fairfax, VA: National Institute Press, September 2024).

¹² See a comprehensive examination of enduring U.S. arms control pathologies in, Michaela Dodge, *Enduring Myths of Arms Control: A Century of Experience, Occasional Paper*, forthcoming 2026.

Fundamentally Flawed New START

The long-standing presumption regarding the connection between arms control negotiations and improved political relations leads to the pursuit of arms control for the sake of its expected political effect, while the detailed substance is considered secondary. New START brilliantly illustrates this logic—and leaves much to be desired from the perspective of the capacity of the U.S. Government to arrive at a reasonably useful arms control treaty.

Substantively, New START has been a deeply flawed agreement—beginning with a much-weakened verification regime compared to that of earlier agreements. In 2010, at the time of hearings on New START, then-Senator Christopher Bond (R-MO) stated that, “As the vice chairman of this committee [the Senate Select Committee on Intelligence], I have reviewed the key intelligence on our ability to monitor this treaty [New START] and heard from our intelligence professionals. There is no doubt in my mind that the United States cannot reliably verify the treaty’s 1,550 limit on deployed warheads.”¹³

In addition, New START required the United States to bear a majority of reductions in most categories the treaty defines, while permitting Russia to build up to the treaty limits.¹⁴ Then-Russian defense minister, Anatoly Serdyukov, was undoubtedly pleased when he said, following New START’s entry into force in February 2011, that Russia could build up to the treaty limits by 2028 (well past the treaty’s 2026 expiration date).¹⁵ During the Senate advice and consent considerations, the Obama Administration unsurprisingly did not acknowledge that the treaty required unilateral U.S. reductions.¹⁶ The enduring allure of arms control as the solution to security problems, unreasonably optimistic expectations regarding Russia, and political expediency won over a prudently skeptical treaty assessment, which should have resulted in the treaty’s rejection.

Many of the perpetrators of misleading and demonstrably mistaken narratives regarding New START, and arms control in general, continue their advocacy for the *next* arms control agreements with Russia (and China) based on the same flawed assumptions that got the United States into the current difficult position of trying to maintain nuclear deterrence vis-à-vis determined, well-armed, and cooperating adversaries with a strategic force structure set in 2010.¹⁷

¹³ Christopher Bond, “The New START Treaty,” *The Congressional Record*, November 18, 2010, <https://www.congress.gov/111/crec/2010/11/18/CREC-2010-11-18-pt1-PgS8093.pdf>.

¹⁴ U.S. Department of State, “A Rebuttal to Sen. Kit Bond’s November 18, 2010 Floor Speech in the U.S. Senate on the New START Treaty,” November 24, 2010, <https://2009-2017.state.gov/t/avc/rls/151981.htm>.

¹⁵ Keith B. Payne, “New START: From Russia with Glee,” *National Review*, June 13, 2011, <https://www.nationalreview.com/2011/06/new-start-russia-gee-keith-b-payne/>.

¹⁶ See Keith B. Payne, “Postscript on New START,” *National Review*, January 18, 2011, <https://www.nationalreview.com/2011/01/postscript-new-start-keith-b-payne/>.

¹⁷ See Keith B. Payne, “Nuclear Deterrence in Question: How We Got Here, and What to Do,” *Information Series*, No. 639, October 6, 2025, https://nipp.org/information_series/keith-b-payne-nuclear-deterrence-in-question-how-we-got-here-and-what-to-do-no-639-october-6-2025/#_edn10.

Unwarranted U.S. Expectations Lead to Poor Results

When the Biden Administration extended New START in February 2021 with no preconditions,¹⁸ arms control advocates postulated that such an extension “would provide the new president with an early win and positive momentum, help restore U.S. credibility on arms control issues, and create the potential for more ambitious steps to reduce the nuclear danger and move us closer to a world without nuclear weapons.”¹⁹ Instead, Russia invaded Ukraine the second time in eight years in February 2022 in an attempt to subjugate the entire country, and issued a continuing series of explicit nuclear threats of a third world war to deter and delay Western help for Ukraine.²⁰ This tactic has been at least partially successful.

The Biden Administration’s New START extension was that much more nonsensical because, by 2021, the scale of China’s nuclear modernization and cooperation with Russia had become apparent. The U.S. force posture under New START presupposed that Russia would abide by the treaty limits and that it would not cheat, assumptions that defy historical experience, because Russia (and the Soviet Union before it) has violated almost every arms control agreement it has ever signed.²¹ Additionally, Washington apparently assumed that no other country would significantly expand its nuclear forces while New START remains in force. The historical reality since 2010 has revealed the breathtaking falsity of these basic U.S. presumptions—yet arms control proponents discuss New START now as if those deeply mistaken presumptions are valid.

By 2021, then-Commander of the U.S. Strategic Command Charles Richard referred to China’s nuclear expansion as “breathtaking” and a “strategic breakout.”²² Perhaps even more worrisome has been Russia’s and China’s strategic cooperation aimed at disrupting the U.S. alliance system and redrawing national borders via “gray area” and military aggression, if necessary.²³ Never before has the United States had to worry about two cooperating nuclear-armed peer competitors, with both countries far superior to the United States at the regional nuclear force level.

¹⁸ The 10-year treaty provided an option for a five-year extension, on which both countries agreed in 2021.

¹⁹ Daryl G. Kimball, “Biden’s First Challenge: Extend New START,” Arms Control Association, January/February 2021, <https://www.armscontrol.org/act/2021-01/focus/bidens-first-challenge-extend-new-start>.

²⁰ Michaela Dodge, “Next Steps in Arms Control? Lessons from Moscow’s New START Violations,” Information Series, No. 619 (Fairfax, VA: National Institute Press, March 4, 2025), https://nipp.org/information_series/michaela-dodge-next-steps-in-arms-control-lessons-from-moscows-new-start-violations-no-618-march-4-2025/.

²¹ “The New START and Implications for National Security,” *Hearings before the Committee on Armed Services, United States Senate, One Hundred Eleventh Congress*, op. cit.

²² John Vandiver, “‘Breathtaking expansion’: US Strategic Command leader expects further revelations of China’s nuclear weapons advancement,” *Stars and Stripes*, October 18, 2021, <https://www.stripes.com/theaters/europe/2021-10-18/china-us-russia-nuclear-weapons-hypersonics-stratcom-3283272.html>.

²³ Peppino DeBiaso, “The Rise of a New Axis: Great Power Struggle and the Future of Conflict,” *Information Series*, No. 622 (Fairfax, VA: National Institute Press, April 8, 2025), https://nipp.org/information_series/peppino-debiaso-the-rise-of-a-new-axis-great-power-struggle-and-the-future-of-conflict-no-622-april-8-2025/.

Conclusion

Despite U.S. efforts to keep the arms control process alive, Russia ended up subverting, violating and then suspending New START. The Biden Administration's New START extension resulted in none of the promised advantages; the treaty continues to hamstring U.S. strategic forces, which is a very undesirable state given that they are taking on a greater regional deterrence burden. The continuation of this undesirable state is behind Putin's recent offer to extend the observance of New START limits past the treaty's already-extended expiration date. Such an extension would be an excellent deal for Russia, which even the Biden Administration found to be in violation of the treaty. U.S. agreement would mean forgoing the limited options Washington has to adapt its nuclear deterrence forces to new geopolitical threat realities in the near term—the most immediately available of these being the uploading of warheads on existing delivery systems.

During the New START debate in the U.S. Senate, the late Dr. John S. Foster Jr. wondered about the following: "I don't understand why we go to the trouble of negotiating with a potential adversary with the understanding that the adversary is going to cheat."²⁴ Continuing to adhere to New START limits in today's deplorable geopolitical environment and with a full knowledge of Russia's cheating would be the height of folly. With a century of authoritarian arms control cheating and subversion, and 15 years of comparable experience with New START, Washington should know better; this history does repeat itself. Have any lessons been learned? Here is to hoping that we won't get fooled again.

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²⁴ "The New START and Implications for National Security," *Hearings before the Committee on Armed Services, United States Senate, One Hundred Eleventh Congress*, op. cit.



ANALYSIS

TIME TO END NEW START: THE TREATY IS NOT IN AMERICA'S SECURITY INTEREST

James H. Anderson and David J. Trachtenberg

Various analysts and arms control proponents are salivating over President Trump's recent comment that Vladimir Putin's proposal to extend the numerical limits of the New START arms control treaty for one year after its formal expiration next February "sounds like a good idea."¹ Arms control advocates see New START—the last remaining strategic nuclear arms control treaty still in force—as a necessary brake on a nuclear arms race that could spiral out of control and lead to massive increases in nuclear weapons. Even foreign governments are urging Trump to agree to Putin's proposal and to negotiate further arms reductions. For example, the Austrian Foreign Ministry stated, "We welcome the readiness by Russia & the U.S. to adhere to the #NewSTART limits for a year after expiry. More nuclear weapons won't make anyone safer – neither the U.S., nor Russia nor the rest of the world. Let us use this time to get to deeper cuts through a new agreement."²

Such thinking is misplaced and naïve. It ignores the lessons of history, the extensive record of Russian arms control cheating, the disparity in Russian and U.S. nuclear modernization programs, and the wildly divergent strategic goals and objectives of both sides. New START also imposes no restrictions on China's burgeoning nuclear force while restricting America's flexibility to adapt its nuclear force posture to meet dynamic and increasingly demanding deterrence requirements. This includes preventing the United States from uploading nuclear weapons to strengthen deterrence in the face of extensive nuclear weapons buildups by both Russia and China. In short, the New START Treaty is not in America's national security interest and President Trump should kill it or at least let it die a natural death.

Here is why proponents of extending the treaty are mistaken. First, the treaty was negotiated 15 years ago when the relationship between Russia and the United States was thought to be improving. That world no longer exists. Since then, Russia has illegally annexed Crimea, invaded Ukraine, signed a "no limits" friendship treaty with China, expanded military cooperation with North Korea and Iran, launched aerial incursions into NATO airspace, upgraded its existing nuclear arsenal, developed more modern and exotic nuclear weapons unrestricted by any arms control agreement, and brandished nuclear threats against the

This article is adapted from, James H. Anderson and David J. Trachtenberg, "Time To End New START: The Treaty Is Not in America's Security Interest" *Information Series*, No. 644 (Fairfax, VA: National Institute Press, November 14, 2025).

¹ Andrea Shalal, "Trump says Putin's offer on nuclear arms control 'sounds like a good idea'," *Reuters*, October 5, 2025, <https://www.reuters.com/world/europe/trump-says-putins-offer-nuclear-arms-control-sounds-like-good-idea-2025-10-05/>.

² MFA Austria, X Post, October 6, 2025, https://x.com/MFA_Austria/status/1975265278444642357.



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United States, NATO, and Ukraine. Clearly, Russian actions belie Putin's expressed desire to avoid "steps that would undermine or disrupt the existing balance of deterrence."³

Second, Russia has been violating the treaty for years. Despite President Biden agreeing in 2021 to extend the treaty for five years, Moscow ceased allowing mandatory inspections required by New START in August 2022, effectively eviscerating the transparency and predictability that the treaty was intended to guarantee.⁴ In February 2023, Russia officially "suspended" its participation in the treaty.⁵ Moscow has reportedly armed some of its bombers with long-range cruise missiles, refusing to count them as strategic systems even though the treaty makes them legally accountable. This would place Russia above the New START limits. And there is mounting evidence of other Russian missile and warhead deployments that exceed allowable New START levels.⁶ It makes no sense to extend the numerical limits of a treaty when the other party is a serial violator of it.

Third, Moscow has been engaged in a massive, across-the-board nuclear modernization program that has resulted in the deployment of an up-to-date, sophisticated nuclear arsenal and has used coercive nuclear threats to deter the United States and NATO from providing more robust support to Ukraine. Early last year, Putin declared Russia's strategic modernization efforts to be 95 percent complete.⁷ By contrast, the U.S. nuclear modernization program has been long delayed and is under constant siege by those who support an anti-nuclear, pro-disarmament agenda.⁸ Moreover, virtually all U.S. nuclear forces are accountable under New START while thousands of Russian nuclear warheads are unconstrained by the agreement.⁹ Given this gross asymmetry, the assertions of arms control advocates that New START is necessary to cap the "arms race" lacks credibility when only one side—Russia—is racing.

Fourth, the treaty is a bilateral agreement between the United States and Russia. China is not a party to it and its nuclear forces are unconstrained by its limitations. Beijing is engaged in an extensive, quantitative and qualitative nuclear expansion program that the former commander of U.S. Strategic Command has referred to as "breathtaking" and a "strategic

³ Xiaodon Liang, "Russia Proposes One-Year New START Extension," *Arms Control Today*, October 2025, <https://www.armscontrol.org/act/2025-10/news/russia-proposes-one-year-new-start-extension>.

⁴ "Russia halts US inspections of nuclear arsenal under New START treaty," *BBC*, August 8, 2022, <https://www.bbc.com/news/world-europe-62466998>.

⁵ "Putin: Russia suspends participation in last remaining nuclear treaty with U.S.," *Reuters*, February 21, 2023, <https://www.reuters.com/world/europe/putin-russia-suspends-participation-last-remaining-nuclear-treaty-with-us-2023-02-21/>.

⁶ Mark B. Schneider, "Recent Evidence of Russian Arms Control Violations," *RealClear Defense*, September 12, 2025, https://www.realcleardefense.com/articles/2025/09/12/recent_evidence_of_russian_arms_control_violations_1134367.html.

⁷ "Putin says nearly all of Russia's nuclear forces have been modernized," *Reuters*, February 23, 2024, <https://www.reuters.com/business/aerospace-defense/putin-says-95-russias-nuclear-forces-have-been-modernised-2024-02-23/>.

⁸ Robert Peters, "Modernizing America's Nuclear Arsenal," *The Heritage Foundation*, July 2, 2025, <https://www.heritage.org/defense/commentary/modernizing-americas-nuclear-arsenal>.

⁹ Pranay Vaddi, "Beware Russia Bearing Arms Control Gifts," *RUSI*, October 3, 2025, <https://www.rusi.org/explore-our-research/publications/commentary/beware-russia-bearing-arms-control-gifts>.

breakout.”¹⁰ Indeed, the Department of Defense has considered China to be the “pacing threat” governing the development, acquisition, and deployment of U.S. military capabilities. Beijing has been developing and deploying nuclear capable systems—including intermediate-range nuclear forces—that the United States was prohibited from fielding for just over three decades because of its strict adherence to the 1987 Intermediate-Range Nuclear Forces (INF) Treaty it signed with Moscow.¹¹ China’s consistent refusal to engage in arms control discussions with the United States exposes the fallacy of abiding by a treaty that allows the nuclear forces of America’s main rival to grow unconstrained.

Fifth, continuing to abide by the numerical limits of New START will prevent the United States from uploading weapons on existing delivery platforms. As a recent National Institute for Public Policy study concluded, weapons upload is the only near-term and affordable option to strengthen deterrence against Russia and China in the face of their extensive nuclear modernization programs.¹² This is consistent with the 2023 bipartisan recommendations of the Strategic Posture Commission, which called on the Air Force and Navy to “[P]repare to upload some or all of the nation’s hedge warheads” and to do so “with urgency.”¹³ Uploading nuclear weapons will also bolster the credibility of the U.S. extended deterrent and help assure allies in both Europe and Asia of America’s unwavering commitment to their own security, especially in light of repeated coercive nuclear threats by Moscow and Beijing.

Sixth, continuing to lock the United States into strict numerical force levels limits U.S. flexibility to respond to changes in the overall strategic environment. In today’s dynamic international environment, where the United States now faces not one, but two, major nuclear adversaries—both of which are significantly expanding their own nuclear weapons and capabilities—preventing the United States from adding, as necessary, to its nuclear force levels will ensure a period of U.S. nuclear inferiority vis-à-vis America’s two main geopolitical rivals. When considering Moscow’s and Beijing’s escalatory nuclear threats and penchant for provocations, such a situation is the antithesis of stability, which is what the New START Treaty was supposed to promote.

Finally, and perhaps most importantly, arms control treaties cannot address the profound underlying political differences that define the U.S.-Russian relationship. The United States has looked to arms control in general, and New START in particular, to enhance strategic stability. Yet, Russia is not interested in preserving the stability of a world in which the United States is the dominant power. Indeed, Russia is seeking to overturn the existing

¹⁰ Aaron Mehta, “STRATCOM Chief Warns Of Chinese ‘Strategic Breakout’,” *Breaking Defense*, August 12, 2021, <https://breakingdefense.com/2021/08/stratcom-chief-warns-of-chinese-strategic-breakout/>.

¹¹ The Trump Administration withdrew the United States from the INF Treaty in August 2019 as a result of Russian cheating.

¹² Dr. Keith B. Payne, et al., *A New Strategic Review for a New Age: 2025* (Fairfax, VA: National Institute Press, 2025), https://nipp.org/monographs_cpt/a-new-strategic-review-for-a-new-age/.

¹³ Madelyn R. Creedon Jon L. Kyl, et al., *America’s Strategic Posture: The Final Report of the Congressional Commission on the Strategic Posture of the United States*, October 2023, pp. 48, 99, <https://www.ida.org/-/media/feature/publications/a/am/americas-strategic-posture/strategic-posture-commission-report.ashx>.

world order and displace the United States as the predominant global power.¹⁴ Putin himself has declared that “a serious, irreconcilable struggle is unfolding for the development of a new world order.”¹⁵ Under these conditions, where the strategic goals and objectives of the parties are intractably at odds, the belief that arms control can benefit U.S. national security interests is wishful thinking at best and dangerous naivete at worst.

The New START Treaty is a relic of a bygone era, and its expiration should be welcomed, not lamented. Given that China is unshackled from its limits, along with Russia’s massive nuclear weapons buildup, violations of New START, frequent coercive nuclear threats, and desire to overturn the existing U.S.-led world order, Washington should move expeditiously to strengthen its deterrent by fully modernizing its own ageing nuclear arsenal and deploying a robust Golden Dome missile defense system to protect the American people in the event deterrence fails.

After Biden extended New START, Putin suspended it. President Trump should not make the same mistake. The president should rethink his initial reaction to Putin’s “good idea” and just say “nyet.” It is time to end New START.

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¹⁴ David J. Trachtenberg, “Why Arms Control Must Fail,” *Information Series*, No. 627 (Fairfax, VA: National Institute Press, June 12, 2025), available at https://nipp.org/information_series/david-j-trachtenberg-why-arms-control-must-fail-no-627-july-12-2025/#_edn16.

¹⁵ Vladimir Putin, “Valdai Discussion Club Meeting,” November 7, 2024, available at <http://en.kremlin.ru/events/president/news/75521>.



ANALYSIS

UNDERSTANDING CHINA AND U.S. OPPORTUNITIES

Rodger Baker

“The PRC is combining its economic, diplomatic, military, and technological might as it pursues a sphere of influence in the Indo-Pacific and seeks to become the world’s most influential power.”

Indo-Pacific Strategy of the United States, February 2022¹

“The PRC ... is the only competitor with both the intent to reshape the international order and, increasingly, the economic, diplomatic, military, and technological power to advance that objective.”

National Security Strategy of the United States, October 2022²

“China has the capability to directly attempt to alter the rules-based global order in every realm and across multiple regions, as a near-peer competitor that is increasingly pushing to change global norms and potentially threatening its neighbors.”

Annual Threat Assessment of the U.S.
Intelligence Community, February 2023³

The United States and China now stand at a strategic crossroads. For the first time since the end of the Cold War, the United States government, through its strategic documents, identifies a single state—the People’s Republic of China (PRC)—as the primary competitor to the United States, with both the intent and capacity to reshape the international order. Washington’s reassessment of China has converged with Beijing’s transition from a traditionally continental power to an increasingly amphibious one, creating a moment where each side’s vulnerabilities, ambitions, and competing strategic narratives directly shape the other’s choices. In this environment, misaligned assessments can create real risks of miscalculation. The purpose of this paper is to situate China’s behavior within its geographic and historical compulsions so that the United States can better interpret this moment of risk and opportunity.

¹ White House, *Indo-Pacific Strategy of the United States* (Washington, D.C.: The White House, February 2022), <https://bidenwhitehouse.archives.gov/wp-content/uploads/2022/02/U.S.-Indo-Pacific-Strategy.pdf>.

² White House, *National Security Strategy* (Washington, D.C.: The White House, October 2022), <https://bidenwhitehouse.archives.gov/wp-content/uploads/2022/10/Biden-Harris-Administrations-National-Security-Strategy-10.2022.pdf>.

³ Office of the Director of National Intelligence, *Annual Threat Assessment of the U.S. Intelligence Community, February 6, 2023* (Washington, D.C.: ODNI, 2023), <https://www.dni.gov/files/ODNI/documents/assessments/ATA-2023-Unclassified-Report.pdf>.



Understanding how Washington arrived at this new assessment of China is the starting point for grasping the stakes of the current moment. This consensus on China's ambitions—that the PRC has the capability to create its own regional sphere of influence, secure its growing international interests, and challenge the status quo global norms—is relatively new. Though there have long been voices warning of China's rise and its intent to challenge or overturn the international system, post-Cold War U.S. attention toward China often centered on economic and political dynamics. The expectation was that integrating China into the global economy would lead to political liberalization, and even if that were only moderate, China's rise could be managed such that Beijing would be a "responsible stakeholder" rather than a strategic competitor.⁴

The U.S. strategic shift in perception toward China has coincided with a renewed focus on peer competition ("Great power conflict"), and away from several decades of hyper-focus on counterterrorism and the occasional rogue nation.⁵ It is not surprising, then, that assessments of China are often hyperbolic—China is either the single biggest threat to the international system, or it is an unbloodied upstart without any real-world military experience.⁶ This ten foot tall versus paper tiger characterization (something seen at various times when assessing the evolving Soviet threat during the Cold War) can lead to disjointed policy and actions that may run at cross purposes to national interests and intent.

If the U.S. operates under the assumption that China is "ten feet tall," for example, it might assume an escalatory posture around Taiwan, or it might take actions that accelerate Chinese nationalism and reinforce Beijing's belief that Washington seeks containment. Overestimation narrows diplomatic off-ramps and drives U.S. commitments in the Indo-Pacific beyond what is strategically or fiscally sustainable. Inflating China's strength risks overextension and heightens the chances of confrontation.

On the other hand, underestimating China can lead the U.S. to respond too slowly to coercive moves, misread Beijing's risk tolerance, and assume deterrence will hold when it may not. It can weaken allied confidence, leave critical vulnerabilities unaddressed, and allow China to shift facts on the ground in places like Taiwan and the South China Sea.

⁴ Robert B. Zoellick, Deputy Secretary of State, "Remarks to National Committee on U.S.–China Relations," New York City, September 21, 2005, U.S. Department of State, <https://2001-2009.state.gov/s/d/former/zoellick/rem/53682.htm>.

⁵ See for example Congressional Research Service, *Renewed Great Power Competition: Implications for Defense—Issues for Congress* (Updated March 10, 2022), https://www.congress.gov/crs_external_products/R/PDF/R43838/R43838.91.pdf; and Ionut Popescu, *No Peer Rivals: American Grand Strategy in the Era of Great Power Competition* (Ann Arbor: University of Michigan Press, 2025), pp. 87-110, <https://www.jstor.org/stable/10.3998/mpub.12393858.8>.

⁶ For example, compare Robert Spalding, *War Without Rules: China's Playbook for Global Domination* (New York: Penguin, 2022); Timothy R. Heath, *The Chinese Military's Doubtful Combat Readiness: The People's Liberation Army Remains Focused on Upholding Chinese Communist Party Rule, Not Preparing for War*, RAND Corporation, PEA-830-1 (January 2025), https://www.rand.org/content/dam/rand/pubs/perspectives/PEA800/PEA830-1/RAND_PEA830-1.pdf; Kurt M. Campbell and Rush Doshi, "Underestimating China: Why America Needs a New Strategy of Allied Scale to Offset Beijing's Enduring Advantages," *Foreign Affairs*, Vol. 104, No. 3 (April 10, 2025), <https://www.foreignaffairs.com/china/underestimating-china>; and Michael D. Swaine, *Threat Inflation and the Chinese Military*, Quincy Institute for Responsible Statecraft, *Quincy Paper* No. 7, June 2022, <https://quincyinst.s3.amazonaws.com/wp-content/uploads/2022/06/17214428/QUINCY-PAPER-NO.-7-%E2%80%9494-SWAIN-%E2%80%94JUNE-2022.pdf>.

Downplaying China's capabilities risks complacency and creates openings that China can exploit.

One way to avoid these pitfalls is to look at China holistically: building a framing geopolitical assessment that understands and places China within the context of both time and space, and that seeks to identify the strengths and weaknesses, the constraints and compulsions, that shape modern and future Chinese behavior. This analysis offers policymakers a clear framework for identifying where and how China is likely to act, where it is vulnerable, and how U.S. strategy can deter conflict without accelerating it. Here it is important to note that seeking to understand the "other" is not the same as justifying or supporting behavior; too often those who try to explain the views or perceptions of an opponent are accused of condoning or excusing the opponent's behaviors.⁷

China in Geographic Space⁸

The insecurities driving China's contemporary ambitions and its shift toward maritime power begin with geography. A cursory look at China on a map or globe shows a country roughly the same size as the United States. Yet unlike the United States, China does not dominate a continent. Rather, it sits at the eastern edge of Eurasia, surrounded on land by 14 neighbors (North Korea, Russia, Mongolia, Kazakhstan, Kyrgyzstan, Tajikistan, Afghanistan, Pakistan, India, Nepal, Bhutan, Myanmar, Laos, and Vietnam), with enclosed seas surrounded by a double arc of nations stretching through the Korean Peninsula, Japan, and then again through the Philippine Archipelago, Borneo, the Malay Peninsula, and Vietnam, with Taiwan as the point of intersection between the two arcs. Thus Taiwan, strategically, is the critical point in any containment of China, and in any Chinese strategy to break out of its enclosed seas.

Layering population density on the map, it becomes clear that the nearly 90 percent of the Chinese population lives in the eastern half of the country, primarily concentrated in the northeastern plains along the Yellow River and the lower reaches of the Yangtze River. This is the core of China, the heartland of the Han, a conic section with its point near Xian, and the two ends of the arc around Beijing and Shanghai. The Great Wall roughly marks the northern extent of the 15-inch isohyet, a rainfall line that has long constrained China's ability to significantly populate its vast western half.⁹ In following a climactic line, the Great Wall effectively marked the traditional separation between sedentary agriculture to the south and

⁷ Rodger Baker, "Geopolitics and the Pitfalls of Provocation," *Stratfor Worldview*, October 20, 2015, <https://worldview.stratfor.com/article/geopolitics-and-pitfalls-provocation>.

⁸ See Rodger Baker, "Revisiting the Geopolitics of China," *Stratfor Worldview*, March 15, 2016, <https://worldview.stratfor.com/article/revisiting-geopolitics-china>; and Stratfor, *The Geopolitics of China* (Austin, TX: Stratfor, 2017), <https://www.stratfor.com/sites/default/files/geopolitics-of-china-stratfor-report.pdf>.

⁹ Jia Xiao, "Calculating the Hu Huanyong Line," *Annals of the American Association of Geographers*, August 6, 2025, <https://doi.org/10.1080/24694452.2025.2534549>.

nomadic herdsmen to the north.¹⁰ For centuries, these geographic realities have caused China to think like a continental power, forced to defend a densely populated, economically vital core.

This core is surrounded by a series of buffer spaces. To the north are the mountains of Manchuria and the desert steppe of Inner Mongolia. To the west are the vast desert plains of Xinjiang, the Tianshan Mountains, and the high Tibetan Plateau abutting the Himalayas. To the south are numerous mountains that gave rise to many different ethnic groups; these groups often cross China's current southern borders with Myanmar, Laos, and Vietnam. This peripheral ring around the Chinese core traditionally served as buffer space, a series of geographic barriers that could slow invasion and insulate the core from outside power and influence. Historical Chinese empires expanded and contracted, but at their peak their borders often resembled those of modern China. Rarely did China seek conquest beyond its geographic constraints, and when it did, it was usually driven by external powers, not those deriving from the Han core. While this has been a key dynamic shaping Chinese strategic culture over the centuries, as we will see, modern economic patterns are drawing Beijing to break from these historical patterns, even if slowly.

Despite its long eastern coastline, China has traditionally acted as a continental power. The early sedentary agricultural societies along the Yellow River faced threats from nomads to the north and west, as well as incursions by raiders from the sea—all while dealing with significant internal differences and competition. Successive Chinese dynasties dealt with these threats by expanding outward to secure and occupy the geographic buffer spaces around the core, but on the coast they more often moved population and trade inland rather than expanding outward into the maritime domain (though local maritime trade remained important, particularly in Southern China).¹¹ In effect, the sea was seen as a buffer itself, not as a primary route for connectivity and trade. China's tributary system also reflected this orientation: influence was projected through cultural and economic ties rather than through naval power. China's geography did not dictate these pathways, but it set the constraints that repeatedly pushed Chinese leaders toward a continental mindset—a mindset that continues to shape Beijing's behavior today.

China in Time¹²

The rhythm of China's historical dynastic cycles deepened its continental orientation, repeatedly teaching Chinese leaders that security depended on consolidating the core,

¹⁰ Temur Temule, "The Great Wall as Perilous Frontier for the Mongols in 16th Century: Reconsidering Nomadic-Sedentary Relations in Premodern Inner Asia," *International Journal of Korean History* Vol. 21, No. 1 (2016): pp. 121–55, <https://doi.org/10.22372/ijkh.2016.21.1.121>.

¹¹ Robert J. Antony, *The Golden Age of Piracy in China, 1520–1810: A Short History with Documents* (Lanham, MD: Rowman & Littlefield, 2022).

¹² The idea of dynastic cycles is common, but the exact form and cause see many variations. See for example Heng-fu Zou, "Chinese Dynastic Cycles of Corruption and Power," CEMA Working Paper 747, China Economics and Management Academy, Central University of Finance and Economics, 2025; Kenneth S. Chan and Jean-Pierre Laffargue, "A Dynamic

internal cohesion, and control of the periphery—not projecting power at sea. These dynastic cycles can be simplified into a four-phase pattern:

- The cycle is kicked off by the consolidation of power, usually from the Han core, but not always—two significant outside powers, the Mongols and the Manchu, established the Yuan dynasty (1279-1368) and the Qing dynasty (1644-1912) respectively.
- This is followed by an expansionist phase, seizing or influencing the buffer space around the core, expanding suzerainty relationships, and securing control over key trade routes.
- This expanded empire requires an expanded bureaucracy, but the bureaucracy over time becomes its own center of power—or, more often, several competing centers—as the political core grows decadent. Focus amplifies on resolving fragmentation and quelling internal rebellion.
- Finally, following an escalating pattern of internal and external economic, social, and political pressure, a shock finally shatters the cohesion of the aging and already fragile empire. Out of these ashes, another power emerges to begin the consolidation phase once again.

The persistent need to reassert internal cohesion and control land borders meant that Chinese dynasties rarely enjoyed the stability or strategic slack required to sustain maritime ambitions, reinforcing a continental mindset over centuries. As we will see, Chinese President Xi Jinping is well aware of these patterns, and has sought to pre-empt the cycle, while simultaneously refocusing China's orientation from Continentalism to a hybrid Amphibious posture.

China's dynastic history is long and varied, but for our purposes, we will focus on just a few key moments—ones that help define the extent of continentalist expansion, and ones where there were early moves to engage in maritime expansion. It was during the Tang Dynasty (618-906) that China firmly ensconced itself as a sprawling empire, enhanced its periphery, established suzerainty with several of its neighbors, and began a broad-based program of sending and receiving diplomatic and trade delegations across Asia.¹³ Yet even during this moment of expanded engagement, China focused primarily on land routes and ties, rather than taking to the seas, further enhancing the continental focus of China's evolving strategic culture.

Model of Taxation, Corruption, and Public Investment in the Dynastic Cycle: The Case of Imperial China," *Macroeconomic Dynamics* Vol. 20, No. 8 (December 2016): pp. 2123–47, <https://doi.org/10.1017/S1365100515000218>; Robert Hartwell, "Famine, Revolt, and the Dynastic Cycle: Population Dynamics in Historic China," *Research in Economic History* 7 (1994): pp. 351–78; Qiang Chen, "Climate Shocks, Dynastic Cycles and Nomadic Conquests: Evidence from Historical China," *Oxford Economic Papers* Vol. 67, No. 2 (April 2015): pp. 185–204, <https://doi.org/10.1093/oep/gpu032>; and Sabin Roman, "Historical Dynamics of the Chinese Dynasties," *Royal Society Open Science* Vol. 7, No. 6 (June 2021): p. e07293, <https://doi.org/10.1098/rsos.07293>. Here the author uses a simplified four-step cycle focused on very broad macro-economic dynamics related to political concentration or decentralization of power.

¹³ Mark Edward Lewis, *China's Cosmopolitan Empire: The Tang Dynasty* (Cambridge, MA: Harvard University Press, Belknap Press, 2009), p. 368, <https://www.jstor.org/stable/j.ctvjnrtgk>.

This choice reflected two structural issues facing Chinese leaders. First, the expanded empire was a hodgepodge of different ethnic and linguistic groups that required constant intervention and active management—all while addressing periodic threats and pressure from outside the imperial borders. Second, although the Chinese state engaged in regional and international trade, the vast Chinese empire largely made external trade redundant—for the most part, China could produce what it consumed and consume what it produced. Although some coastal regions of China were heavily engaged in localized maritime trade, for the central Chinese leadership maritime trade and engagement was a distraction rather than a necessity.¹⁴ Even into the era of European colonialism, China had minimal compulsion to engage in international trade by sea, aside from tribute and luxury goods, including spices. For example, the Opium Wars were triggered in part by the British Empire trying to find a way to force Chinese consumption and reshape the balance of trade; China was taking British silver as payment, but not rebuying equivalent British goods. China simply didn't need (or the average Chinese couldn't afford) European imports and wasn't reliant on exports to Europe. Thus, unlike Europe, China's own internal economic realities reduced the drivers for maritime expansion and adventurism, leaving China vulnerable to the age of colonialism.

Chinese empires embarked on broad-based maritime engagement only twice, and both cases were met with disaster, setting the precedent for viewing the sea as a source of risk rather than opportunity. Both instances also reflected the influence of Southern China over Northern China. The first effort was made by the Southern Song dynasty (1127-1279), which held out longer against the invading Mongols than Northern Song due in part to its relatively large riverine and coastal defense navy.¹⁵ Once the Mongols overran both Southern Song and Korea, they took advantage of the shipbuilding capabilities and maritime heritage of both to launch their ultimately unsuccessful invasions of Japan, before effectively retiring maritime operations and refocusing on internal land-based challenges.

During the early Ming dynasty (1368-1644), which emerged from the southern capital at Nanjing, Chinese Muslim admiral Zheng He led several voyages around Asia and Africa.¹⁶ These so-called treasure fleets held significant potential for catalyzing further maritime operations and expansion by China, and they occurred at a time when—had China sustained maritime activity—would have put it in direct competition (and potentially conflict) with early European maritime expansion. But these voyages were used more as a show of political power than expansion. Treasure fleets, as their name suggests, were known for demanding gifts for the empire rather than establishing or securing trading routes or driving a policy of colonization. And when the capital moved back north to Beijing, and internal social and economic troubles wracked the empire, the fleet was disbanded and disassembled. Once

¹⁴ Hugh R. Clark, "Frontier Discourse and China's Maritime Frontier: China's Frontiers and the Encounter with the Sea through Early Imperial History," *Journal of World History* Vol. 20, No. 1 (March 2009): pp. 1-33, <https://www.jstor.org/stable/40542719>.

¹⁵ Jung-Pang Lo, "The Emergence of China as a Sea Power During the Late Sung and Early Yuan Periods," *The Far Eastern Quarterly* Vol. 14, No. 4 (August 1955): pp. 489-503, <http://www.jstor.org/stable/2941832>.

¹⁶ Chin-keong Ng, "Managing Maritime Affairs in Late-Ming Times," in *Boundaries and Beyond: China's Maritime Southeast in Late Imperial Times* (Singapore: NUS Press, 2017), <https://www.jstor.org/stable/j.ctv3wdbw4.14>.

again, internal fragmentation demanded that China focus its energy inside the existing border to maintain social cohesion. China's continentalist mindset was reinforced just when it may have finally fallen away.

The Lingering Continentalist Mindset

This quick look at Chinese geography and history highlights a key element of China's long-term evolution, which colors its geopolitical perceptions and strategic culture today. China has, for most of its history, acted as a traditional continental power. Its perception of threat focused on the land, its grand strategy was shaped around finding geographic barriers and gaining strategic depth to insulate the Han core.

Threats from the sea were largely nuisance, rather than existential. Coastal piracy impacted local villages and some intra-China coastal trade, but these could be dealt with by burning coastal villages and moving the population inland to starve the raiders, or by dredging the Grand Canal to keep waterborne trade inland.¹⁷ The sea was simply not a major threat vector and thus could be seen as another geographic buffer. Even Japan's failed attempt to invade China in the late 1500s stalled in Korea and was repelled by a combination of Chinese land forces and Korean maritime forces. In short, until China was "forced" into "unequal treaties" with the Europeans, the sea presented little threat and little incentive to China's leaders.¹⁸

Modern China largely retained the continental focus. While the Qing did try to modernize (read Westernize) its military in the late 1800s, and built up a naval fleet with German weaponry, the first Sino-Japanese war showed how poorly the Chinese had adapted to naval warfare.¹⁹ This followed China's loss of its northern maritime territories to Russia in the 1850s and 60s (which is why today North Korea and Russia meet at a sea border, boxing China out of direct access to the North Pacific), and its loss of sovereignty over key southern Chinese ports.

After decades of European and Japanese assertions of spheres of influence in China, domestic economic troubles, and a failing bureaucracy, the Chinese empire was overthrown in the 1911 revolution led by Sun Yat Sen. By then the damage was done, and the new Republic of China proved incapable of defending Chinese territory against Imperial Japan. Today, this period of Qing decline is called the Century of Humiliation and weighs heavily on

¹⁷ Sui-wai Cheung, "Construction of the Grand Canal and Improvement in Transportation in Late Imperial China," *Asian Social Science* Vol. 4, No. 6 (June 2008): pp. 11–22, <https://pdfs.semanticscholar.org/d921/54b84c7cb4b1b9ee75ad327269bb458d28b7.pdf>.

¹⁸ Charlotte Ku, "Abolition of China's Unequal Treaties and the Search for Regional Stability in Asia, 1919–1943," *Chinese (Taiwan) Yearbook of International Law and Affairs* 12 (1994): pp. 67–86, <https://scholarship.law.tamu.edu/facscholar/413>.

¹⁹ Benjamin A. Elman, "Naval Warfare and the Refraction of China's Self-Strengthening Reforms into Scientific and Technological Failure, 1865–1895," *Modern Asian Studies* Vol. 38, No. 2 (May 2004): pp. 283–326, <https://www.jstor.org/stable/3876516>.

Beijing's perceptions of vulnerability to external powers.²⁰ This memory reinforces the core theme of China's strategic history: when China loses internal cohesion or control of its periphery, foreign powers can penetrate its borders and dictate outcomes. Xi Jinping's project of "national rejuvenation" is an attempt to ensure the "Century of Humiliation" never happens again, that the vulnerabilities which allowed foreign powers to dominate Chinese territory have been vanquished. This conviction now underpins Beijing's efforts to shape the regional balance and redefine great-power competition.

Further emphasizing its continentalist roots, the Chinese Communist revolution, like many revolts of the past, came from the Chinese interior, not the coastal regions. The rise of the Chinese Communists in the 1930s and 40s contrasted with the attempt by the Nanjing-based Nationalist government to build out a maritime capability to address China's weakness in the modern maritime age.²¹ Both the Communists and Nationalists focused their efforts against Japan, but soon this alliance of convenience broke down, and the Communist forces drove the Nationalists out, the latter settling in Taiwan. Chinese forces delayed trying to conquer the Nationalist redoubt in Taiwan, instead securing Xinjiang in 1950 and Tibet in 1951. The outbreak of the Korean War focused Chinese efforts on the vulnerable land border, undermining plans for a final assault on the Nationalists in Taiwan. This sequence ensured that China's modern state was built on landward insecurities rather than maritime strength—and that the vulnerability of an independent or foreign-aligned Taiwan loomed in the future.

Politically and economically, China under Mao Zedong doubled down on its continentalist mindset.²² The Great Leap Forward was a failed attempt to ensure domestic self-sufficiency and insulate China from any international dependencies. The Cultural Revolution pitted competing factions within China against one another, fighting over influence and policy control. Even when Deng Xiaoping took control, launching China's "opening and reform" era, government and security forces' attention focused on internal ethnic and social challenges, or on issues around its land periphery (including a brief and largely unsuccessful conflict with Vietnam).²³ Deng's decision to open diplomatic relations with the United States was driven by mutual concerns over the Soviet Union. Beijing saw the USSR as a strategic challenger, a continental empire that challenged Chinese security. In this context, U.S. maritime power was less of a concern for Beijing than the menace of Soviet land power.

²⁰ Zheng Wang, "National Humiliation, History Education, and the Politics of Historical Memory: Patriotic Education Campaign in China," *International Studies Quarterly* Vol. 52, No. 4 (December 2008): pp. 783–806, <https://www.jstor.org/stable/29734264>.

²¹ Kuan-Jen Chen, "Finding a Local Partner in Post-war Maritime East Asia," in *Charting America's Cold War Waters in East Asia Sovereignty, Local Interests, and International Security* (Cambridge: Cambridge University Press, 2024).

²² Bernard Cole, "The History of the Twenty-first Century Chinese Navy," *Naval War College Review*. Vol. 67, No. 3, Article 5 (Summer 2014), <https://digital-commons.usnwc.edu/nwc-review/vol67/iss3/5>.

²³ Xiaoming Zhang, "China's 1979 War with Vietnam: A Reassessment," *The China Quarterly*, No. 184 (December 2005): pp. 851–74, <https://www.jstor.org/stable/20192542>.

Under both Mao and Deng, the People's Liberation Army, which answers to the Party and not the state, was dominated by large-scale land forces, with little if any attention paid to maritime forces aside from nearshore defense. China, like the Soviet Union, considered its population a nearly unlimited military resource, focusing less on modernized weapons systems than large-scale defensive capabilities through massed forces. China also used its military forces for internal security, only recently restructuring to focus the PLA outward and shifting most internal threat management to the People's Armed Police (PAP). Even in the nuclear age, China initially built little more than a minimal deterrent and put few resources into strategic air or maritime assets. The old strategy of insulating and isolating the Chinese core from outside threats remained the primary driver of strategic policy.

China's Maritime Awakening

Today, the People's Liberation Army Navy (PLAN) has more ships than the U.S. Navy, and these ships are concentrated in a regional rather than global role.²⁴ China's commercial port development, infrastructure, and management stretches around the globe. China's first formal overseas base in Djibouti is firmly established, and Beijing appears to be capable of quickly adding another in Cambodia, Pakistan, or even Nicaragua. Chinese submarines sail the world's oceans, its research vessels regularly traverse the polar regions and map the deep seabed, and the PLAN has taken part in (and led) multilateral counter-piracy operations in the Gulf of Aden.²⁵ China's naval buildup is matched in pace and scope only by its more recent nuclear breakout. Less than a quarter century ago it was the norm to scoff at Chinese naval pretensions. Today the Chinese Navy is seen as the pacing challenge for the U.S. military. None of this seems to fit with China's long history of continentalism. So what happened?

China's turn to the maritime space came swiftly, driven by a convergence of compulsions and capabilities. On the compulsion side, China's rapid economic rise brought with it a fundamental change in dependency on maritime trade. In the decade and a half after China's entry into the World Trade Organization in 2001, China's economic miracle brought with it a massive seaborne dependence on imports—of raw materials and technology—and on the exports of finished goods.²⁶ Internal or external problems could no longer be dealt with through isolation, because China could no longer afford to break off access to foreign markets and resources.

²⁴ Stephen Biddle and Eric Labs, "Does America Face a 'Ship Gap' With China?" *Foreign Affairs*, March 19, 2025, <https://www.foreignaffairs.com/united-states/does-america-face-ship-gap-china>.

²⁵ Andrew S. Erickson and Justin D. Mikolay, "Welcome China to the Fight Against Pirates," *Proceedings*, March 2009, https://www.andrewerickson.com/wp-content/uploads/2010/11/China-Anti-Piracy_Proceedings_2009-March.pdf.

²⁶ Anas Rakha and Khadiga El-Aasar, "The Impact of the Belt and Road Initiative on the Suez Canal Cargo Trade," *Journal of Shipping and Trade* Vol. 9, No. 9 (2024), <https://doi.org/10.1186/s41072-024-00167-y>.

As with most countries, China's trade is dependent upon maritime routes—and the United States remains the predominant global naval power. The seas remain open because the United States maintains freedom of navigation and trade as a critical mission for its navy.²⁷ Most countries accept this U.S. role, rather than challenging it. But for China, rising tensions with the United States meant that Beijing started to rethink its effective dependency upon the goodwill of the United States to secure its own economic future. Looking seaward, China saw U.S. treaty allies in South Korea, Japan, and the Philippines, close security relations between Washington and Singapore, and increasing cooperation between the United States and Indonesia and Malaysia, all while Washington was restoring ties with Hanoi and discussing potential defense cooperation. Add in Washington's longstanding military equipment support to Taiwan and, from Beijing's perspective, China's maritime frontier was enclosed by the U.S. security architecture, leaving Chinese trade at the mercy of U.S. largess.

Facing this dynamic, China's leadership saw three basic choices. First, they could simply assume that the United States had little interest in interfering with Chinese trade and do nothing. Second, they could seek alternative (though more costly and less efficient) routes via land to bypass maritime chokepoints like the Strait of Malacca.²⁸ Third, they could develop a robust naval force that would allow China to protect its supply lines not only in its near seas, but in far-sea operations around the globe. Ultimately Beijing chose a combination of the latter two options—and in doing so reinvigorated the strategic need to finally resolve “the Taiwan problem.” As it had been for centuries, protecting itself against vulnerabilities catalyzed Chinese strategic action—this time, though, those priorities demanded a maritime presence.

Under Jiang Zemin (1989 - 2003), China had begun a series of military reforms and modernization efforts, taking business operations away from the military and, in return, refocusing and modernizing the force.²⁹ Jiang also began the process of shifting away from the traditional manpower-heavy technology-light military to one that embraced modern technology (and thus required changes in military education, training, and recruitment) and a reduction in total troop numbers.

In the maritime space, China began building out its navy and took an early turn at occupying and building out reefs in the South China Sea to assert its territorial claims. This came in the context of the 1982 United Nations Convention on the Law of the Sea (UNCLOS), which wasn't ratified and implemented until 1994. The Convention clarified a 200 nautical mile exclusive economic zone for countries and sought to address increasing maritime clashes over fishing rights.³⁰ In doing so, the treaty compelled countries to define their

²⁷ Jonathan Masters, “Sea Power: The U.S. Navy and Foreign Policy,” *Council on Foreign Relations*, updated June 12, 2024, <https://www.cfr.org/background/sea-power-us-navy-and-foreign-policy>.

²⁸ East-West Center, “Belt and Road Initiative: What's in It for China,” *East-West Wire*, <https://www.eastwestcenter.org/news/east-west-wire/belt-and-road-initiative-what%E2%80%99s-in-it-china>.

²⁹ Andrew Scobell, *Chinese Army Building in the Era of Jiang Zemin* (Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, 2000), <https://press.armywarcollege.edu/monographs/133>.

³⁰ United Nations, *United Nations Convention on the Law of the Sea*, 1982, https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf.

claims; in the South China Sea, this led to numerous overlapping and competing claims, removing any neutral space. By occupying and building up reefs (some of which were considered only low water elevations), Beijing was, in effect, expanding the maritime territory it could claim as its own. China was thus increasing its buffer space and its access to maritime resources while simultaneously pushing back against the maritime territory of regional U.S. allies and partners.³¹ It was also laying the groundwork to position forces around Taiwan and to interdict foreign support for the island.

In the late 1990s and into the first few years of the 2000s, this initial Chinese reef building operation triggered competition with the Philippines and Vietnam. The former, a U.S. treaty ally, sought a clear U.S. position and action to defend its territorial claims.³² Rather than take direct action, however, the United States took a nominally neutral position on maritime territorial disputes (something that applied not only to Philippine-Chinese disputes, but China's disputes with Japan and South Korea, and those between allies South Korea and Japan). China's perceived aggressiveness did shape the early plans of the George W. Bush administration, which came into office with the intent to push back against Chinese economic and maritime gains.³³ The first major crisis of the Bush administration was the EP-3 incident in April 2001, which showcased a more confident China and a still somewhat cautious U.S.³⁴

Ultimately, a more active showdown between Washington and Beijing was sidelined following the September 11 al Qaeda attacks on the United States. Washington quickly shifted attention to Afghanistan and later Iraq, and the military focused on counterterrorism and counter-insurgency, rather than traditional great power conflict. China, which had been facing serious social and economic challenges at home, largely abandoned its initial island building projects (some of which quickly eroded back into the sea), and refocused its attention internally.³⁵

At this point, Chinese capability had not yet reached a point where it was able to directly address the newfound compulsion of maritime security while simultaneously maintaining social cohesion on the continent. Instead of looking to the seas, Beijing sought to secure secondary alternative routes to bypass the Strait of Malacca, signing on to the Gwadar port project in 2001—a maritime-access project intended to create a land-based alternative—and, later, the Myanmar-China natural gas pipeline in 2009 under then Chinese President Hu

³¹ Michael Paul, *A "Great Wall of Sand" in the South China Sea? Political, Legal and Military Aspects of the Island Dispute*, SWP Research Paper 8 (Berlin: Stiftung Wissenschaft und Politik, July 2016), https://www.swp-berlin.org/publications/products/research_papers/2016RP08_pau.pdf.

³² Shee Poon Kim, "The South China Sea in China's Strategic Thinking," *Contemporary Southeast Asia* Vol. 19, No. 4 (March 1998): 369–87, <http://www.jstor.org/stable/25798398>.

³³ Jim Vandehei, "Bush Signals Hard Line To China's Vice Premier," *The Wall Street Journal*, March 23, 2001, <https://www.wsj.com/articles/SB985240065134087952>.

³⁴ Shirley A. Kan, et al, *China-U.S. Aircraft Collision Incident of April 2001: Assessments and Policy Implications*, CRS Report No. RL30946 (Washington, D.C.: Congressional Research Service, 2010), <https://www.congress.gov/crs-product/RL30946>.

³⁵ Kei Koga, "Four Phases of South China Sea Disputes 1990–2020," in *Managing Great Power Politics: ASEAN, Institutional Strategy, and the South China Sea* (Singapore: Palgrave Macmillan, 2022) https://link.springer.com/chapter/10.1007/978-981-19-2611-2_3.

Jintao. Beijing also sought to entice through economic access key regional U.S. partners, including South Korea, Japan, Australia, and the Philippines to counterbalance U.S. pressure and weaken incentives for countries to strengthen and arm Taiwan.

In the background, however, China was taking steps to beef up its military capabilities. Under Hu, the military reform efforts that began under Jiang took on a new focus on maritime operations.³⁶ China's rapid shipbuilding program expanded, the country sent the first of many naval escort task forces (NETF) to the Gulf of Aden in 2008, and the PLAN began restructuring its naval training and interoperability between its three fleets. The anti-piracy operations in the Gulf of Aden were used by China to speed learning of naval operations and best practices from other countries, as well as to test different combinations of ships and replenishment vessels—a lesson that was rapidly translated into China's naval construction programs. This was a period both of rapid naval expansion in numbers and of real-world training and operations for the PLAN. In 2002 China received delivery of the old Soviet-era *Varyag*, and by the early 2010s, it was refit, renamed *Liaoning*, and placed into active service as China's first aircraft carrier of the PLAN. At the time, it was seen as a wasteful move, but it pointed to a future expeditionary orientation for the PLAN, well beyond its traditional coastal or emerging regional defense.

Building on the work of Hu, Xi Jinping (2012 - present) took an even more aggressive stance toward China's naval ambitions. Under Xi, the PLAN commissioned China's first fully indigenous aircraft carrier, the *Shandong*, in 2019, and the second domestic carrier, the *Fujian*, began final sea trials in 2024, with several other aircraft carriers under construction.³⁷ China reinvigorated its island building campaign in the South China Sea and took advantage of the U.S. policy of neutrality in maritime territorial disputes, as well as the political shift in the Philippines under Rodrigo Duterte. In 2017, China formally opened its first overseas base in Djibouti.³⁸ The PLAN and PLAAF expanded military exercises and training with Russia, including air patrols over the North Pacific, intentionally overflying the disputed Dokdo/Takeshima islands between South Korea and Japan and, more recently, the U.S. Air Defense Identification Zone (ADIZ) near Alaska.³⁹ China also began trilateral maritime exercises with Russia and Iran. Under Xi, China has shown both the compulsion and—finally—the *capacity* to rapidly expand its maritime capabilities, supplementing these with a buildup of its air forces (including strategic bombers) and nuclear forces.

³⁶ Howard Wang, "Toward a Sea-Power Strategy—Chinese Communist Party Debates and Consensus Building under Jiang Zemin, Hu Jintao, and Xi Jinping," *Naval War College Review*, Vol. 77, No. 3 (Summer/Autumn 2024), <https://digital-commons.usnwc.edu/nwc-review/vol77/iss3/5>.

³⁷ ChinaPower Team, "What Do We Know (So Far) about China's Second Aircraft Carrier?," *ChinaPower* (Center for Strategic and International Studies), December 17, 2017, updated June 15, 2021, <https://chinapower.csis.org/china-aircraft-carrier-type-001a/>.

³⁸ Joel Wuthnow, "The PLA Beyond Asia: China's Growing Military Presence in the Red Sea Region," *Strategic Forums* No. 8 (2020), National Defense University Press, <https://digitalcommons.ndu.edu/strategic-forums/8>.

³⁹ Dzirhan Mahadzir, "UPDATED: Joint Russian, Chinese Pacific Bomber Flight Prompts Japan and South Korea to Scramble Fighters," *USNI News*, November 29, 2024, <https://news.usni.org/2024/11/29/joint-russian-chinese-pacific-bomber-flight-prompts-japan-and-south-korea-to-scramble-fighters>.

In parallel to the military buildup, China accelerated its land-route projects, now under the renamed Belt and Road Initiative. The BRI seeks to build a network of east-west and north-south corridors throughout Eurasia, allowing the rapid reconfiguring of supply lines in time of war, natural disasters, or political challenges. It also ties together China's expanding overseas port management and infrastructure—in some ways a reverse engineering of the old routes of the British Empire. The BRI is perhaps also a partial fulfillment of Halford Mackinder's concern about a unified "World Island" of Eurasia and Africa tied together by rail and roads, linking the resource base and human capital of this vast space under a centrally controlling interest.⁴⁰ An added component is China's expanded interest in the polar regions, including the use of Russia's Northern Sea Route, Coast Guard agreements for Chinese operations in the Russian Arctic, and expansions of China's Antarctic and near-Antarctic infrastructure.⁴¹

An Amphibious China

Despite China's rapid and wide-scale expansion of maritime military capabilities, Beijing remains trapped between its two identities—as a traditional continental land power, and as a burgeoning maritime power. Few countries have proven adept at balancing these two very different modes of power. The United States, after conquering a continent and effectively neutralizing any significant threats from its two land borders, was able to pour the resources of that continent into an expeditionary maritime power base. But Germany failed to do so twice (during the two World Wars), and neither the Soviet Union nor Russia before it ever really overcame its land challenges to develop a robust naval power. As Alfred Thayer Mahan had pointed out when comparing British and French power, amphibious nations have a tough time overcoming their continental vulnerabilities.⁴²

China still faces many geographical challenges along its long land borders, forcing Beijing to split its priorities. To remain secure, the Chinese leadership must ensure that unstable areas like Afghanistan (and increasingly Pakistan) do not interrupt or interfere with the flow of goods and services across Eurasia. Beijing's growing presence in Central Asia is always with a cautious eye on Russia, which sees these states as buffers to its own core. China's growing economic dependencies on Eurasia and Africa—for resources, for markets, and for alternative transit routes—create new vulnerabilities for Beijing to manage, particularly as the leadership remains reticent to employ active military force abroad. Instability in Baluchistan continues to dog CPEC development, yet Beijing refrains from active

⁴⁰ Halford J. Mackinder, *Democratic Ideals and Reality: A Study in the Politics of Reconstruction* (New York: Henry Holt and Company, 1919).

⁴¹ Thomas Nilsen, "Russia's Coast Guard Cooperation with China Is a Big Step, Arctic Security Expert Says," *The Barents Observer*, April 28, 2023, <https://thebarentsobserver.com/en/security/russias-coast-guard-cooperation-with-china-is-a-big-step-arctic-security-expert-says/164360>.

⁴² Alfred Thayer Mahan, *The Influence of Sea Power upon History, 1660–1783* (Boston: Little, Brown and Company, 1890). A later exploration of the challenges of France's "amphibious geography" can be found in Walter L. Dorn, *Competition for Empire, 1740–1763* (New York: Harper & Brothers, 1940).

intervention. In Myanmar, Beijing has signed agreements with ethnic rebel groups to manage border trade, in parallel to expanding military aid and assistance to the military government, thus choosing not to intervene in a decisive manner.⁴³

In the maritime space, China's actions to assert its influence and buffer space continue to trigger counteractions by both regional and extra regional countries. China is changing the balance of power in the Indo-Pacific, and as such is drawing responses not only from the United States, but from Japan, Australia, and European nations—in addition to the regional countries upon whose territory China encroaches. Fear of China pursuing Mackinder's World Island, and ripples of Nicholas Spykman's 1944 warning that "dominant power in the Far East will undoubtedly be China, providing she achieves real unification and provided that Japan's military power is completely destroyed" shape the subconscious of those watching China's "rise."⁴⁴ Any perception of the change in balance of power, whether militarily, economically, or politically, is seen as an erosion of U.S. (and North Atlantic) supremacy and security.

At the center of Beijing's effort is Taiwan. If Taiwan is formally independent or serves as a forward base of operations for foreign powers, the island can serve to cut the Chinese coastline in half, to interdict and control Chinese maritime access. Should China reclaim Taiwan, it could dictate the maritime trade that transits the South and East China Seas, effectively controlling the economic fate of South Korea and Japan and pushing the United States back to the eastern Pacific.⁴⁵ China's attention on the Philippines, seen as the politically and economically weak link in the regional U.S. security architecture, showcases Beijing's attempts to coerce regional players to abandon Washington and accept Chinese regional hegemony. It also showcases Beijing's ongoing strategy to reshape the relative power balance in the region, and ultimately to convince Taiwan's leadership and population that the United States and its partners would be unwilling and unable to face off against Chinese regional power to rescue Taiwan. If China can make this case convincingly, it will never need to take on the costly and risky prospect of a Taiwan invasion.

But as China faces external challenges along its land and sea frontiers, it remains constrained by internal structural problems. China's rapid economic rise was shaped by the unspoken but commonly accepted promise to its people that everyone would get rich, though some faster than others. The hope of a brighter future served to tamp down instability in a country where there is no electoral outlet to relieve social frustrations. The problem is that Chinese economic growth was built on two ideological foundations: Mao's legacy of a dispersed economy to avoid any vulnerable center of gravity and Deng's idea of unrestricted growth. In practice, this meant that economic growth was not logical; there was no initial concentration of economic activity in regions matching their strengths. Instead,

⁴³ Bertil Lintner, "China and the Wars in Myanmar," *The Irrawaddy*, January 21, 2025, <https://www.irrawaddy.com/opinion/guest-column/china-and-the-wars-in-myanmar.html>.

⁴⁴ Nicholas John Spykman, *The Geography of the Peace* (New York: Harcourt, Brace and Company, 1944).

⁴⁵ Rodger Baker, "China's Evolving Taiwan Policy: Disrupt, Isolate and Constrain," *Stratfor Worldview*, June 11, 2020, <https://worldview.stratfor.com/article/chinas-evolving-taiwan-policy-disrupt-isolate-and-constrain>.

there were numerous duplicate efforts across the country, often leading to massive redundancies and internal competition that drained resources rather than promoting the survival of the fittest corporations.

As one example, Chinese steel production at times grew so fast that Chinese companies, uncoordinated and competing against one another, drove skyrocketing iron ore import prices and at the same time collapsed export steel prices. This destroyed any profit margins and often led to operating at a loss.⁴⁶ Rather than competition driving the uninventive and unsuccessful out of business, China's leaders sought to avoid social instability, and failing companies were kept alive to keep employment up. China's dual ideals meant that the deadwood just kept building up, and the larger the debts, the less likely Beijing was to allow companies to go under. By the time Xi took power, there was a general acceptance of the need to radically alter the system—something that seemed to require consolidation of power and a strongman leadership.

Today, China's leadership faces an aging population demanding a greater share of state resources. It faces an interior that never did grow at the rate of the coasts yet has now been told it must accept the entrenched wealth gap. It faces a housing crisis built on the backbone of national taxation policies, distrust in banks and the stock market, and local government drives for growth at all costs.⁴⁷ China faces the very real challenge of economic reform, compounded by the fear of social instability, all at a time when the United States, Europe, and others are growing wary of economic and political cooperation with Beijing. The consolidation of power under Xi also risks reviving the traditional factional system of Chinese politics, something that could further undermine central cohesion. In effect, Xi Jinping, who rose to power as a renewed centralizer, one who sought to rehabilitate the Party as the core of the nation and simultaneously reinvigorate a sense of broader Chinese nationalism, is growing less and less likely to avoid the stresses of the traditional pattern of Chinese dynastic collapse. Even as economic realities drive China's expansion of maritime operations to secure its far-flung economic vulnerabilities, these same forces drive instability at home, leaving Beijing facing the classic challenge of an amphibious, rather than truly maritime, power.

As an amphibious power, one undergoing a wrenching domestic economic transition, the challenges are myriad.⁴⁸ Beijing has found itself negotiating with the military junta and ethnic rebels in Myanmar's north to keep key trading routes open.⁴⁹ It is balancing the

⁴⁶ Alan H. Price, Christopher B. Weld, and Laura El-Sabaawi, *Government Intervention and Overcapacity: Causes and Consequences for the Global Steel Industry* (July 2013), prepared for the American Iron and Steel Institute and the Steel Manufacturers Association, <https://www.wiley.law/assets/htmldocuments/Government%20Intervention%20and%20Overcapacity%20Causes%20and%20Consequences%20for%20the%20Global%20Steel%20Industry.pdf>.

⁴⁷ Kenneth Rogoff and Yuanchen Yang, "China's Real Estate Challenge," *Finance & Development* (December 2024), <https://www.imf.org/en/Publications/fandd/issues/2024/12/chinas-real-estate-challenge-kenneth-rogoff>.

⁴⁸ Rodger Baker, "China's Amphibian Dilemma: Straddling Land and Sea Ambitions," *Stratfor Worldview*, September 7, 2020, <https://library.stratfor.com/article/china-s-amphibian-dilemma-straddling-land-and-sea-ambitions>.

⁴⁹ Bertil Lintner, "China and the Wars in Myanmar," *The Irrawaddy*, January 21, 2025, <https://www.irrawaddy.com/opinion/guest-column/china-and-the-wars-in-myanmar.html>.

political sensitivities of Islamabad with its own security needs in its Pakistan development and transport projects. Chinese counter-terrorism forces are taking a more active role in Tajikistan and other Central Asian neighbors to reduce spillover risks in Xinjiang and keep threats pushed even further back (increasing its traditional buffer space).⁵⁰ Beijing and Moscow are renegotiating Chinese access to the Russian Far East, something Moscow feels compelled to do amid international responses to the Ukraine war and despite longer-term national security concerns. China and India have come to blows over border disagreements several times in the past decade, and New Delhi has embarked on a large-scale counter-construction operation along the disputed frontier in response to Chinese infrastructure projects that reinforce Beijing's territorial claims and strengthen its hold.

At sea Beijing is facing a reinvigorated Japan, new bi- and mini-lateral agreements for joint maritime operations, renewed European naval presence, and a growing challenge to its expanding maritime relations from the Pacific Islands to Latin America. These are the challenges of an amphibious power; it has no real center of gravity for attention and forces—they are spread out on land and at sea and are increasingly reactive in their approach. Yet the Chinese forces remain constrained by Beijing's reticence to act like a traditional military power. If China pushes its claims in the South China Sea, Washington can enhance defense ties with India or Kazakhstan, reorienting Beijing's focus. If China presses on India, Washington can move forces south along Japan's Ryukyu Island chain, re-engage the Pacific Islands, or engage Australia in the development of nuclear-powered submarines. In short, the compulsions that have driven Beijing to pursue a parallel maritime strategy to its traditional continental orientation create numerous new vulnerabilities, stretching the country's ability to manage all these issues at once.

At the same time, China sees its window of opportunity with Taiwan closing. Each successive generation of Taiwanese is less connected politically, culturally, and historically to the Mainland.⁵¹ Taipei's political trajectory is moving steadily toward independence and away not only from unification, but even from the status quo. The United States and its partners are reengaging in the region, most notably in the case of Japan, which is working—both with the United States and on its own—to expand military cooperation arrangements and arms transfers. China's coercive maritime and air exercises around Taiwan are growing more frequent and more intense; as Beijing sees these tools losing their potency, Chinese leadership is being driven to ever bolder moves to try and reshape regional perceptions of Chinese strength and U.S. weakness. Long-touted assertions of a 2027 invasion plan are off the mark, largely because they came from external assertions of closing windows or key anniversaries, and not from any significant need for a move by a particular date, and they don't take into consideration changing global balances and events, or the lessons Beijing is

⁵⁰ Dante Schulz, "China Advances Security Apparatus in Tajikistan in the Aftermath of the Taliban Takeover," *Caspian Policy Center Research / Security & Politics Program*, November 5, 2021, <https://www.caspianpolicy.org/research/security-and-politics-program-spp/china-advances-security-apparatus-in-tajikistan-in-the-aftermath-of-the-taliban-takeover-13254>.

⁵¹ Election Study Center, National Chengchi University, "Taiwanese / Chinese Identity (1992/06–2025/06)," <https://esc.nccu.edu.tw/PageDoc/Detail?fid=7800&id=6961>.

drawing from Russia's Ukraine war. Nonetheless, Beijing is increasingly reliant on the military as the only tool of persuasion for managing Taiwan, raising the likelihood for unintended events to trigger a rapid climb up the escalation ladder.⁵²

China's Risky Moment

The most dangerous time for a rising power is when it is powerful enough economically, militarily, and politically to draw the attention of the status quo powers yet has not actually achieved the capabilities to live up to the expectations. It is at this moment that countries frequently turn to nationalism and ideology for social cohesion during perilous times, but this turn can exacerbate foreign perceptions. And it is at this moment that China now stands.⁵³ China has a powerful, largely externally oriented, but untested military. Beijing remains reluctant to use its military abroad for fear of undermining its diplomatic position with much of the developing world and being painted as just another imperialist in the pattern of Europe (and the United States). It also fears that using the military aggressively could consolidate American will, and that of America's allies. It has a large and growing economy, but one mired in internal contradictions and is increasingly being targeted by Western powers, challenging Beijing's ability to maintain technological parity with the West. It has shaped itself as the voice of the Global South and a lender of money without political strings, yet the former is waning in the face of aggressive international behavior, the latter losing its efficacy as countries default or force renegotiation of debt.

China is an empire in the modern sense: a nation at the core of a vast international trading and influence architecture, dependent upon far-flung supply lines and export partners. China has no ability to isolate itself from the world's troubles, just as the United States can no longer rely on the protective barriers of the sea and retreat to its own hemisphere. With international engagement comes international entanglement and dependencies, and thus international responsibilities, even if only to one's own national security interests. China remains reliant on the United States as the responder of first resort and the purveyor of international stability, while at the same time stands as the leading voice criticizing and challenging the U.S.'s right to that role.

China's vulnerability breeds a certain hubris, prompting Beijing to overstate its capabilities in an effort to strengthen its deterrence and bolster coercive leverage. China believes it has the right to (re-)claim its place among the leading powers of the world, yet feels vulnerable and threatened, and this contradictory sense of destiny and insecurity can convince Chinese leaders to take greater risks, compel them to accelerate down paths that are dangerous, and ultimately lead to what it seeks to avoid: international confrontation.

⁵² Ian M. Sullivan, "Three Dates, Three Windows, and All of DOTMLPF-P: How the People's Liberation Army Poses an All-of-Army Challenge," *Military Review* (January–February 2024), <https://www.armyupress.army.mil/Journals/Military-Review/English-Edition-Archives/January-February-2024/Sullivan/>.

⁵³ Rodger Baker, "China's Rise as a Global Power Reaches Its Riskiest Point Yet," *Stratfor Worldview*, July 3, 2020, <https://worldview.stratfor.com/article/china-s-rise-global-power-reaches-its-riskiest-point-yet>.

Just as Japan's vulnerability played a large role in its decision to attack the United States in 1941, so too may China soon feel not just the desire but the need to physically degrade U.S. capabilities in China's near abroad in order to secure its own sphere of influence. Today's empires are different from those of the 19th and early 20th centuries: they are less about physical conquest of territory (perhaps Russia and some small powers aside) and more about general control of access to resources, markets, manpower, routes, and political influence. China doesn't necessarily need to physically control the Philippines to remove Manila from the table as a potential vector for strategic threat. But it does need to convince the Philippines, convince Taiwan, convince Vietnam—or the United States, Japan, and Australia—that it has both the capabilities and the will to utilize all aspects of its power to assert its interests. Coercion and deterrence both walk a fine line between being politically effective and altering the threat perception of others to compel preemptive action.⁵⁴

China no longer sits in an ambiguous political space. Few in western political establishments argue for engagement as the main way to manage China's rise and keep Beijing within the North Atlantic's assertion of international norms. Where the United States once tried to manage and cajole China into following a Western path of economic, political, and social development following the end of the Cold War, today that framework has been roundly rejected, and coercion is the name of the game. The continued actions of Russia in Ukraine and around its periphery are also forcing Western nations to reassess whether avoiding confrontation should be the driving theme of national strategic policy, or whether such policies are ultimately capitulation that fail to deter and only delay responses. China's leaders, as well as those of its regional neighbors and the West, are studying the failure of Western deterrence in Ukraine and applying the lessons learned to Taiwan. There is a race between the West and China in the South and East China Sea to see who can out deter and out coerce the other.

China and the West appear locked in a cycle where each feels compelled to respond to the other, each seeks advantage, and smaller powers find themselves the primary arena of competition. Beijing is using history (or its own interpretation of history), as well as a general global discomfort with the asserted universalism of U.S. and Western European ideals to assert its own right to not only rewrite global norms but reclaim its perceived place as a (if not the) central power.⁵⁵ In asserting this global role and responsibility, Xi Jinping has firmly rejected Deng Xiaoping's admonition to walk softly—or perhaps he has recognized that Deng didn't mean forever, he meant that China should bide its time until it could convincingly assert itself on the global stage. Xi has declared China is there already, that it has the capabilities.

It is not clear that this is the case. The last five years have demonstrated that, despite China's amazing economic story and significant military buildup, it remains wracked with

⁵⁴ Tami Davis Biddle, "Coercion Theory: A Basic Introduction for Practitioners," *Texas National Security Review*, Vol. 3, Issue 2 (Spring 2020). <http://dx.doi.org/10.26153/tsw/8864>.

⁵⁵ Nicholas Ross Smith and Tracey Fallon, "How the CCP Uses History," *The Diplomat*, July 1, 2021, <https://thediplomat.com/2021/07/how-the-ccp-uses-history/>.

internal challenges, surrounded by instability and unfriendly neighbors on land and at sea, and may well have overreached its economic and military ambitions. If history is any indicator, China will continue to wrestle with these competing continental and maritime pressures.

This has led to contradictory policies from China as Beijing tries to adapt to its changing political, economic, and security fortunes. China's former strength was the ability to undermine Western coalitions, to remain important enough to some key actors to keep the United States from assembling a cohesive coalition to constrain China's activities.⁵⁶ This strategy is eroding, though not entirely gone. As it erodes, China may become more assertive in shaping perceptions of the risk of opposing China, not merely of the rewards for staying neutral. China's evolution is at its riskiest moment: its ambitions exceed its capabilities, and foreign assessments assume its ambitions and capabilities are even greater than they are. As with previous moments in history, this situation may well lead to overcompensation by China's opponents, and a greater sense of urgency and risk tolerance on the part of China's leadership. While there is no deterministic "Thucydides Trap" at play, there is an international environment increasingly fraught with risks of miscalculation, overambitious assertions, and blunt coercive and deterrent moves.

For China, this is the moment to break with past historical cycles, to avoid the dynastic collapse and to claim a role as a global great power. For the United States, it is a moment of challenge to a decades-long strategic policy of balance of power in Eurasia, of keeping risks far from U.S. shores through a forward deployed navy, and of an ideological economic and political policy imposed upon the international system. A clash is not inevitable, but the sense of the inevitable may well make it a reality.

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⁵⁶ Rodger Baker, "The U.S.-China Ideological Divide and the Challenge of Cohesion," *Stratfor Worldview*, July 30, 2020, <https://worldview.stratfor.com/article/us-china-ideological-divide-and-challenge-cohesion>.



ANALYSIS

DIMET: RECONFIGURING GLOBAL POWER IN THE TECHNO-STRATEGIC AGE

Curtis McGiffin

Executive Summary

Today's fourth industrial revolution is characterized by artificial intelligence, automation, advanced manufacturing, and immersive technologies. As these innovations reshape societies and security environments, they have emerged as a core determinant of national power. No longer just an enabler of diplomacy, information, military, or economic power instruments, technology now serves as a fifth lever of power—changing the DIME framework of national power projection into the DIMET. It influences every aspect of statecraft, fueling economic competitiveness, military strength, geopolitical influence, and strategic resilience.

In this new era of “techno-strategic” power, technological sophistication both enhances and redefines a nation's ability to secure interests, project influence, and withstand strategic competition. “Technological States” that can leverage cutting-edge robotics, AI, biotechnology, quantum systems, space architecture, hypersonics, and advanced cyber capabilities will gain a military advantage, boost economic competitiveness, shape global governance, influence public opinion, and safeguard sovereignty. Technology also drives dependency and interconnectivity, making the ability to control, protect, and innovate critical systems a key measure of national resilience. Nations that proactively embrace, invest in, and strategically oversee forward-looking technological capabilities will define the future global order.

Technological power is now inseparable from strategic deterrence. It accelerates decision cycles, blurs the line between peace and conflict, and introduces new vulnerabilities across physical, digital, and biological domains. Technological power now decides whether nations can defend against cyberattacks, resist strategic coercion, and deter technologically sophisticated adversaries or face consequences from those who possess it. In this environment, mastery of cutting-edge technology has become the new strategic factor in shaping global order.

Introduction

The Information Age began in the mid-twentieth century with the invention of the transistor and the development of first-generation computers. The digital revolution accelerated in the 1970s, transforming society by the 1990s with the normalization of the internet. New inventions continue to disrupt the socio-economic landscape and enter the military-

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industrial complex. Today, the world is in the midst of the fourth industrial revolution, advancing the digital age through machine learning, automation, digitalized manufacturing, and augmented reality.¹

In the twenty-first century, the levers of national power have evolved beyond the traditional DIME framework—diplomacy, information, military, and economic strength—to include a fifth lever: technology. No longer merely a supporting function, technology has become embedded within all other instruments of power, acting simultaneously as an enabler, a multiplier, and a core indicator of national capability. Advances in robotics, artificial intelligence (AI), biotechnology, quantum computing, and related fields shape a nation's ability to secure its interests, project influence, and withstand strategic competition. As these technologies mature, they redefine both what power is and how it can be projected.

This new era of “techno-strategic” power deliberately integrates advanced technological capabilities with national strategy, fusing intelligent societies and innovative industries into a competitive engine of state power that blurs the boundaries between the physical, digital, and biological domains, reshaping how nations generate influence, project strength, and prepare for conflict.²

Explaining the Instruments of Power

For any country, geopolitical power is the ability to influence others' behavior to achieve desired outcomes, which are viewed as interests secured through the instruments of national power.³ National power is central to determining a state's position, influence, and ability to exercise strategic options within the international system. Traditionally assessed by military strength, economic capacity, and diplomatic influence, national power is often viewed through the lenses of hard power (coercive methods to compel compliance) and soft power (persuasion or attraction to garner compliance).⁴

The projection of state power traditionally involves four main instruments: DIME (diplomatic, information, military, economic). These instruments of national power frequently overlap or connect to create synergies of influence or to maximize power. This framework helps strategists and policymakers to organize, formulate, and mobilize these power sources to meet their objectives:

¹ “What are Industry 4.0, the Fourth Industrial Revolution, and 4IR?,” *McKinsey & Company*, Accessed July 9, 2025, <https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-are-industry-4-0-the-fourth-industrial-revolution-and-4ir>.

² Leo Blanken, Doowan Lee, and Stephen Rodriguez, “The Imperative of Waging Techno-Strategic War: Looking Back at Technology Innovation,” *Strategy Bridge*, August 17, 2018, <https://thestrategybridge.org/the-bridge/2018/8/17/the-imperative-of-waging-techno-strategic-war-looking-back-at-technologyinnovation>.

³ Robert D. Worley, *Orchestrating the instruments of power: a critical examination of the U.S. national security system* (Potomac Books, an imprint of the University of Nebraska Press, 2015), p. 225.

⁴ “Hard Power vs. Soft Power: How Nations Really Influence Each Other,” *GovFacts*, November 24, 2025, <https://govfacts.org/policy-security/hard-power-vs-soft-power-how-nations-really-influence-each-other/>

- **D - Diplomatic:** This refers to using diplomacy, relationships, and negotiation to influence and achieve national goals. It involves persuasive engagement among states, including formal and informal discussions, treaties, and alliances.⁵
- **I - Informational:** This covers a nation's ability to gather, control, and manipulate information to achieve strategic, political, economic, or military goals. It uses information and communication strategies to influence foreign audiences, shape narratives, and promote national interests. Examples include public diplomacy, strategic communications, media engagement, cultural exchanges, cyber operations, combating disinformation, and information management security.⁶
- **M - Military:** This refers to the threat or use of armed force to achieve national objectives and further national interests. It includes deterrence, combat operations, security assistance, military training, multinational exercises, and humanitarian aid delivery.⁷
- **E - Economic:** This entails leveraging economic resources, access, and tools to influence other states. It encompasses international trade (access to goods, services, and resources), global finance (including investment, credit, and transaction access), and development assistance (grants, aid, and debt relief).⁸ Economic statecraft includes "carrots," of aid, trade, and treaties, as well as "sticks," such as sanctions, tariffs, and export controls.⁹

Successful foreign policy often requires a "whole-of-government" approach in which diplomatic efforts are backed by credible military power, supported by information campaigns, and reinforced by economic incentives or disincentives.

Technology as an Instrument of National Power

In the early stages of the Cold War, the United States used technology in the form of nuclear weapons to offset or counterbalance the Soviet Union's non-nuclear military force advantages.¹⁰ During the Second Offset (mid-1970s to late 1980s), Washington relied on leap-ahead technologies,¹¹ including precision munitions, stealth, persistent surveillance, and fourth-generation fighters, focusing on quality over quantity against the Warsaw Pact's numbers after the Vietnam War.¹² The Pentagon's 2015 Third Offset initiative emphasized

⁵ Steven Heffington, Adam Oler, and David Tretler, *A National Security Strategy Primer*, (Washington, D.C.: National Defense University Press, 2019), pp. 24-25.

⁶ Ibid., pp. 25-27

⁷ Ibid., pp. 28-29

⁸ Ibid., pp. 30-32

⁹ Worley, *Orchestrating the Instruments of Power*, op. cit., p. 233.

¹⁰ Gian Gentile, Michael Shurkin, Alexandra T. Evans, Michelle Grisé, Mark Hvizda, and Rebecca Jensen, *A History of the Third Offset, 2014–2018* (Santa Monica, CA: RAND Corporation, 2021), https://www.rand.org/pubs/research_reports/RRA454-1.html.

¹¹ Rebecca Grant, "The Second Offset," *Air & Space Forces Magazine*, June 24, 2016, <https://www.airandspaceforces.com/article/the-second-offset/>.

¹² Gentile, Shurkin, et al., "A History of the Third Offset."

robotics, AI, cyber, unmanned systems, and machine learning, recognizing that adversaries were gaining or leading in technology.¹³

In her 2021 article, Maria Constantinescu from the National Defense University in Romania emphasized that the volatile, uncertain, and complex security environment necessitated a comprehensive approach that incorporates technology within a DIME-T framework across all security domains.¹⁴ She noted that “technology will likely influence the operating environment of the future in direct and indirect ways,” urging security strategies to reflect this.¹⁵ Her clarion call to elevate technology beyond simply enabling improved national security was insightful; however, it did not fully explain how technology might be applied in context.

The term “technology” as an instrument of power emphasizes “high tech,” involving significant investment in and use of advanced science and engineering methods or materials to perform complex functions. It shifts technology from an element of power to an instrument of power. While natural resources, population, and infrastructure form the elements of state strength, instruments like technology project power. Technological progress has accelerated and is now a key factor of power and influence, not just an element of national strength.¹⁶

Those who understand nuclear deterrence theory recognize that credibility is as important as capability. In current geopolitics, technological power not only projects real power, but it also shapes perceptions of power.

Projecting real power. Technology is already recognized as a key enhancer of DIME power, facilitating global communication, finance, navigation, and military force projection. However, projecting technological power is the deliberate use of advanced technology to influence other nations, achieve foreign policy objectives, bolster security, and enhance economic strength. It impacts terrestrial, maritime, aerial, space, and cyberspace domains, often crossing boundaries in nanoseconds by transmitting data via bits, pulses, and waves. Moreover, from drones and AI to satellites and quantum computing, technology is agnostic to civilian and military uses, often employing dual-use capabilities that permeate the commercial marketplace and the battlefield. Finally, the projection of technological power also occurs when dominance is paired with dependency—when others must rely on your systems to maintain their own functionality. Reliance on a nation’s technological authority extends beyond mere possession of technology; it encompasses ongoing support and access to emerging technologies, which can stimulate allied interoperability, foster diplomatic connectivity, and enhance economic integration.

¹³ Robert Work, Deputy Secretary of Defense, *The Third U.S. Offset Strategy and its Implications for Partners and Allies*, Speech Transcript, Washington, D.C., January 28, 2015, <https://www.defense.gov/News/Speeches/Speech/Article/606641/the-third-us-offset-strategy-and-its-implications-for-partners-and-allies/>.

¹⁴ Maria Constantinescu, “The National Security Strategy in the Current Environment: From Dime to a Dime-T Approach,” *International Conference Knowledge-Based Organization*, Vol. 27, No. 1, June 2021.

¹⁵ Ibid.

¹⁶ Ibid.

Shaping perceptions of power. Generally, countries perceive the power of other nations through a combination of material production, observed actions, and future potential. They often assess military strength, economic performance, and technological sophistication to establish a baseline of objective power. Perceptions are further shaped by a nation's reputation for competence, its trajectory of innovation, and its capacity to generate future advantages. In today's digital world, the most influential nations lead in technology. Technology now defines how states compete, collaborate, and project sovereignty. Taiwan has leveraged its advanced semiconductor industry to attract Western investment and security guarantees, producing 90 percent of the world's most sophisticated microchips, which serve as a "silicon shield" to prompt a U.S. military response should they be attacked.¹⁷ This highlights the risk of global disruption if China were to launch a military attack in pursuit of unification. Taiwan must strike a balance between collaborating with the United States and addressing concerns that relocating chip manufacturing could compromise its security. For Taiwan, its microchip industry is not just an economic asset; it is a perceived form of sovereign power that influences the behavior of other states.

Technology is a tool of national power that both drives and is driven by other instruments, leveraging multiple domains and serving various functions.¹⁸ Within the DIME framework, diplomacy seeks to achieve agreement, information disseminates knowledge, the military employs coercion, and economics strives for prosperity; technology facilitates the exquisite execution of these instruments of power. However, technology today is not merely an enabler; it constitutes a decisive strategic domain. It shapes the balance of power, determines the character of war, pervades the media, and energizes the global marketplace. Technology enables nations to project power and influence on an expanded scale, extending well beyond their borders. Thus, adding technology as a fifth instrument of national power would necessarily change the acronym from DIME to DIMET (pronounced "Dye-Met"). Therefore, including the "T - Technology" in the DIME framework descriptions would be as follows:

- **T - Technology:** This pertains to the pragmatic utilization of scientific knowledge and engineering expertise, as well as the invention, deployment, and exploitation of devices and methods to enhance human performance, while concurrently reducing the impact of time, distance, and volume.¹⁹

In this world, no country is entirely devoid of technology. There exist "states with technology," "technological states," and "technologically marginal" states. The difference

¹⁷ Matthew Shea, "Taiwan's chip dominance becomes global security, economic flashpoint," *United Press International* (June 12, 2025), https://www.upi.com/Top_News/World-News/2025/06/12/taiwan-semiconductors-world-economy/1961749741666/.

¹⁸ Zachary Kallenborn, "National Security Needs Both Futurists and Traditionalists," *War on the Rocks*, April 1, 2021, <https://warontherocks.com/2021/04/national-security-needs-both-futurists-and-traditionalists/>.

¹⁹ Description informed by: James Andrew Lewis, "Technology and Power," *Center for Strategic and International Studies*, March 30, 2022, <https://www.csis.org/analysis/technology-and-power#:~:text=This%20series%20of%20short%20essays%20will%20examine%20key,they%20can%20be%20used%20to%20gain%20national%20advantage.>

between a state with technology and a technological state pertains to the extent to which technology is integrated into the fabric of that state's national power and strategic goals.

A State with Technology is a country that has or uses technology, but technology is not central to its national identity, power, or strategic actions. It relies on commercially available off-the-shelf technology for internet access, communication, and military strength, but may lack significant local investment, innovation, or research and development capabilities.

A Technological State is a country where technology underpins its identity, policy, and power. It invests heavily in science, innovation, and emerging technologies to boost its military and global stature; utilizes technology to shape international norms and geopolitics; and leverages technology for sovereignty, deterrence, and competitiveness. It also has a robust state-tech-industrial complex, like military-tech partnerships, digital governance, cyber capabilities, and strong local innovation.

A Technologically Marginal State is a country with only basic or antiquated technology, and is often fragile, isolated, or failed. It has minimal infrastructure, suppresses innovation, lacks governance or access to technology, or may outright reject it. Generally, these states do not develop technology, lack control over it, are unable to weaponize it, and remain susceptible to those who possess such capabilities.

"States with technology" utilize it to maintain a modern, connected society in the global landscape. However, "technological states" leverage technology as a core part of their power and identity, boosting their military and economic influence. A technologically advanced state is often perceived as forward-looking, resilient, wealthy, and powerful. In a world where perception matches actual performance, technological strength is the new strategic currency. Whether stabilizing or disruptive, only a "technological state" can develop and exploit high-tech tools to impact global markets, influence governments, and deter or defend militarily with high-tech capabilities.²⁰

Technological power lies not only in scale, but also in control and purpose. It serves as a powerful tool that can impact a technologically advanced nation across six distinct categories. These six categories can both overlap and inform one another.

1. Military Dominance Through Technological Superiority

Technology's role as a national power is most visible in military capabilities. From the bow and arrow to drones and satellites, technological advances have shaped the character of warfare.²¹ Today, disruptive technologies like autonomous weapons, hypersonic missiles, AI decision-making, and directed energy are driving a paradigm shift in military preparation. High-tech militaries tend to embrace the transition from evolutionary to revolutionary

²⁰ Christopher F. Chyba, "New Technology & Strategic Stability," *Daedalus* 149, No. 2, Spring 2020, pp. 150-170, <https://direct.mit.edu/daed/article/149/2/150/27321/New-Technologies-amp-Strategic-Stability>.

²¹ "Emerging and disruptive technologies," *NATO*, June 25, 2025, Accessed November 22, 2025, <https://www.nato.int/en/what-we-do/deterrence-and-defence/emerging-and-disruptive-technologies>.

capabilities, strategies, and organizations.²² Modern high-tech militaries depend on information dominance rather than mass production, tend to prioritize network-centric operations over platform-centric approaches, and are potentially shifting from human intuition and cognition to AI autonomy and rapid processing.²³ Modern militaries now rely on advanced technology for precision strikes, missile defense, and battlefield awareness. America maintains its global influence and threats through its advanced long-range stealth aircraft, cyber capabilities, and satellite networks, underscoring its leadership in technology. When it comes to American technology and its impact on military capability, it is as much about the engineers as it is about the generals.²⁴

While Russia's nuclear weapons technology has largely matured over the past half-century, nearly every category of its conventional, electronic, and space warfare capabilities has experienced notable technological advancement. Despite prolonged economic and technical sanctions, Russia's adoption of emerging technologies—including AI, unmanned systems, and hypersonic weapons—signals a significant shift in its defense strategy and provides competitive advantages in select domains. In 2017, President Putin asserted that “the one who becomes the leader in this [AI] sphere will be the ruler of the world.”²⁵ Moscow's progress in hypersonic glide vehicles and cruise missiles, advanced air and missile defenses, and its pursuit of AI-enabled and nuclear-powered autonomous systems now challenge existing arms-control frameworks, exploiting gaps that heighten geopolitical tensions and undermine global stability.²⁶

China pursues a campaign to dominate critical advanced technology sectors and its military is rapidly integrating emerging technologies to strengthen its forces and deploy disruptive military capabilities.²⁷ China's rapid militarization of AI, space systems, hypersonic weapons, and quantum communications underscores its strategic goal of achieving military parity with the US or dominance. China's 2021 test of a new orbital bombardment system showcased a significant technological breakthrough, with a 40,000 km flight in under 100 minutes. This unprecedented development disrupted the military balance and was likened to a “Sputnik-like moment” by then-Chairman of the Joint Chiefs of Staff, General Mark Milley.²⁸ Technological surprises typically result from a state's deliberate

²² “The Transformative Effects of Military Revolutions on Warfare,” *Total Military Insight*, July 15, 2024, <https://totalmilitaryinsight.com/military-revolutions-and-their-impacts/>.

²³ Michael Bennett, “Artificial intelligence vs. human intelligence: Differences explained,” *TechTarget.com*, October 7, 2024, <https://www.techtarget.com/searchEnterpriseAI/tip/Artificial-intelligence-vs-human-intelligence-How-are-they-different>.

²⁴ Benjamin Jensen, Yasir Atalan, Can Mutlu, and Jose M. Macias III, *Competition in the Shadow of Technology* (Washington, D.C.: Center for Strategic & International Studies, 2024), p. 1.

²⁵ Putin: Leader in artificial intelligence will rule world, *Associated Press*, September 1, 2017, <https://apnews.com/article/bb5628f2a7424a10b3e38b07f4eb90d4>.

²⁶ Defense Intelligence Agency, *2025 Annual Threat Assessment*, Washington, DC: May 11, 2025.

²⁷ *Ibid.*, p. 7.

²⁸ Emma Helfrich, Tyler Rogoway, “More Details On China's Exotic Orbital Hypersonic Weapon Come To Light: An official report on Chinese military power revealed additional details about its hypersonic weapon test that made headlines in July

effort to disrupt the status quo, especially when involving the military capabilities of a rival state.

Weaponizable technological advancements that surprise the world can be destabilizing unless they are balanced or countered. While evolutionary technological improvements boost military effectiveness, revolutionary high-tech forces create greater fear and influence than ever before.

Cyber warfare opens a new domain of conflict where nations can exert power without traditional kinetic methods. Cyberattacks can disable critical infrastructure, steal secrets, and disrupt command-and-control networks. Smaller rogue powers like North Korea and Iran employ cyber tools to confront Western powers. Combining and leveraging technology with military and intelligence operations now allows smaller nations to showcase their strength in ways previously not possible.

2. Economic Competitiveness and the Technological Edge

Technology fuels economic growth, productivity, and global influence. It is much more than just access to the internet and mobile phones. Nations leading in technology excel in specialized industries, attract top talent, and set global standards. Currently, economic leaders such as the United States, China, Germany, Japan, Taiwan, and South Korea have achieved their status through continuous research and development, high-tech manufacturing, and advancements in fields including AI, biotech, robotics, telecommunications, and advanced materials.

Technology now drives economic security, which merges national security and economics.²⁹ Semiconductor supply chains, rare earth elements, 5G infrastructure, and microchips are not just commercial items; they are strategic assets. The 2022 global semiconductor shortage showed how access to critical technologies can affect everything from vehicle manufacturing to national defense systems. Recognizing this, countries are adopting “techno-nationalism,” focusing on domestic innovation, securing supply chains, and restricting exports of critical technologies to competitors. China’s “Made in China 2025” plan and the U.S. CHIPS and Science Act exemplify how nations embed technology into grand strategies, employing the DIME framework to further the “T,” to help sustained or improve their respective power positions.

Technological states are not just wealthy; they also dominate the global market share. The economies of the world’s five most technologically advanced nations—Japan, the Republic of Korea, China, the United States, and Germany—constitute 52 percent of the global gross domestic product.³⁰ Moreover, the United States, China, and Japan account for

2021,” *The War Zone*, November 30, 2022, <https://www.twz.com/more-details-on-chinas-exotic-orbital-hypersonic-weapon-come-to-light>.

²⁹ Justin G. Muzinich, Gina M. Raimondo, James D. Taiclet, Jonathan E. Hillman, Anya Schmemmann, “U.S. Economic Security: Winning the Race for Tomorrow’s Technologies,” *Council on Foreign Relations*, New York, November 13, 2025.

³⁰ “Most Technologically Advanced Countries 2025,” *World Population Review*, August 10, 2025. <https://worldpopulationreview.com/country-rankings/most-technologically-advanced-countries>.

nearly 65 percent of the global stock market capitalization.³¹ For example, “Apple’s market cap alone (\$3.56 trillion) is nearly equal to the entire stock market valuation of the United Kingdom (\$3.7 trillion), while “Nvidia (\$3.21 trillion) is almost as big as the combined stock markets of Canada and India.”³² These comparisons highlight the dominance of just two American high-tech companies and select technological states on the global stage.

3. Geopolitical Influence Through Technological Diplomacy

Technology is increasingly shaping global influence and alliances. Technological states are increasingly adopting technological diplomacy, a practice rooted in the power of innovation—the ability to create, regulate, and control transformative technologies. This approach often includes aspects of digital diplomacy, which relies on information power to shape narratives and influence audiences through digital platforms and social media. In contemporary international relations, however, significant state influence more often comes from guiding technological development and managing high-tech innovation ecosystems rather than solely relying on digital communication. While digital diplomacy mainly seeks to influence through communication, often using widely available digital and social media platforms, technological diplomacy exerts influence by developing, managing, and governing those platforms, capabilities, and standards that support the global technological framework.³³

Leading countries in technological innovation set rules, regulate data, establish standards, and guide governance models. The competition over 5G networks between the United States and China exemplifies the intertwined economic and military rivalry. Washington’s attempt to keep China’s telecom systems out of the allied infrastructure was more than corporate rivalry; it was a strategic effort to prevent Beijing from embedding surveillance, gaining control over global networks, or conducting espionage in allied territories.

Similarly, nations are leveraging technology to advance diplomacy and cultivate strategic partnerships. For example, the European Union (EU) utilizes its regulatory influence—the so-called “Brussels Effect”—to shape global standards on data privacy. The United States, through its “tech companies,” shapes much of the digital infrastructure and services used worldwide. Meanwhile, China exports surveillance technologies to autocratic regimes under the guise of “smart cities,” thereby spreading its model of digital authoritarianism.

³¹ Harshita Tyagi, “US commands half of Global Stock Market! Apple, Nvidia, Tesla and other top 10 giants hold 32% of it,” *IND Money*, February 14, 2025, <https://www.indmoney.com/blog/us-stocks/us-commands-half-of-global-stock-market-apple-nvidia-tesla-and-other-top-10-giants-hold-32-of-it>.

³² Ibid.

³³ “Digital Diplomacy vs. Tech Diplomacy: Understanding the Difference,” *Tech Diplomacy Institute*, accessed 11/22/2025, <https://tech-diplomacy.com/digital-vs-tech-diplomacy-navigating-the-new-frontiers-of-international-relations/#:~:text=Tech%20diplomacy%2C%20conversely%2C%20centers%20on,within%20diplomatic%20and%20governance%20frameworks>.

Strategic partnerships, such as AUKUS (comprising Australia, the United Kingdom, and the United States) and the Quadrilateral Security Dialogue or the “Quad” (comprising the United States, India, Japan, and Australia), focus on technological cooperation in defense (nuclear-powered submarines), cybersecurity, and supply chain resilience. Technology now influences international norms, rules, and institutions, while connecting Western democracies. These democracies are becoming more integrated through shared digital infrastructure, cybersecurity standards, and common ethical frameworks.

4. Cyber Power and Manipulation

Cyber capabilities represent a new and powerful means of national power. They now shape markets, supply chains, and corporate governance as profoundly as they affect modern military operations. At the same time, digital influence campaigns reshape public opinion and alter political dynamics in ways once reserved for traditional statecraft or advertisement. As these trends converge, economic competition, military readiness, and information dominance become inseparable pillars of national power.

Cyberattacks can sabotage nuclear centrifuges, infiltrate critical infrastructures, or paralyze financial systems, thereby achieving strategic effects. Attacks on utilities, government facilities, and pipelines pose a significant threat to life and can have cascading effects for consumers. The difficulty in attribution and deniability makes cyber operations attractive to both state and non-state actors. Ransomware costs victims over \$810 million in 2024, down from \$1.25 billion in 2023.³⁴ The United Nations reports North Korea has stolen \$3 billion in cryptocurrency to fund its nuclear weapons program.³⁵

Cyber power extends beyond hacking to include information warfare, influence operations, and digital coercion. Russia’s disinformation campaigns seek to weaken democracy, polarize societies, and erode trust in the United States and Western Europe. “Russian disinformation campaigns effectively exploit societal vulnerabilities, reshaping public opinion and geopolitical dynamics.”³⁶ Similarly, the use of bots, trolls, and deepfakes adds a new dimension to strategic competition, where truth itself is now a contested domain. China spreads authoritarian AI worldwide, with models like DeepSeek’s R1 and Alibaba’s Qwen 2.5 rewriting history, censoring abuses, and suppressing topics to control online

³⁴ Bill Toulas, “Ransomware payments fell by 35% in 2024, totaling \$813,550,000,” *Bleeping Computer*, February 5, 2025, <https://www.bleepingcomputer.com/news/security/ransomware-payments-fell-by-35-percent-in-2024-totalling-813-550-000/>.

³⁵ Patrick Martin, “North Korea is behind cyberattacks worth \$US3 billion and is stealing cryptocurrency to fund weapons programs, UN report finds,” *Australian Broadcasting Corporation*, March 21, 2014, <https://www.abc.net.au/news/2024-03-22/north-korea-stealing-cryptocurrency-to-fund-nuclear-weapons/103618152>.

³⁶ Kateryna Odarchenko, “The Fight Against Disinformation: A Persistent Challenge for Democracy,” *Foreign Policy Research Institute*, January 24, 2025, <https://www.fpri.org/article/2025/01/the-fight-against-disinformation-a-persistent-challenge-for-democracy/>.

discourse. China floods the market with ‘free’ open-source models that contain censorship while investing heavily in proprietary AI to achieve strategic dominance.³⁷

Cyber operations and influence are now a staple in this global digital society and its militaries. Ubiquitous cyber technology enables malware, denial-of-service attacks, and social engineering to disrupt, damage, or infiltrate enemy systems, as seen in the 1982 Soviet pipeline sabotage, the 2007 cyberattacks on Estonia, the 2010 malware attack on Iran’s centrifuges, and the 2015 network attack on Ukraine’s power grid.³⁸ Defensive strategies focus on protecting infrastructure through firewalls, intrusion detection systems, digital encryption, and incident response plans, which are now necessary and responsible technical reactions. As digital connectivity deepens, adapting to future trends—such as the expanding and sophisticated influence of the Internet of Things, cyber-enabled surveillance, and AI-infused cyber operations—is essential for national resilience and global stability.

Emerging cyber-fused technologies are transforming both boardrooms and battlefields, reshaping how leaders assess risk, allocate resources, and compete for advantage—especially within the man-made environment of cyberspace. States capable of integrating AI with advanced cyber capabilities may process vast volumes of data at speed, extract predictive and actionable insights, and convert information superiority into decisive strategic advantage.³⁹

Meanwhile, international laws, ethical considerations, and collaborative defense efforts seek to regulate behavior and enhance collective security. Countries and global corporations alike are now developing both offensive and defensive cyber strategies, investing in cyber commands, and viewing cyberspace as a frontier for economic, military, and diplomatic goals. The concepts of “persistent engagement” and “defend forward” in U.S. cyber strategy show that cyber operations are no longer just reactive—they are now a proactive, integrated part of national power.⁴⁰

5. Strategic Resilience and Technological Sovereignty

Navigating a complex and uncertain world requires strategic resilience and technological sovereignty to maximize technology’s influence against great power competitors. The rapid development or deployment of new or novel technologies can lead to strategic surprises, catching nations unprepared at the strategic level. Countries with a mutually reinforcing

³⁷ Doug Kelly, “America Must Act Now to Secure Tech Leadership, New Study Finds,” *American Edge Project*, March 25, 2025, <https://americanedgeproject.org/america-must-act-now-to-secure-tech-leadership-new-study-finds/>

³⁸ Harry Atkins, “The Biggest Cyberattacks in History,” *History Hit.com*, March 24, 2022, <https://www.historyhit.com/the-biggest-cyberattacks-in-history/>.

³⁹ Rakibul Hasan Chowdhury, Nayem Uddin Prince, Salman Mohammad Abdullah, and Labonno Akter Mim “The role of predictive analytics in cybersecurity: Detecting and preventing threats” *World Journal of Advanced Research and Reviews*, 2024, 23 (02), pp. 1615-1623, <https://wjarr.com/sites/default/files/WJARR-2024-2494.pdf>

⁴⁰ Department of Defense, *2023 Cyber Strategy Summary* (Washington, D.C.: U.S. Department of Defense, 2023), https://media.defense.gov/2023/Sep/12/2003299076/-1/-1/1/2023_DOD_Cyber_Strategy_Summary.PDF.

foundation rooted in resilience and sovereignty can lessen the possible impact of disruptive technologies that may exploit weaknesses and escalate risks.

Strategic resilience is a country's ability to anticipate, endure, and recover from disruptions that threaten its core military, economic, or technological functions, independence, or direction.⁴¹ Technological sovereignty is a nation's capacity to develop, acquire, control, and safeguard its critical technologies and digital infrastructure.⁴² When used together, resilience and sovereignty enable greater freedom of action by fostering increased technical agility and redundancy, as well as more control over data and supply chains amid interdependence, global competition, and systemic risks.

High-tech nations must protect critical infrastructure and data sovereignty, and foster resilient technological ecosystems. The recent pandemic and the war in Ukraine have revealed vulnerabilities in global supply chains,⁴³ an overdependence on adversaries' technology, and the need for resilient domestic capacity. Efforts such as Europe's GAIA-X cloud infrastructure,⁴⁴ India's push for "digital sovereignty,"⁴⁵ and the U.S. reshoring of semiconductor production⁴⁶ all seek to secure autonomy, reduce adversaries' leverage, and bolster strategic independence.

Another example of technological sovereignty is space-based navigation. Countries like Russia, China, and those within the EU have developed their own satellite systems for positioning, navigation, and timing (PNT), thereby reducing their reliance on the United States' Global Positioning System. Russia's Global Navigation Satellite System, with approximately 30 satellites, China's BeiDou with 35, and the EU's Galileo with 28, all have achieved global coverage. Japan and India are also developing regional space-based PNT. These efforts demonstrate how nations strive for digital and navigational sovereignty, showcase their technological capabilities, and enhance their global prestige.

The struggle to sustain and control sovereign and resilient technology is driven by the need to secure it against adversarial competitors and vulnerable supply chains. Technology is politically neutral and cannot always align with democratic values, Western ethical standards, or international security protocols. Nevertheless, a nation's control over its high-tech is vital to its strategic survival amid great-power rivalry.

⁴¹ Department of Defense, *National Defense Strategy* (Washington, D.C.: Department of Defense, 2022), p. 8.

⁴² GP Acharya, "Tech Sovereignty: National Power Capability to [sic] Threat to Humanity," *Nepal Foreign Affairs*, May 18, 2022, <https://nepalforeignaffairs.com/tech-sovereignty-national-power-capability-to-threat-to-humanity/>.

⁴³ 24/7 Staff, "The 13 Biggest Supply Chain Disruptions Since 2000," *Supply Chain 24/7.com*, May 20, 2025, <https://www.supplychain247.com/article/the-biggest-supply-chain-disruptions-since-2000>.

⁴⁴ "About Gaia-X," *Gaia-X* (website), last modified 2023, <https://gaia-x.eu/about/>.

⁴⁵ Shuborno Chakroborty, "AI, Digital Sovereignty, and Geopolitics: India's Strategic Positioning Between the U.S. and China," *Impact and Policy Research Institute*, May 2, 2025, <https://www.impriindia.com/insights/ai-digital-geopolitic-indias-strategic/>.

⁴⁶ Bill Conerly, "U.S. Manufacturers Reshoring, But It Will Take A Long Time," *Forbes*, August 19, 2023, <https://www.forbes.com/sites/billconerly/2023/08/19/us-manufacturers-reshoring-but-it-will-take-a-long-time/>.

6. Technology and Strategic Deterrence

Finally, technology is redefining deterrence in fundamental ways. In the Cold War era, U.S.-Soviet strategic deterrence was about mutually assured destruction and clear signaling. In the digital era, deterrence becomes more complex and ambiguous. Attribution is more difficult, escalation is uncertain, and the lines between war and peace, as well as between civilian and military, are increasingly blurred.

War remains primarily a political act, not just driven by advanced technological capabilities. Yet, greater risks emerge when autocratic nations combine strong geopolitical ambitions with highly effective militaries equipped with technologically sophisticated weapons that have intercontinental reach across all domains. The implications for strategic deterrence may be significant. A recent RAND study noted that “collections of emerging technologies—especially in the realms of information aggression and manipulation, automation [AI], hypersonic systems, and unmanned systems—hold dramatic implications for both the effectiveness and stability of deterrence.” Moreover, strategic deterrence becomes significantly more difficult to maintain when adversaries threaten to employ integrated, multi-technology strategies that can simultaneously strike numerous points across diverse attack surfaces and vectors. Such convergence enables the prospect of “society-wide paralytic attacks,” potentially eroding deterrence by giving an aggressor confidence that it can disable or delay a defender’s response long enough to achieve its objectives.⁴⁷

The pursuit of nuclear weapons has not diminished since the conclusion of the Cold War; rather, it has transformed into a new arena of strategic competition. For North Korea, Iran, and Pakistan, the aspiration for nuclear armament extends beyond mere sovereign security; it now represents a symbol of national pride and technical ability. In October 1965, shortly after losing the Indo-Pakistani War of that year, Pakistan’s Foreign Minister Zulfikar Ali Bhutto declared, “If India builds the [atom] bomb, Pakistan will eat grass or leaves, even go hungry, but we will get one of our own.”⁴⁸ This statement became a cornerstone of Pakistan’s nuclear policy and served as a North Star for decades to come. Moreover, North Korea has

⁴⁷ Mazarr, Michael J., Ashley L. Rhoades, Nathan Beauchamp-Mustafaga, Alexis A. Blanc, Derek Eaton, Katie Feistel, Edward Geist, Timothy R. Heath, Christian Johnson, Krista Langeland, Jasmin Léveill  , Dara Massicot, Samantha McBirney, Stephanie Pezard, Clint Reach, Padmaja Vedula, and Emily Yoder, *Disrupting Deterrence: Examining the Effects of Technologies on Strategic Deterrence in the 21st Century* (Santa Monica, CA: RAND Corporation, 2022), https://www.rand.org/pubs/research_reports/RRA595-1.html.

⁴⁸ Khushwant Singh, “Foreign Affairs Pakistan, India and The Bomb,” *The New York Times*, p. 21, July 1, 1979, <https://www.nytimes.com/1979/07/01/archives/foreign-affairs-pakistan-india-and-the-bomb.html>.

employed technology in its pursuit of a substantial nuclear arsenal to coerce its neighbors⁴⁹ and prevent domination by the United States.⁵⁰

For decades, technological progress has enhanced both offensive and defensive capabilities, thereby reinforcing strategic deterrence. The development of intercontinental ballistic missiles, dual phenomenology, and variable-yield nuclear warheads exemplifies the significant impact that technological advancements have had on the deterrence strategies employed by major powers. Currently, the emergence of AI-enabled weaponry, hypersonic capabilities, and space-based attack vectors may reduce warning and decision times, thereby generating unpredictable dynamics that could potentially lead to escalation.⁵¹ Quantum technologies may one day render today's encryption or stealth obsolete, upending information security and jeopardizing long-range strike abilities. Moreover, biotechnology may enable the development of new forms of genetically engineered bioweapons that will be more difficult to detect, attribute, and deter.⁵²

However, according to President Trump, "The threat of attack by ballistic, hypersonic, and cruise missiles, and other advanced aerial attacks, remains the most catastrophic threat facing the United States."⁵³ While ballistic missile defense offers countries the ability to "deter—and defend its citizens and critical infrastructure against—any foreign aerial attack on the Homeland,"⁵⁴ it may also enhance the state's ability to control escalation. Some experts posit that technological innovation now exists to create a "Golden Dome," a practical effort that will enhance deterrence and counter Russian and Chinese regional "theories of victory."⁵⁵ Others, however, argue that the Russians and Chinese are "going to build better offenses so they can overcome these defenses," perhaps igniting a new kind of arms race.⁵⁶

⁴⁹ National Intelligence Council, "North Korea: Scenarios for Leveraging Nuclear Weapons Through 2030," *NIE 2023-00262-B* (Washington, D.C.: National Intelligence Council, January 2023), <https://www.dni.gov/files/ODNI/documents/assessments/NIC-Declassified-NIE-North-Korea-Scenarios-For-Leveraging-Nuclear-Weapons-June2023.pdf>.

⁵⁰ Doug Bandow, "North Korea Needs the Bomb to Protect Itself from America," *Cato Institute*, July 7, 2021, <https://www.cato.org/commentary/north-korea-needs-bomb-protect-itself-america>.

⁵¹ Adam Lowther and Curtis McGiffin, "America Needs a 'Dead Hand'," *War on the Rocks*, August 16, 2019, <https://warontherocks.com/2019/08/america-needs-a-dead-hand/>.

⁵² Yelena Biberman, "Deterrence in the Age of Weaponizable Biotechnology," *Georgetown Journal of International Affairs*, June 4, 2025, <https://gjia.georgetown.edu/2025/06/04/deterrence-in-the-age-of-weaponizable-biotechnology/>.

⁵³ Donald J. Trump, Executive Order 14186 of January 27, 2025, "The Iron Dome for America," *Code of Federal Regulations*, Title 3 (2025), p. 8767, <https://www.federalregister.gov/documents/2025/02/03/2025-02182/the-iron-dome-for-america#page->.

⁵⁴ Hannah D. Dennis, "The Golden Dome (Iron Dome) for America: Overview and Issues for Congressional Consideration," Congressional Research Service (CRS) Insight, No. IN12544 (Washington, D.C.: Congressional Research Service, April 16, 2025), p. 1, https://www.congress.gov/crs_external_products/IN/PDF/IN12544/IN12544.1.pdf.

⁵⁵ Keith B. Payne, "Why Does America Need Golden Dome?," *Information Series*, No. 628 (Fairfax, VA: National Institute Press, June 18, 2025), https://nipp.org/information_series/keith-b-payne-why-does-america-need-golden-dome-no-628-june-18-2025/.

⁵⁶ Christy Lee, "Analysts: American Iron Dome reduces nuclear coercion but drives arms race," *Voice of America*, February 04, 2025), <https://www.voanews.com/a/analysts-american-iron-dome-reduces-nuclear-coercion-but-drives-arms-race/7963461.html>.

When it comes to deterrence, technology has been and will continue to be both a sword and a shield.

Future deterrence strategies and force postures must consider not only the destructive potential of high-tech weapons but also the strategic ambiguity, scientific surprises, and cross-domain threats posed by emerging technologies. As rapid innovation blurs traditional boundaries between nuclear and non-nuclear kinetic, cyber, space, and informational domains, adversaries gain new opportunities to exploit uncertainty, achieve asymmetric advantages, and complicate attribution. Technologies such as artificial intelligence, autonomous systems, hypersonics, quantum capabilities, and nuclear expansion introduce new risks that can outpace existing warning systems, threaten command-and-control structures, challenge political will, and undermine confidence in deterrence stability.

In this environment, integrating advanced technologies into strategic deterrence is crucial. Such integration can boost military strength, improve resilience, and help maintain the ability to anticipate, absorb, and counter emerging threats or follow-on attacks. Effectively using innovative technologies to oppose emerging technologies is likely to become a key principle of future deterrence. Countries that can master, exploit, and coordinate one or the other will be better equipped to defend national interests and protect their homeland in an era of rapidly advancing technology.

Conclusion

Technology is no longer merely a support mechanism for the traditional instruments of national power, the DIME; it has become a form of national power in its own right. It influences every aspect of statecraft, including military dominance, economic performance, diplomatic influence, cyber operations, strategic resilience, and deterrence. Nations that proactively embrace, invest in, and strategically oversee their technological capabilities will define the future global order. In his 2022 National Security Strategy, President Biden admitted the dominant role technology has in America's grand strategy: "Technology is central to today's geopolitical competition and to the future of our national security, economy, and democracy. U.S. and allied leadership in technology and innovation has long underpinned our economic prosperity and military strength. In the next decade, critical and emerging technologies are poised to retool economies, transform militaries, and reshape the world."⁵⁷

Technological leadership acts as a "power amplifier," boosting military strength and driving economic growth through innovation, automation, and data control, while also expanding global influence and diplomatic power, and strengthening national resilience, prestige, and attractiveness. Countries leading in advanced technology hold greater influence by controlling key modern drivers: information, communication, defense, and manufacturing. In the digital world, high-tech dominance provides a strategic advantage, becoming a new form of international power.

⁵⁷ Joseph R. Biden, *National Security Strategy* (Washington, D.C.: The White House, October 2022), p. 32.

Countries possessing advanced technology and the willingness to deploy it will wield greater national power than those that lag behind or lack either one. Technology, as a fundamental instrument of national power, can both unify and augment the DIME framework comprehensively. Nevertheless, technology must also be directed towards advancing national objectives directly, functioning as its own instrument, supported by the DIME, thus evolving the framework to the DIMET.

As the world enters the era of “techno-strategic” power, technology has become a decisive instrument of national power, essential for shaping geopolitical relationships and the global economy. “Winners in the tech race will shape the international order, while losers will sit on the sidelines, unable to ensure their survival, let alone their prosperity.”⁵⁸ As great power competition intensifies, nations must actively harness technology as a strategic power asset—an instrument to wield in its own right. State leaders in innovation will shape the international order, while laggards risk marginalization and dependence. Technological dominance is now the core foundation on which all other tools of national power rely. It influences the pace, authority, and information advantage, transforming the efficacy of diplomacy, the value of economics, and the effectiveness of military potency.⁵⁹ Technology, once a mere element of the DIME framework, now stands as a pillar of national power, marking the era of DIMET, where technological dominance shapes prosperity and preeminence on the global stage.

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⁵⁸ Caitlin Lee, “Winning the Tech Cold War,” RAND Commentary, August 17, 2023, <https://www.rand.org/pubs/commentary/2023/08/winning-the-tech-cold-war.html>.

⁵⁹ Zachary S. Ford, Session 4 Paper Review, Missouri State University, DSS 715 course, October 16, 2025.



ANALYSIS

COMPETING ON THE PERIPHERY: A NEW APPROACH TO THE ARCTIC

Cody Stamm

Introduction

Countries have largely maintained former Soviet General Secretary Mikhail Gorbachev's 1987 vision of the Arctic as "a zone of peace" built on shared development, coordinated research, and restricted military activity.¹ Exacerbated by Russia's 2022 invasion of Ukraine, however, the Arctic has regained strategic importance as countries vie for regional security, resource access, and control over emerging shipping routes.² For Washington, the challenge becomes adapting a historically cooperative framework to a growing competitive domain. While it is not currently—and may never become—a primary operational theater, the Arctic is likely to be a strategic flank in a larger conflagration. It offers avenues along which Russia and the People's Republic of China (PRC) threaten U.S. national security, restrict economic access, and undermine existing rules-based regional and international norms.

Complicating matters further, while the United States has acknowledged the Arctic's rising strategic value, it approaches the region with inherent structural disadvantages. Arctic responsibility spans three geographical combatant commands and numerous federal entities, each having distinct priorities, authorities, and limitations.³ This fragmentation divides operational planning, blurs accountability, and slows critical decision-making at times when it is needed most. In contrast, Russia employs a unified Arctic command while the PRC advances its strategy for the region. Lacking unity and cohesion, the United States hinders its ability to anticipate and shape a rapidly evolving theater.

This study argues that Washington's Arctic strategy reflects a deeper misalignment between U.S. strategic ends and operational means. It proposes that adopting a "shape-and-monitor" approach—a strategy anchored in incremental force restructuring and allied integration—offers Washington a more coherent process for managing risks and sustaining deterrence in the Arctic. It begins with an overview of the Arctic's strategic situation, those

¹ Mikhail Gorbachev's Speech in Murmansk at the Ceremonial Meeting on the Occasion of the Presentation of the Order of Lenin and the Gold Star to the City of Murmansk," *The Asia Dialogue*, https://theasiadialogue.com/wp-content/uploads/2019/11/Gorbachev_speech.pdf; Iona Allan, *Arctic Narratives and Political Values: Arctic States, China and NATO* (Latvia: NATO Strategic Communications Centre of Excellence, 2020), p. 87, https://stratcomcoe.org/pdfs/?file=/publications/download/nato_arctic_study_2020_18-06-2020-2.pdf?zoom=page-fit.

² Kiel Pechko, "Rising Tensions and Shifting Strategies: The Evolving Dynamics of US Grand Strategy in the Arctic," The Arctic Institute, January 7, 2025, <https://www.thearcticinstitute.org/rising-tensions-shifting-strategies-evolving-dynamics-us-grand-strategy-arctic/>.

³ Charlotte Bertrand, "Three ways the US can build a more lethal fighting force in the Arctic," *Atlantic Council*, October 23, 2025, <https://www.atlanticcouncil.org/blogs/new-atlanticist/three-ways-the-us-can-build-a-more-lethal-fighting-force-in-the-arctic/>.



critical conditions and dynamics impacting current and future U.S. national security.⁴ It then introduces and outlines an alternative strategic approach rooted in U.S. national interests and guiding principles. Lastly, it concludes by examining potential risks to the proposed strategy.

The Arctic In Context: Defining the Stakes

Climate contributes significantly to the conditions under which nations fight, and climate change is reshaping the Arctic's physical geography and redefining its strategic environment.⁵ Having warmed three times faster than global averages between 1971 and 2019, the Arctic could experience ice-free seasons within the next few decades.⁶ As sea ice melts, newly exposed water absorbs solar radiation, locking the Arctic into a self-reinforcing warming cycle and altering global incentives for access to and control over its economic potential.⁷ The Northern Sea Route (NSR) and Northwest Passage—once the “Holy Grail of Victorian exploration”—are becoming increasingly traversable, reshaping global trade routes.⁸ Climate and economic changes are transforming the geopolitical landscape as states reposition to secure access to, influence over, and control of emerging resources and routes.⁹ Consequently, Russia and the PRC are maneuvering to shape the Arctic's future, capitalizing on its emerging economic and military advantages.¹⁰ Their maneuvering underscores the urgency for Washington to move from reactive observation to proactive influence.

Rooted in perceived threats of Western encirclement and its desire for renewed great-power status, Russia views the High North as both a territorial shield and an economic lifeline. For Moscow, the Arctic remains a vital historical component of its national identity. In *The Persian*, author David McCloskey's character, reminiscing about his time spent in America, quips that he, “had been shocked—though he knew he should not have been—to find [Americans] entirely unburdened from history. The Americans he knew best possessed

⁴ Steven Heffington, Adam Oler, and David Tretler, *A National Security Strategy Primer* (Washington, D.C.: National Defense University Press, 2019), p. 7.

⁵ Sylvia Jordan and Antonio Salinas, “Melting Frontiers: A Bold Vision for US Strategy in a Warming Arctic,” Modern War Institute at West Point, February 7, 2025, <https://mwi.westpoint.edu/melting-frontiers-a-bold-vision-for-us-strategy-in-a-warming-arctic/>.

⁶ Laura Comay et al., “Changes in the Arctic: Background and Issues for Congress,” November 1, 2025, <https://www.congress.gov/crs-product/R41153>.

⁷ Scott G. Borgerson, “Arctic Meltdown: The Economic and Security Implications of Global Warming,” *Foreign Affairs*, March 2, 2008, <https://www.foreignaffairs.com/articles/arctic-antarctic/2008-03-02/arctic-meltdown>.

⁸ Ibid.

⁹ Michael Albertus, “The Coming Age of Territorial Expansion: ‘Climate Change Will Fuel Contests—and Maybe Wars—for Land and Resources,’” *Foreign Affairs*, March 4, 2025, <https://www.foreignaffairs.com/united-states/climate-change-coming-age-territorial-expansion>.

¹⁰ Heather A. Conley, “The Arctic Spring: Washington is Sleeping Through Changes at the Top of the World,” *Foreign Affairs*, September 24, 2019, <https://www.foreignaffairs.com/articles/commons/2019-09-24/arctic-spring>; Albertus, “The Coming Age of Territorial Expansion.”

a rosy nostalgia about the past and a preposterous hope for the future.”¹¹ While the United States may remain “unburdened from history,” Russia is not. History is integral to its national sovereignty, identity, and independence from Western interference, shaping Moscow’s worldview and strategic culture.¹² Extending back to the pre-1917 era, this historical awareness reinforces Moscow’s enduring perception of the Arctic as both its rightful inheritance and physical defense.¹³

A 2025 report to Congress estimates Russia controls approximately 50% of the Arctic’s “area, coastline, population and probably mineral wealth.”¹⁴ Russia alone accounted for 50-60% of all Arctic investments from 2017-2022, with the remaining 40-50% distributed across the other seven Arctic countries—underpinning the region’s strategic and economic importance to Moscow’s ambitions.¹⁵ Consequently, anticipating climate change’s implications on national security, Moscow is exerting “border control” over a larger portion of the region and protecting what it sees as a “new border.”¹⁶ It is expanding region-specific Intelligence, Surveillance, and Reconnaissance (ISR) capabilities and infrastructure, and modernizing its Arctic air and maritime bases. These efforts ensure Russia’s ability to monitor and, if deemed necessary, physically deny access to adversaries operating within its northern approaches. Its Northern Fleet Joint Strategic Command includes new air defense and permanent basing capabilities, airborne units, and retrofitted ground units designed for sustained operations in the harsh environment.¹⁷ Underscoring Moscow’s effort to institutionalize Arctic operations, the fleet became the country’s fifth military district, unifying its Arctic capabilities.¹⁸ As militarization continues, Moscow’s aim would likely be to secure its sea-based nuclear capabilities and ensure freedom of maneuver in a larger conflict.¹⁹

Economically, as natural resources become more readily available, Russia has pursued international consensus on controlling passage through the Northern Sea Route (NSR). If successful, Moscow could impose economic—and physical—restrictions on who can operate

¹¹ David McCloskey, *The Persian* (New York: W. W. Norton & Company, 2025), p. 45.

¹² LTC Jussi Puustinen, FIN A (CSAG/CCJ5), “A Look into the Origins of Russian Strategic Culture,” Near East South Asia Center for Security Studies, July 11, 2023, p. 1, <https://nesa-center.org/a-look-into-the-origins-of-russian-strategic-culture/>.

¹³ Bouffard et al., *Arctic Narratives and Political Values*, pp. 47-48.

¹⁴ Comay et al., “Changes in the Arctic.”

¹⁵ “Overview of Russia’s Arctic Investments in 2017-2022,” Business Index North - Bin Arctic, September 2024, https://businessindexnorth.com/sites/b/businessindexnorth.com/files/2024/09/overview_of_russias_investments_in_the_arctic.pdf, p. 2.

¹⁶ Mathieu Boulègue, “Russia’s Military Posture in the Arctic: Managing Hard Power in ‘Low Tension’ Environment,” Chatham House: The Royal Institute of International Affairs, June 2019, p. 11, <https://www.chathamhouse.org/2019/06/russias-military-posture-arctic>

¹⁷ Abbie Tingstad et al., “Report on the Arctic Capabilities of the U.S. Armed Forces,” RAND Corporation, November 1, 2023, pp. 25-28, https://www.rand.org/pubs/research_reports/RR1638-1.html.

¹⁸ Malte Humpert, “Russia Elevates Importance of Northern Fleet Upgrading it to Military District Status,” *High News North*, January 13, 2021, <https://www.highnorthnews.com/en/russia-elevates-importance-northern-fleet-upgrading-it-military-district-status>.

¹⁹ Boulègue, “Russia’s Military Posture in the Arctic,” p. 24.

throughout the NSR.²⁰ Though primarily *defensive* in nature, the purpose of the defense is creating what the U.S. Army's Doctrine Publication 3-90 calls "conditions for the *offense* ... aggressively [seeking] ways of attriting and weakening enemy forces *before* close combat begins."²¹ Moscow must not continue to believe that "it can operate unhampered in a potentially contested environment."²² While Russia relies on hard power to secure its Arctic ambitions, the PRC pursues influence mainly through soft power (e.g., economic investment, scientific research, and regional governance)—a complement rapidly redefining the High North.

For its part, the PRC views the Arctic as an open frontier, a space to expand influence opportunistically. As a self-declared "near-Arctic state," Beijing is becoming increasingly confident in effectively reshaping regional and global norms to reinforce its influence. Utilizing a "comprehensive approach," the PRC is exploring gaps in Arctic governance. Politically, it relies on "soft power" mechanisms to influence existing Arctic governments and indigenous populations. Economically, its "Polar Silk Road" could generate "political and strategic influence" through increased interdependences across critical supply nodes. Scientifically, its dual-purpose research capabilities and stations buttress larger military-civil fusion ambitions, potentially strengthening its ability to surge military power should the need arise. Militarily, while China's Arctic capabilities fall well short of Russia's, Washington should no longer ignore the PRC's expanding icebreaker fleet and potential increase in subsurface activities.²³

Most concerning, however, is the deepening collaboration between Russia and the PRC. While not without their differences (e.g., historical mistrust, divergent goals, and asymmetrical cultures), these competitors are increasingly working together to erode Western influence and capabilities. Russia remains the more acute Arctic threat, but when coupled with Beijing's fusion of civilian assets with military capabilities and its economic growth, the partnership presents rare and complex challenges for the West.²⁴ Taken together, these trends signal that the Arctic's previously stable balance of power is tilting toward authoritarianism—highlighting Washington's need to reexamine its regional interests, roles, and responsibilities.

While climate and competition reshape the Arctic, the United States must anchor its regional strategy—regardless of approach—in clearly defined national interests, foremost among which is homeland defense and security. Washington has a constitutional obligation to protect its sovereign territory and population, as well as the defense architecture underpinning both (e.g., NORAD). Although the probability of conflict originating in the

²⁰ Bouffard et al., *Arctic Narratives and Political Values*, pp. 48-49.

²¹ Headquarters, Department of the Army, *ADP 3-90: Offense and Defense* (Washington, DC: Department of the Army, 2019), p. 4-1, https://armypubs.army.mil/epubs/DR_pubs/DR_a/ARN34828-ADP_3-90-000-WEB-1.pdf.

²² Boulègue, "Russia's Military Posture in the Arctic," 32.

²³ Matti Puranen and Sanna Kopra, "China's Arctic Strategy - a Comprehensive Approach in Times of Great Power Rivalry," *Scandinavian Journal of Military Studies*, 2023, pp. 239-253, <https://sjms.nu/articles/196/files/658ab62d3da14.pdf>.

²⁴ Captain Mark Vicik, "Chinese Arctic Expansion: How Beijing Benefits from Moscow's Isolation," *Journal of Advanced Military Studies (JAMS) Special Issue on Arctic Security*, pp. 74-75, <https://doi.org/10.21140/mcu.2025SI004>.

Arctic may be low, a crisis or conflict elsewhere—for example, in Europe or the Indo-Pacific—is likely to spill north. The strategic consequences of such a spillover are too significant to ignore.

Beyond the immediate defensive imperatives, the United States must recognize and appreciate the long-term national security implications stemming from a rapidly warming Arctic. Rising sea levels increase the risk of temporary and permanent coastal flooding, consequently displacing populations, straining infrastructure, and further intensifying domestic political and social animosities. Any discussion of the Arctic, therefore, must incorporate climate change's impact on the region's future security dynamics.

The Arctic's natural resources—estimated to contain 13% of the world's undiscovered oil and 30% of its undiscovered natural gas—further elevate its strategic importance.²⁵ With such a deep well of economic potential, the United States must ensure the region remains accessible while pursuing responsible economic exploration, sustainable infrastructure development (so as not to exacerbate global warming), and continued access to key trade corridors. Arctic access, then, is key not only to preserving U.S. economic resilience but also to preventing adversaries from monopolizing its economic opportunities.

Finally, while a universal consensus is not necessary, a rules-based order emphasizing transparency, cooperative security, and lawful regional access bolsters U.S. security. Anchoring U.S. regional policy in its enduring national interests—homeland defense, stable climate and controlled warming, continued freedom of navigation and open trade, and collaborative, rules-based regional governance—provides the policy framework upon which Washington shapes, rather than reacts to, emerging conditions in the High North.

With seven of the eight Arctic states now NATO allies, the U.S. need not—and should not—approach the evolving region alone. Any sustainable strategy must consider allied threat perceptions, domestic political constraints, and military capabilities. Two allies in particular, Canada and Finland, can prove instrumental to the alliance's emerging Arctic posture. Canada, often inclined to downplay immediate military threats to its Arctic territory, has seen new language emerge in favor of adopting a more comprehensive approach to Arctic defense and security.²⁶ Following former NATO Secretary General Jens Stoltenberg's 2022 visit to Canada, official documents and narratives signaled greater openness to NATO adopting a more explicit role within the region.²⁷ This willingness, combined with its geographic location, makes the Canadian Arctic prime real estate for a NATO-integrated defense ecosystem comprising more advanced sensors, ships, and aircraft.²⁸ Finland's membership bolsters NATO's position, adding its deep Arctic experience and expertise—including advanced ice-capable shipbuilding, proficiency in winter war fighting, and regional

²⁵ Scott G. Borgerson, "The Great Game Moves North: As the Arctic Melts, Countries Vie for Control," *Foreign Affairs*, March 25, 2009, <https://www.foreignaffairs.com/articles/commons/2009-03-25/great-game-moves-north>.

²⁶ Bouffard et al., *Arctic Narratives and Political Values*, pp. 11, 13.

²⁷ *Ibid.*, p. 17.

²⁸ *Ibid.*, p. 12.

technologies—to its collective capabilities.²⁹ While allied perspectives and capabilities vary, they all recognize the evolving regional security challenges and the need to address them proactively and collectively.

The United States faces a critical—and narrowing—window of opportunity to influence the Arctic, secure vital interests, and defend its critical northern frontier.³⁰ The accelerating economic, military, and environmental shifts demand that the United States adopt a more deliberate posture. While Washington's current strategy identifies broad national interests, it fails to explain how it *shapes* the Arctic in line with those interests—reading more like a wish list than a regional strategy.³¹ Implicit within its strategic framework is the assumption that the United States can shape conditions, but its posture and approach remain reactive. Instilling allied cohesion and resilience abroad starts with the United States first creating cohesion at home. The “shape-and-monitor” approach that follows could be an essential first step—not to fix a larger, more systemic issue of whole-of-government fragmentation, but to operationalize the intent already articulated in existing strategic documents.

Shape-and-Monitor: From Reactive to Proactive

The Arctic's evolving dynamics are symptomatic of larger climate and geopolitical trends. As Russia and China continue entrenching militarily, economically, and politically, and although the West has placed “renewed strategic thinking” on the Arctic, Washington remains encumbered by a *reactive* posture.³² While a “monitor-and-respond” approach affords greater flexibility, it relies on reactivity rather than on developing a forward-looking, sustained presence. Such an approach only leaves Washington perpetually behind its primary adversaries, its ends continuing to outpace its ways and means.

In today's strategic environment, the United States faces a unique challenge—revisionist autocracies increasingly collaborating and coordinating to undermine the liberal world order.³³ Competing effectively requires shifting from a reactive strategy to calculated anticipation. Recognizing the changing dynamics, Moscow and Beijing are already taking actionable steps to shape the Arctic's future. Their growing collaboration—though not without its difficulties—is steadily challenging Western influence, further accelerating shifts

²⁹ Ibid., pp. 26-27.

³⁰ Heather A. Conley, Mathieu Boulégué, Sophie Arts, and Kristine Berzina, “Defending America's Northern Border and Its Arctic Approaches Through Cooperation With Allies and Partners,” German Marshall Fund, August 17, 2023, p. 29, <https://www.gmfus.org/news/defending-americas-northern-border-and-its-arctic-approaches-through-cooperation-allies-and>.

³¹ The Biden Administration, “National Strategy for the Arctic Region,” October 2022, <https://bidenwhitehouse.archives.gov/wp-content/uploads/2025/01/NSAR-2022-Implementation-Report-.pdf>.

³² Esther Brimmer, “Changing Geopolitics in the Arctic,” Council on Foreign Relations, July 2023, <https://www.cfr.org/report/changing-geopolitics-arctic-0>.

³³ Peppino DeBiaso, “*The Rise of a New Axis: Great Power Struggle and the Future of Conflict*,” *Information Series*, No. 622, (Fairfax, VA: National Institute Press, April 8, 2025), https://nipp.org/information_series/peppino-debiaso-the-rise-of-a-new-axis-great-power-struggle-and-the-future-of-conflict-no-622-april-8-2025/.

in the balance between access and control.³⁴ Preserving regional and global stability, credibility, and deterrence requires a strategy that *shapes* the environment *before* crises emerge, integrating all tools of national power to influence the Arctic's future conditions.

This study posits such an approach, classifying it as a “shape-and-monitor” strategy. To shape means deliberately and proactively influencing the Arctic environment, cohesive allied posture, and adversary options *before* a crisis or conflict emerges. To shape is to deter. At its core, it focuses on denying adversaries uncontested freedom of action. It seeks to influence emerging competition in the Arctic. Its theory of success rests on four key premises: (1) the Arctic is no longer immune to great-power rivalry; (2) conflict elsewhere will more than likely spill north; (3) adversaries are increasingly using gray zone tactics to degrade Western influence; and (4) allied integration remains a decisive advantage for the West. The following section evaluates how the United States, in concert with its allies, can synchronize its instruments of national power—diplomatic, informational, military, and economic—to translate theory into action, restoring coherence among its strategic ends and operational ways and means. Individually, each instrument exerts a different kind of influence. Collectively, they generate shaping power, allowing Washington to *shape* an evolving Arctic rather than *react* to one.

Diplomatic. Diplomacy is how an actor interacts with another.³⁵ It underpins all other instruments. For the Arctic, Washington's central diplomatic challenge is how best to integrate security-focused dialogue without further undermining regional cooperation. Established by the 1996 Ottawa Declaration, the Arctic Council has served as the region's central intergovernmental body, promoting and facilitating research and cooperation across its eight council members and indigenous communities.³⁶ Once a space to address common Arctic-related concerns, it has stagnated since Russia's invasion of Ukraine in 2022. And while cooperation has gradually restarted, the Arctic Council faces a very difficult geopolitical situation ahead.³⁷ Furthermore, while the council has provided agreements addressing environmental- and governance-related matters, it is incapable of addressing defense- and security-related concerns.³⁸ A proactive approach, then, involves creating an Arctic sub-council among the Western Arctic states and NATO partners. This institutionalizes Western coordination, lending political validity to further initiatives. While critics argue it risks further fragmenting fragile Arctic cooperation and could fuel existing perceptions of regional “blocs,” the Arctic is already bifurcated.

³⁴ Ibid.

³⁵ Heffington, Oler, and Tretler, *A National Security Strategy Primer*, p. 23.

³⁶ “Arctic Council,” Britannica Editors, Encyclopedia Britannica, May 19, 2025, <https://www.britannica.com/topic/Arctic-Council>.

³⁷ Marc Jacobsen and Svein Vigeland Rottem, “The Arctic Council in the Shadow of Geopolitics,” The Arctic Institute, May 12, 2025, <https://www.thearcticinstitute.org/arctic-council-shadow-geopolitics/>.

³⁸ Arctic Council, “Declaration on the Establishment of the Arctic Council,” September 19, 1996, p. 2, <https://oarchive.arctic-council.org/server/api/core/bitstreams/bdc15f51-fb91-4e0d-9037-3e8618e7b98f/content>.

Another option, though no less divisive, would see the United States champion efforts to embed Arctic cooperation within NATO's "High North" security framework.³⁹ This option focuses U.S. efforts on its closest allies, accelerating cooperation and integration. With Finland's and Sweden's accession into NATO, Washington has a unique opportunity to draw upon the Nordic countries' extensive Arctic operational knowledge and capabilities—something upon which it has yet to fully capitalize.

Domestically, the U.S. Senate should once again consider ratifying the United Nations Convention on the Law of the Sea (UNCLOS). While the United States adheres to many of the convention's principles in practice, ratifying UNCLOS bolsters Washington's diplomatic credibility. As of now, it remains "outside looking in as a nonmember to various legal and technical bodies," consequently weakening claims that rules, not force, govern the Arctic.⁴⁰ Washington can lead a stronger Western Arctic coalition, but it must do so in a way that reinforces the very cooperative framework it seeks to defend. Furthermore, ratification bolsters U.S. military advantages, economic opportunities, and diplomatic leadership in the evolving region. UNCLOS codifies maritime passage (to include warships) while strengthening U.S. influence within the maritime domain.⁴¹

Informational. Informational power encompasses a nation's ability to collect, analyze, and transmit information to influence a specific audience, while simultaneously protecting its own information environment.⁴² The informational instrument serves as the link between U.S. capability and willingness—both critical to deterrence. When effectively integrated across all instruments, information power strengthens U.S. credibility by shaping perceptions and exposing an adversary's intentions.⁴³

Currently, adversaries are actively probing legal and informational frameworks (e.g., UNCLOS) to erode Western influence. Using persistent, multi-domain information operations, Russia employs disinformation, diplomatic pressure, and military intimidation to sow distrust and undermine NATO's collective resolve in the Arctic.⁴⁴ Weaving positive (e.g., "China is a partner") and negative (e.g., "Sweden is unsafe") narratives, the PRC uses

³⁹ Lee Mottola, "NATO's Arctic Command: A Case for the Expansion of NATO's Mission in the High North," The Arctic Institute, January 17, 2023, <https://www.thearcticinstitute.org/nato-arctic-command-case-expansion-nato-mission-high-north/>.

⁴⁰ Borgerson, "Arctic Meltdown."

⁴¹ Ensign Lara Malaver, U.S. Navy, "It is Time for the United States to Ratify UNCLOS," U.S. Naval Institute *Proceedings*, Vol. 147, June 2021, <https://www.usni.org/magazines/proceedings/2021/june/it-time-united-states-ratify-unclos>.

⁴² Curtis McGiffin, "DIMET: Shaping the Age of 'Techno-Strategic' Power," *Information Series*, No. 637 (Fairfax, VA: National Institute Press, September 22, 2025), https://nipp.org/information_series/curtis-mcgiffindimet-shaping-the-age-of-techno-strategic-power-no-637-september-22-2025/; MAJ Kevin Piercy, USA, "I Do Not Think It Means What You Think It Means: Information Power and Deterrence," Air University Wright Flyer Paper No. 92, January 2023, https://media.defense.gov/2023/Jan/31/2003153216/-1/-1/0/WF_092_PIERCY_I_DO_NOT_THINK_IT_MEANS.PDF, p. 2.

⁴³ Piercy, "Information Power and Deterrence."

⁴⁴ Vladimir Sazonov et al., "Russia's Information Influence Operations in the Nordic-Baltic Region," NATO Strategic Communications Centre of Excellence, November 25, 2024, <https://stratcomcoe.org/publications/russias-information-influence-operations-in-the-nordic-baltic-region/314>, pp. 13-14, 146-150.

tailored information campaigns targeting Nordic and Baltic states as it continues its drive to “Polar great power” status.⁴⁵

Competing in the information domain requires the United States to adopt a whole-of-government approach—no single agency can signal both capability and willingness. The Department of State can convey authoritative political intent to Arctic allies while countering adversary disinformation and attempts to fracture the Western Arctic coalition. When it comes to collection, the Intelligence Community, through strategic declassification efforts similar to the months leading up to Russia’s 2022 invasion, can expose adversarial influence and bolster the already emerging Western suspicion of Chinese Arctic investments. Furthermore, consistent messaging among the United States and its allies bolsters their political legitimacy and counters Russia’s attempts to fracture the alliance and sow discord. It provides Arctic allies with the necessary framework to reassure their domestic populations and secure support for proposed councils. While consistent messaging is critical, it rests on visible capabilities communicated through a credible presence.

Military. The military serves as a blunt instrument, reinforcing a nation’s diplomacy through an *integrated, persistent, and demonstrable* capacity and capability to deter.⁴⁶ The central challenge, however, is deterring without escalation or overextension. It is not simply about dominating the region. Adversaries must no longer assume they have uncontested freedom to maneuver within the High North. In the proposed “shape-and-monitor” approach, military shaping should unfold in four interconnected and overlapping phases, each designed to reinforce diplomacy while balancing risk and burden sharing.⁴⁷

Phase One—Foundation. This phase focuses on reinvigorating domain awareness and U.S. credibility. Increased domain and situational awareness requires hardened Command, Control, Communications, computers, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) systems, more robust aerial surveillance, dedicated maritime awareness assets and missions (e.g., anti-submarine warfare), and longer-reaching detection and sensing capabilities.⁴⁸ When integrated, these systems create “seabed-to-space” awareness designed

⁴⁵ Viesturs Bērziņš, “Chinese Arctic Narratives: How Chinese Media is Approaching the Nordic-Arctic States,” NATO Strategic Communications Centre of Excellence, October 5, 2022, <https://stratcomcoe.org/publications/chinese-arctic-narratives-how-chinese-media-is-approaching-the-nordic-arctic-states/249>.

⁴⁶ Matthew R. Costlow, “*Deterrence is Integrated in Theory, but not in Practice: The Problem and (Partial) Solution*,” *Information Series*, No. 614 (Fairfax, VA: National Institute Press, February 3, 2025), https://nipp.org/information_series/matthew-r-costlow-deterrence-is-integrated-in-theory-but-not-in-practice-the-problem-and-partial-solution-no-614-february-3-2025/.

⁴⁷ Calls for a force posture adjustment are not new. See, for example, Joseph R. Blume, Nathan L. Golike, Geoffrey R. Latimer, and Michael Stanski, “The Key to Arctic Dominance: Establishing an Arctic-Focused Subordinate Unified Command,” *Joint Force Quarterly* 115 (4th Quarter 2024), pp. 4-14, <https://digitalcommons.ndu.edu/cgi/viewcontent.cgi?article=1132&context=joint-force-quarterly>; Jordan and Salinas, “Melting Frontiers;” and MAJ John F. Soto, “Time for a United States Arctic Command,” United States Marine Corps Command and Staff College, April 3, 2017, <https://apps.dtic.mil/sti/pdfs/AD1176613.pdf>.

⁴⁸ Mathieu Boulegue, Rebecca Pincus, and Madison Lipson, “Protecting the North American Arctic and Beyond: USNORTHCOM’s Role and Place in a Changing Circumpolar Environment,” Foreign Policy Research Institute, November 12, 2025, https://www.fpri.org/wp-content/uploads/2025/11/protecting-the-north-american-arctic_fpri.pdf, p. 5.

to close informational and geographical gaps stemming from the region's complexity.⁴⁹ It aims to deny adversaries informational advantages and reestablish shared understanding across Western allies. By reallocating ISR assets focused explicitly on the Arctic, Washington would not only expand its domain awareness but also reinforce diplomacy and deterrence, signaling renewed credibility and commitment. Although it requires diverting finite resources, early actions would create demonstrable proof to allies of Washington's commitment to building deeper integration. This foundation is necessary to set conditions for deeper integration across the joint force.

Phase Two—Integration. This phase focuses on unifying Arctic operations and commands to improve operational coherence. It repurposes the existing Alaskan Command (ALCOM) and Joint Task Force - Alaska (JTF-AK) into a Joint Task Force - Arctic (JTF-AR), integrating Arctic responsibilities and authorities under a single domain-focused command, thereby improving coordination and accountability across the joint force.⁵⁰ Formalizing functions and authorities, bolstered by rotational deployments from the JTF-AR, would advance persistent deterrence efforts and deepen allied interoperability. Doing so is not without risks, however, including the creation of additional bureaucratic silos and increased resource competition across commands. To address these concerns, annual follow-up reviews would assess progress and effectiveness, helping mitigate bureaucratic friction. Furthermore, while icebreakers do not make or break a nation's strategy, the United States needs to revitalize its stalled Polar Security Cutter (PSC) program.⁵¹ Its recent deal with Finland is an excellent start at leveraging allied operational and industrial advantages.⁵² When combined, these measures create a framework for innovation to follow.

Phase Three—Innovation. Phase Three enhances U.S. capacity by expanding public-private partnerships, turning innovation into operational advantages. By leveraging private industry and commercial innovation, Washington can offset high initial costs while simultaneously improving Arctic deterrence. It should focus on domain-specific R&D efforts (e.g., cold-weather autonomous systems and undersea communications) to enhance domain awareness and force protection in the harsh environment.⁵³ These public-private partnerships will require sustained political support to balance private-sector innovation speeds with public-sector security. This phase provides greater flexibility to scale forces, command, and strategy as the Arctic evolves.

⁴⁹ Ibid., Dr. Paolo Braca, "Multi-Domain Situational Awareness: Seabed-to-Space Situational Awareness (S3A)," NATO Science & Technology Organization Centre for Maritime Research & Experimentation, March 29, 2023, <https://ieeaeess.org/presentation/lecture/multi-domain-situational-awareness#resources>.

⁵⁰ "Our Story," U.S. Northern Command, <https://www.northcom.mil/About/>.

⁵¹ Ronald O'Rourke, "Coast Guard Polar Security Cutter (PSC) and Arctic Security Cutter (ASC) Icebreaker Programs: Background and Issues for Congress," June 30, 2025, <https://www.congress.gov/crs-product/RL34391>.

⁵² Malte Humpert, "U.S. Coast Guard to Receive 11 New Icebreakers Under Landmark Finland Deal," *High News North*, October 13, 2025, <https://www.highnorthnews.com/en/us-coast-guard-receive-11-new-icebreakers-under-landmark-finland-deal>.

⁵³ Boulegue, Pincus, and Lipson, "Protecting the North American Arctic and Beyond," p. 4.

Phase Four—Consolidation. Phase Four finalizes structural reform—evaluating and, if the analysis confirms, creating an Arctic Combatant Command (USARCCOM). It must address political costs inherent in such structural changes, focusing on whether the structure improves strategic coherence. The objective is not a command in and of itself, but rather to consolidate Washington’s shaping power, streamline integration, and anchor its Arctic presence. Regardless of the path chosen (JTF-AR or USARCCOM), it requires economic support to maintain long-term viability.

Economic. The economic instrument leverages U.S. wealth and economic vitality to influence another nation.⁵⁴ Economic shaping aims to counter the PRC’s “Polar Silk Road,” or Washington risks giving Beijing the leverage it seeks over regional infrastructure. It includes continued sanctions and export controls that limit key technologies supporting the PRC’s dual-purpose research. It aims to provide economic aid to key regional allies to support infrastructure development that advances subordinate objectives, such as domain awareness (e.g., Pituffik Space Base in Greenland). It balances fiscal incentives (e.g., tax cuts) to unlock greater private-sector interest in the Arctic, leveraging the sector’s innovation and technical expertise. These modernization efforts demonstrate tangible commitment and, when combined with consistent messaging, reinforce the image of the United States as a long-term, reliable partner.

This proposed approach is not about dominance. Instead, its aim is proactivity, giving the United States an integrated, phased, and measured approach to begin *shaping* the region. While reinforcing strategic cooperation in burden-sharing and deterrence, it does not pursue cooperation as an end in itself. Pursuing cooperation as an end risks compromising any U.S. position of advantage. The approach seeks to convert cooperation into competitive advantages, preventing adversaries from redefining the rules of the Arctic. It rests on five key assumptions: allied cohesion, adversary restraint, sustained political and bureaucratic alignment, stable domestic support, and incremental reform.

- **Allied Cohesion.** A core group of Arctic—and NATO—allies is *willing* and *able* to expand Arctic cooperation beyond climate governance to include security coordination, burden-sharing, and domain awareness initiatives. It likely requires sustained U.S. leadership, even if the resulting coalition remains asymmetrical.
- **Adversary Restraint.** Russia and the PRC are unlikely to initiate direct armed conflict in the Arctic. They will, however, continue their close collaboration to exploit governance gaps through legal, informational, and economic gray-zone activities. The Western alliance must therefore evolve from reactivity to proactivity.
- **Sustained Political and Bureaucratic Alignment.** Long-term Arctic investment requires sustained interagency and political coordination to maintain presence, posture, and strategic coordination. Through a dedicated Arctic combatant command, DoD can unify military capabilities, while agencies such as the State

⁵⁴ D. Robert Worley, *Orchestrating the instruments of power: A critical examination of the U.S. national security system* (Washington, DC: Johns Hopkins University, 2016), p. 281.

Department, amplify U.S. resolve at Arctic security forums alongside its Western allies.

- **Domestic Support.** Garnering domestic support, and thus congressional backing, requires framing Arctic policy around homeland defense, economic resilience, and alliance credibility.
- **Incremental Reform.** Provided executive leaders prioritize intra-governmental alignment and accountability, Washington can craft a coherent Arctic policy through a phased strategy.

Should these assumptions hold, success is indicated across three categories of key performance indicators: short-term (1-3 years), mid-term (3-7 years), and long-term (7+ years).

- **Short-Term Indicators.** Expanded ISR bubble over the Arctic, improved integration of allied ISR reports, and consistent public messaging reinforcing burden-sharing.
- **Mid-Term Indicators.** Formally expanding JTF-AK and ALCOM into the Joint Task Force - Arctic (JTF-A), measurable improvement in joint and combined Arctic interoperability, and enhanced security-focused multilateral forums.
- **Long-Term Indicators.** Sustained U.S. freedom of navigation through contested corridors; reduced gray-zone activities from adversaries in allied exclusion zones; enhanced strategic alignment among Arctic allies; and forward-looking strategic development, infrastructure access, and crisis response.

Strategy is not without risk, and deterrence is not without uncertainty.⁵⁵ The proposed approach accepts uncertainty as a constant and builds in flexibility as conditions evolve. In general, risks are *external* (i.e., adversaries and allies) or *internal* (i.e., resource shortfalls and bureaucratic infighting). Addressing both requires continual assessment, coordinated mitigation strategies, and an accurate picture of the evolving domain.

Externally, the most significant risks stem from misperception, escalation, and differences in allied participation. Increased Western focus—strategically and materially—risks reinforcing Russia’s perception of Western encirclement and the PRC’s perception of U.S. hegemony. Furthermore, it could deepen the burgeoning cooperation between Russia and the PRC, potentially leading to a stronger counter-balancing coalition. In terms of its allies, Washington should consider partners’ domestic contexts when pushing for increased contributions and assessing hesitations. Whether from adversaries or allies, managing external risks requires discipline, strategic, and consistent messaging.

Internally, the most persistent risks stem from continued resource shortfalls and bureaucratic infighting. The lack of PSC modernization, NORAD shortfalls, and capability gaps (e.g., search and rescue, ISR) mean a lack of U.S. presence, potential loss of maritime

⁵⁵ Keith B. Payne, “Deterrence is Not Rocket Science: It is More Difficult,” *Information Series*, No. 527 (Fairfax, VA: National Institute Press, July 6, 2022), https://nipp.org/information_series/keith-b-payne-deterrence-is-not-rocket-science-it-is-more-difficult-no-527-july-6-2022/.

access, and a degradation of situational awareness. Bureaucratic infighting and political divisions are equally problematic, not only diluting the proposed command restructuring but also perpetuating the strategic fragmentation this proposal seeks to address. Addressing internal risks will require sustainable funding commitments and reframing Arctic investment as plainly integral to homeland defense and economic security.

Conclusion

The only certainties in strategy are its financial, organizational, domestic, and political costs. In today's Arctic, however, the context is equally clear. Russia continues deliberately militarizing the region while the PRC develops its economic—and increasingly, its military—presence under the auspices of benign research. Dr. Charlotte Hulme argues that the United States should keep its focus on the main theater of competition, the Indo-Pacific, and remember that “the Arctic is a peripheral theater to that competition.”⁵⁶ While the United States may not win the next war on the periphery, it can certainly lose it. The Arctic will not be immune to the next conflict and it will be too late to shape the environment after the fact. The strategic approach proposed here does not seek regional dominance. It seeks to deny adversaries uncontested access and ensure the United States maintains a measured, integrated, and forward-focused posture within a rapidly evolving domain. It is not a silver bullet, but it is a starting point from which U.S. interests and alliances may best be served.

Cody Stamm is a former Active Duty Army Officer. He is currently a doctoral student at Missouri State University's School of Defense and Strategic Studies.

⁵⁶ Charlotte Hulme, PhD, “The Arctic as a Periphery in U.S.-China Competition,” *Journal of Advanced Military Studies (JAMS) Special Issue on Arctic Security*, p. 63, <https://doi.org/10.21140/mcu.2025SI003>.



INTERVIEWS

This section of the *Journal* features an interview with Ambassador Henry Cooper, former Director of the Strategic Defense Initiative Organization. The subject of the interview, conducted by Michaela Dodge, is missile defense and the prospects and necessity of the Trump Administration's Golden Dome program.

An Interview with Ambassador Henry Cooper, former Director of the Strategic Defense Initiative Organization (SDIO) on Missile Defense Trends

Q. What are some consistent obstacles you see in implementation of a comprehensive missile defense system?

A. Politics that led to the Anti-Ballistic Missile Treaty in the President Richard Nixon-Secretary of State/National Security Advisor Henry Kissinger era biased Research & Development against developing all but fixed ground-based defenses against Intercontinental-Range Ballistic Missiles (ICBMs) and Submarine Launched Ballistic Missiles (SLBMs). This bias still exists.

And also, such politics ruled out mobile or deceptively based ground-based defenses to protect the Minuteman III system even though it was the least expensive modernization option in the late 1970s. That led to a much more expensive Minuteman III Upgrade and ultimately a silo-stuffed MX Peacekeeper ICBM (rendering it vulnerable to attack by accurate Soviet ICBMs) that we traded away in arms control while retaining the vulnerable Minuteman III ICBMs to this day.

Especially enduring is a major arms control bias against space-based defenses, the least expensive, most effective basing mode. A related obstacle are exaggerated cost estimates associated with the continuing biases against space.

Q. In your experience, what are most successful ways to counter these obstacles?

A. An effective way to counter these obstacles would be to have first, an advocate willing to put his reputation on the line and a technically competent supporting team. Second, one would need a receptive President and Secretary of Defense like Ronald Reagan and Caspar Wienberger, and a willing Secretary of State like George Shultz. Third, a few, but effective, members of Congress willing to explicitly support building truly effective defenses rather than just supporting political constituent objectives.

Q. The administration is arguing that a comprehensive layered missile defense system will be implemented by 2028. Under what conditions is this timeframe achievable and how likely is it that these conditions will be present?



A. The only way to meet this timeline is with a limited deployment of a modern Brilliant Pebbles space-based interceptor system coupled with expanded sea- and ground-based kinetic kill interceptors...e.g. land- and sea-based Aegis ballistic missile defense (BMD) and Theater High Altitude Area Defense (THAAD) systems.

I believe this can be accomplished within the Trump Presidency for less than half of the reportedly planned funding for this period. The rest of the funding should be dedicated to developing a Space-Based Laser system, which I do not believe can be done within the Trump Presidency, but is the best long-term possibility.

Q. Which of the technological developments regarding missile defense has surprised you most since you left as the head of the Strategic Defense Initiative Organization?

A. I have not been “surprised.” In my view, these developments should have been expected because of perseverance of strong congressional biases that led President Clinton’s Secretary of Defense Les Aspin to “Take the stars out of Star Wars,” and biased everything toward investing in the most expensive, least effective BMD systems: land-based homeland defenses.

Thanks to Representative Jack Kemp and The Heritage Foundation, a number of informed technologists and political supporters advocated for the Global Protection Against Limited Strikes concept I had originated in the 1990s. At least the Aegis systems proceeded as a global theater missile defense system with inherent long-range BMD potential, which was fully demonstrated during the George W. Bush Administration when Aegis shot down a dying satellite during the “Operation Burnt Frost” in 2008.

But even though President G. W. Bush withdrew from the Anti-Ballistic Missile Treaty in 2002, his administration did nothing to exploit fully that inherent capability. Thankfully, today Aegis Ashore sites are protecting Hawaii, some islands in the Pacific, and European allies (there is a site in Poland and Romania each), and of course wherever Aegis cruisers and destroyers are located. I will never understand why Secretary of Defense Donald Rumsfeld did not fully exploit what we knew how to do...I met with him at Heritage and had a positive conversation at least for keeping Aegis BMD going ... and I think Keith Payne, then Deputy Assistant Secretary of Defense for Forces Policy, played an important role in keeping Aegis going, but the combined efforts of a number of friends were unsuccessful in then making Aegis all it could be, let alone reviving the Brilliant Pebbles concept. Politics beyond my understanding.

Q. What fundamentals remained the same?

A. Little has changed regarding opposition to space-based interceptors, especially associated with exaggerated cost estimates and the usual opposition from the Union of Concerned Scientists, still intertwined with space arms control issues.

If we could get Elon Musk engaged, he could make it all happen out of his hip pocket. He has already demonstrated most of the needed technology in becoming the world’s richest man. We have the technology and expertise...if we only could get the right leadership.

And we already have Aegis BMD at sea and on land ... we just have to exploit that capability. Frankly, the main problem will continue to be politics.

Q. In your opinion, how will evolve the role of missile defense given Russia's aggression and China's rapid nuclear modernization?

A. I cannot say...it is all political and depends on U.S. political leadership. If President Trump really wants it, a lot can be accomplished on his watch that can ultimately lead to results on his watch and sound plans and programs for the future. I wish he would put Elon Musk in charge of making it happen.

Q. How do unmanned systems fit in the missile defense puzzle?

A. That is a bit beyond my expertise, but if I were a young man, I would be trying to wrap my brain around the Artificial Intelligence world. I would love to rub the noses of missile defense opposition in a Star Wars world.

* * * * *



PROCEEDINGS

IMPLICATIONS OF THE MIDDLE EAST CONFLICT ON DETERRENCE AND NONPROLIFERATION

The remarks below were delivered at a symposium on “Implications of the Middle East Conflict on Deterrence and Nonproliferation” hosted by the National Institute for Public Policy on July 22, 2025. The symposium examined the strategic, geo-political, operational, and proliferation impacts of the recent “12-day War” between Iran and Israel and the deterrence implications of the U.S. military strikes on Iran’s nuclear facilities.

David J. Trachtenberg (moderator)

David J. Trachtenberg is Vice President of the National Institute for Public Policy and previously served as Deputy Under Secretary of Defense for Policy.

Israel’s attack on Iran’s nuclear enterprise—and the supporting U.S. strikes on Fordow, Natanz, and Isfahan—have changed the Middle East and overarching strategic dynamic in significant ways:

- From a deterrence perspective, the United States has demonstrated that actions have consequences by its seriousness, consistent with U.S. policy over multiple administrations, in denying the Iranian regime access to nuclear weapons. It also once again proved the value of missile defenses in not only protecting citizens against enemy missile attack but creating additional opportunities for restraint, evaluation of the situation, and de-escalation of crises.
- From an extended deterrence and assurance perspective, *Operation Midnight Hammer* has arguably strengthened the credibility of the American commitment to the security of friends and allies by demonstrating that America’s words of support and “ironclad” assurances to allies and strategic partners will be backed with actions.
- From a military/operational perspective, the U.S. strikes highlighted the value of having capabilities that can hold at risk an adversary’s hard and deeply buried targets, assets which, it can be inferred, the adversary holds in high value. Why bury an asset deep underground unless you consider it of such high value that it must be protected against destruction? Knowing what an adversary values most and having the ability to hold those targets at risk is key to tailored deterrence.
- From a proliferation perspective, Israel’s action has been called one of the most significant counterproliferation acts in recent history perhaps dissuading nuclear weapon state wannabees and other regional powers from contemplating the acquisition of their own nuclear weapons.
- From a geo-strategic perspective, the so-called “12-day war” has arguably exposed the fragility of the Iranian regime and may yet provide the impetus for heightened



domestic unrest, reduced Iranian support to terrorist organizations, and possibly even the beginning of the end for the Iranian clerical regime.

The U.S. military action has also once again raised the issues of the legality of “preemptive” versus “preventive” strikes, the appropriate balance of war powers between the executive and legislative branches, and the applicability of Just War theory to this particular conflict. All of these issues deserve consideration in weighing the effects and implications of the Israeli and American military actions.

Importantly, it is critical to understand what lessons are being drawn by U.S. friends and allies, as well as by U.S. adversaries. Certainly, China, Russia, and North Korea— notwithstanding their public condemnations of the Israeli and American military actions— are taking stock of the impact of the strikes on their “Axis of Authoritarians” and their willingness, desire, and capabilities to confront the United States or U.S. allies militarily.

In my view, it is difficult to overestimate the importance of these issues for deterrence and for regional and global stability. With this as background and hopefully useful context, we are fortunate to have a great lineup of experts on our panel today.

Keith B. Payne

Keith B. Payne is President of the National Institute for Public Policy and previously served as Deputy Assistant Secretary of Defense for Forces Policy.

Since 1976, no Republican or Democratic administration has deployed missile defenses to reduce U.S. homeland vulnerability to Russian or Chinese strategic missiles.

Signaling a new initiative, President Trump’s January 27 Executive Order, entitled *The Iron Dome for America*, calls for a U.S. missile defense system to protect U.S. citizens, territory, infrastructure, and military forces against all opponents. It also calls for the examination of cooperation with allies to protect their territories, populations and military forces. The Trump Administration has given the label “Golden Dome” to a new homeland defense system that moves progressively toward these new defensive goals.

There are several lessons from the Twelve-Day War regarding the likely value of missile defenses. There is considerable difference between defending against intercontinental missiles armed with nuclear weapons and defending against shorter range missiles that are conventionally armed. Nevertheless, lessons from the war can apply broadly.

During the war, Israel’s layered missile defenses reportedly intercepted some 90 percent of the 500-550 missiles Iran launched at Israel. Apparently 36 of the Iranian missiles that penetrated Israeli defenses detonated in population centers, killing 28 persons, inflicting thousands of injuries, and displacing over 13,000 Israelis.

While Iran had pursued diverse offensive missile systems for decades, Israel focused on fielding multiple layers of missile defense. The effectiveness of Israel’s layered defenses

demonstrates their potential value for the deterrence of aggression by decisively denying aggressors the expectation that their missiles will be of reliable military or coercive effect.

For example, Russia, China and North Korea appear to anticipate that limited missile threats to the United States will enable them to coerce Washington away from coming to the aid of U.S. allies—thereby enabling their expansionist plans against U.S. allies. Layered U.S. missile defenses could usefully deny opponents' confidence in such coercive threats and help restore the effectiveness of U.S. extended deterrence for allies; layered defenses could also undercut enemy confidence in the potential military effects of even large-scale nuclear attacks—thereby helping to deter such attacks.

The war also demonstrated the unparalleled value of defenses in the event deterrence fails. The up to 470 Iranian missiles that were intercepted over Israel certainly would have inflicted thousands of additional casualties and billions of dollars in additional civilian and military destruction.

There are, of course, considerable differences in protecting against Iran's hundreds of conventionally armed missiles and defending against thousands of nuclear warheads on intercontinental missiles. Even Israel's remarkably successful 90 percent defensive success rate could lead to intolerable destruction if an attack against the United States involved thousands of Russian and Chinese nuclear warheads.

Critics of Golden Dome seem to emphasize only this massive attack scenario to cast doubt on the potential value of missile defense. However, it is only one of many possible nuclear attack scenarios confronting Washington, and perhaps the most likely to be deterred by the U.S. potential to defeat adversaries' offensive military goals via defenses, and respond with a massive nuclear reply. In other very plausible conflict scenarios, missile defense protection of society and infrastructure could prove extremely valuable in limiting damage.

For example, if deterrence fails to prevent Putin's coercive threats of limited nuclear attack, layered defenses could greatly reduce U.S. civilian casualties and damage to infrastructure and society.

The war also readily demonstrated that a requirement that missile defenses be "cost effective at the margin," is an absurd standard. It mandates that defensive interceptors must not cost more to produce and deploy than the offensive missiles to be intercepted. However, the likelihood that Iranian missiles cost considerably less than the Israeli interceptors that defended against them was hardly the priority concern for Israel as its missile defenses prevented the destruction of hundreds of civilian and military targets. A more helpful comparison is of the cost and effectiveness of alternative approaches to destroying enemy missile capabilities in different scenarios. Space-basing may be a winner in this comparison.

In addition, in the absence of Israel's layered defenses, Israel would have been compelled to engage in much more expansive offensive operations against Iran to destroy Iranian missiles, launchers, and storage sites on the ground prior to their launch. The effectiveness of Israel's layered missile defenses was necessary to enable a critical limit on Israel's escalation of the war.

Finally, the Twelve-Day War demonstrated conclusively the importance of readily available interceptor quantities. The multiple waves of Iranian missile attacks apparently

stressed the available inventory of U.S. interceptors, particularly had they been needed elsewhere simultaneously. Given Iran's impressive rate of missile production, the competition between offensive missiles and available interceptors could have been disastrous for Israel, given the limited production rate of interceptors in Israel and the United States. This is an important lesson for the defense of the United States and allies. For example, the total number of deployed U.S. interceptor launchers for homeland defense now stands at 44—an absurdly low level of capability given the missile threats now facing the United States.

In short, the production and fielding of missile defense capabilities must be shaped by the number and character of the missile threats to be deterred or defeated. That is a fundamental lesson of the Twelve-Day War.

In conclusion, continuing to abide by old deterrence notions of mutual assured destruction vis-à-vis Russia and China is now sheer idiocy. The success of layered missile defenses in the Twelve-Day war illustrates their potential effectiveness for denying the coercive effects of Russian, Chinese, and North Korean limited offensive missile threats, and helping to undercut the potential military effects of even large-scale nuclear attacks—thereby helping to deter such strategies. The Twelve-Day War also demonstrated that: 1) layered missile defenses can contribute critically to saving lives and limiting escalation; 2) layered missile defenses can be a necessary complement to offensive air operations to destroy enemy missile capabilities; 3) “cost-effective at the margin” must not be a decisive criterion for fielding missile defense; and finally, 4) the United States and allies must move urgently to produce missile defense capabilities in quantities sufficient for multiple, and possibly simultaneous, great power missile attacks.

My bottom-line today is that missile defenses cannot replace nuclear deterrence, but they can contribute to deterrence, help place a limit on escalation, and help uniquely to limit damage in some contingencies in the event deterrence fails. There should be no going back.

Ilan Berman

Ilan Berman is Senior Vice President of the American Foreign Policy Council.

To truly understand the context of Israel's June 2025 campaign against the Iranian nuclear program, it is necessary to see it as the culmination of two trends.

The first is the twenty year-plus “shadow war” that had been waged between the Islamic Republic and the Jewish state. The defining feature of this conflict was that the hostilities were real but indirect – exchanged via proxies, and not from the territory of one to the other. This asymmetric contest lasted for years, but we have recently witnessed a pronounced shift in this dynamic. The change began in 2024, with Iran's direct ballistic missile attacks on Israel, first in April and then again in October. Israel responded to the April 2024 attack with a limited strike, one intended simply to signal to the Iranian leadership that it possessed both the capability and the will to retaliate in devastating fashion. That message, however, was

not sufficiently absorbed by the Iranian regime. As a result, Israel's subsequent retaliatory strike on Iran, in October 2024, was more forceful, destroying the totality of the regime's air defense architecture. "Operation Rising Lion," as the June 2025 campaign against Iran's nuclear facilities was officially dubbed, was the culmination of this escalation, with Israel seeking to exploit the opening created by the recent elimination of Iranian air defenses to strike a significant blow to both nuclear development and to the country's military leadership.

The second trend encapsulated by the June 2025 offensive was Israel's long overdue response to Iran's long-running effort to erode Israeli deterrence and Israeli security through the use of proxy groups. That Iranian effort had come to a head on October 7, 2023, when the terrorist group Hamas carried out a brutal series of coordinated attacks against communities in the south of Israel, resulting in 1,200 Israelis dead and over 250 kidnapped.

The events of October 7th represented a truly multi-domain failure.

Politically, it highlighted the bankruptcy of Israel's approach to the Palestinians, which had become a "management" strategy in recent years, as Israeli officials focused on other priorities (such as engaging with the Arab countries of the Persian Gulf). Notably, Israel's approach to the Palestinians was predicated upon two erroneous assumptions. The first was that it was capable of mitigating threats emanating from the Gaza Strip as a result of superior surveillance and electronic warfare capabilities. The second was that, over time, Israeli economic prosperity and dynamism would have a "trickle down" effect and breed moderation on the part of the Palestinians, and that Hamas – in power in the Gaza Strip since 2007 – would, over time, transition from an overwhelmingly ideological actor into a more pragmatic one.

In the intelligence domain, the events of October 7th also saw a breakdown in the country's famously robust capabilities, with responsible agencies failing to predict the attacks or identify key early warning indicators. Militarily, we witnessed a breakdown in the military chain of command on October 7th itself; the Israel Defense Forces did not deploy to targeted communities for the better part of a working day, leaving Israeli citizens to fend for themselves, with tragic results.

October 7th was also very much a failure of deterrence. The Iranian regime had spent a generation building up what has come to be known as a "ring of fire" around Israel. It did so by supporting substate actors, such as Hezbollah in Lebanon, Hamas in the Gaza Strip, and others, to wage a war of attrition against the Jewish state. Over time, this asymmetric strategy led to an erosion of Israeli deterrence, as the country failed to significantly target these groups and their existence became a fact of life for Israeli civilians. The effect was to impose significant constraints on Israeli security options and national security calculations.

What we've seen since October 7th, then, has been a systematic Israeli effort to dismantle the "ring of fire." This is true not just in Gaza, where Israel continues to carry out its military operation against Hamas. It also encompasses last fall's aerial campaign against Hezbollah in the south of Lebanon, which witnessed a significant attrition of the movement's military cadres and the elimination of most of its prodigious arsenal of short- and medium-range rockets. In parallel, we also witnessed, in December of last year, the collapse of another

Iranian proxy, the regime of Bashar al-Assad in Syria. While this was not a consequence of Israeli action, it was nonetheless a significant development in the context of Israeli security. The culmination of all this was Israel's decision to act decisively to target Iran's nuclear capability.

"Operation Rising Lion" was a massive success, from an Israeli perspective – one that has successfully re-established Israeli deterrence. The objective now is for the country to solidify the resulting geopolitical and security gains. This should include a further expansion of the "Abraham Accords," as the wave of normalization agreements midwived by the Trump administration during its first term in office are known. It requires a further attrition of Iranian proxies, such as Yemen's Houthis. And it lays the groundwork for a broader security architecture in the Middle East – something that was discussed by the Trump administration during its first term in office, but has made little headway since.

All of this, however, is predicated on other variables. In the context of the U.S.-Israeli "special relationship," the most important factor is what happens next in the Gaza Strip. Some sort of resolution to the Gaza campaign, which is now entering its twenty-second month, is a prerequisite to progress on these other fronts.

It's also useful to remember that Iran also gets a vote. Already, we see the Iranian regime acting in some significant, albeit predictable, ways.

First, we are witnessing signs that Iran is accelerating succession planning for a very logical reason. Iran's Supreme leader, Ali Khamenei, is 86 years old, infirm, and suffering from a range of ailments. However, he has studiously avoided appointing a successor. Instead, he has tried to manage and tried to navigate the complicated web of Iranian domestic politics by playing one faction off against the other. That is not a sustainable strategy any longer. The Iranian regime understands that it needs to project the appearance of permanence, and that requires a level of succession planning that we haven't seen so far.

Second, expect a further expansion in the power of the Islamic Revolutionary Guard Corps (IRGC). The IRGC is already very much a state within a state. By some estimates, it controls a third or more of the national economy of Iran, it is the custodian of the regime's strategic programs, and it has been steadily ascending in national prominence over the past decade. But in this conflict, we saw decision-making on the part of the IRGC that was wholly independent of Iran's civilian clerical leadership, and that may be a portent of things to come. We are beginning to move in a direction in which Iran is not, strictly speaking, a purely religiously based regime. Rather, while it may still be driven by religious imperatives, the IRGC is emerging as an independent stakeholder and actor.

Finally, we are now witnessing an effort by the Iranian regime to solidify or "harden" its rule. Just in the last month, we've seen 1,500 or more arrests of ordinary Iranian citizens, based upon specious claims that they were collaborating with Israel or with regime opposition forces. The goal here is, very transparently, to consolidate power. Israel's military campaign, and the American augmentation of it, has exposed some deep fissures within the Islamic Republic. What we will see in the immediate future is a regime working overtime to eliminate any sign, either to its domestic opposition or to the outside world, that it is vulnerable.



PROCEEDINGS

A NEW STRATEGIC REVIEW FOR A NEW AGE: 2025

The remarks below were delivered at a symposium on “A New Strategic Review for a New Age: 2025” hosted by the National Institute for Public Policy on August 26, 2025. The symposium highlighted a new National Institute study that examined how the United States should adapt its deterrence policies and forces to meet the looming threats posed by adversaries seeking to overturn the existing global order.

Keith B. Payne

Keith B. Payne is President of the National Institute for Public Policy and previously served as Deputy Assistant Secretary of Defense for Forces Policy.

Thank you Dave, and thanks to all who have joined us today for another of National Institute’s online seminars.

Dave Trachtenberg typically moderates these seminars, and does a great job of it. I will host today’s seminar because Dave is a speaker, and it is too much to ask to simultaneously serve on the panel and moderate.

I will offer a few opening remarks and then we will hear from today’s panel of speakers in alphabetical order.

- Frank C. Miller
- ADM Charles Richard
- Tom Scheber
- Mark Schneider, and
- David Trachtenberg

I would like to start by noting that, for decades, every new Presidential Administration has sought to put its mark on U.S. nuclear deterrence policies and capabilities. New Administrations like to give new names to their deterrence policies, but continuity is the real hallmark of U.S. nuclear deterrence policy. Most recently, the Biden Administration gave us “integrated deterrence,” which in fact, introduced nothing truly new beyond the name.

In anticipation of a new Administration taking office in 2025, my colleagues and I began working in late 2024 on a strategic review.

The results of this study were published last month in a report entitled, *A New Strategic Review for a New Age*. The goal of this study is to *help inform the New Administration and Congress* with regard to the looming nuclear threat environment and U.S. options for sustaining nuclear deterrence.

Contributors to this study effort included:

- General Kevin P. Chilton, USAF (Ret.)
- Michaela Dodge
- Robert Joseph
- Mitch Kugler
- Frank C. Miller



- ADM Charles Richard
- Thomas Scheber
- Mark B. Schneider, and
- David J. Trachtenberg

I would like to thank each of these outstanding experts for their contributions to this study.

I will take just a few minutes to provide a 50,00-foot overview of the study's main points, after which we will hear more from our great panel of speakers.

We are fortunate today to have several members of this study team here to discuss the report.

The starting point for this study is the reality that the contemporary U.S. plan for nuclear force modernization and the New START Treaty was established at a time when American officials generally believed that U.S. relations with Russia and China were relatively benign and would *improve further*. They also believed that nuclear weapons and deterrence were of greatly diminishing value. That deeply mistaken backdrop was the context for the existing U.S. nuclear modernization program.

History has instead given us a nuclear threat environment that is much worse than was expected in 2010. The question before us is whether and how the Trump Administration will now adjust the current nuclear modernization program for the reality of an unexpectedly dangerous threat environment.

Washington essentially now has three options:

1. It can lower its current definition of what is necessary for deterrence and happily announce that the current modernization program is *adequate or much more than is needed*. This is the “less is enough” approach preferred by many (I call this the “Minimum Deterrence” school solution).

Or,

2. Washington can maintain its long-standing definition of adequacy and hope against hope that deterrence simply is not tested while we await the replacement systems coming online. This is the “do-nothing new” path preferred by many.

Or,

3. Washington can move forward urgently to strengthen the U.S. deterrence position. This is the “do more now” approach suggested by the 2023 Strategic Posture Commission. (I call this the Herman Kahn school solution).

Our recently released study concludes that this third option is the *most prudent given* Chinese, Russian and North Korean goals and posturing over the past decade. As Winston Churchill said, “occasionally, you have to take the enemy into account.”

Unfortunately, given the past four decades of deep U.S. strategic and non-strategic force reductions, and the atrophying of the U.S. nuclear infrastructure, the United States is limited

in its near-term capacity to strengthen its nuclear force posture by the number of available strategic bombers, missiles and warheads.

Today, the United States reportedly has ~1,660 deployed strategic nuclear weapons. With this level of capability, even with the planned U.S. force replacement program, the United States likely cannot fully hold at risk Russian and Chinese targets related to deterrence, particularly given Beijing's new nuclear force expansion and construction of underground facilities.

Nuclear force upload, which Mark Schneider will discuss in greater detail, is the timely, low-cost option for strengthening deterrence in the near term. In fact, nuclear upload is likely the only way America can adequately enhance the strategic nuclear force size and flexibility needed to tailor deterrence in the near term.

The entire U.S. strategic nuclear triad could be uploaded before the first element of the planned modernization program becomes operational. *Upload is not a substitute for the modernization program* as the existing Triad is aging out rapidly, but it may be critical for deterrence in the near term.

Upload, even under the limits of New START, could provide ~2,200 warheads. If not constrained by New START, the U.S. could have a deployed strategic ballistic missile force of ~2,626 warheads—depending upon decisions related to necessary missile range and the required number of single warhead missiles. Additionally, bomber weapons could be somewhat increased via uploading.

The cost of upload would likely be quite modest. An August 2020 report of the Congressional Budget Office concluded that: 1) expanding nuclear forces to the Moscow Treaty limit (2,200 warheads) “would not increase the Department of Defense’s (DoD’s) costs relative to its current plans....”; and 2) “Increasing warhead loadings to reach the START II limits [3,500 warheads] would incur about \$100 million in onetime costs for DoD.”

In sum, nuclear weapons upload of legacy and eventually replacement forces is a near-term option. To do otherwise will be to risk that the planned nuclear modernization program will be too slow and too limited for confident deterrence in a rapidly worsening threat environment.

There are several actions the Congress should take promptly with respect to the upload of nuclear weapons. Dave Trachtenberg will discuss these in more detail shortly.

What about arms control in this context? Some former U.S. officials continue to claim that arms control can solve or help to solve the current threat challenges. This is no surprise; Americans typically want to solve nuclear threat problems via arms control.

Yet, as Dave Trachtenberg also will discuss, China, Russia, North Korea, and Iran are not interested in “stability.” They seek a new world order at the expense of the United States and allies. As long as this authoritarian Axis continues to view the United States as the impediment to their drive to reorganize the world order, it is simply naive to expect them to accept meaningful limitations on the military means that undergird their drive to reorder the globe. To expect otherwise would be to repeat dangerous past mistakes, such as President George H.W. Bush’s PNI initiatives.

What about missile defense in this context? Missile defense is no substitute for offensive capabilities that can hold at risk what opponents value.

But, moving now progressively to protect U.S. nuclear retaliatory capabilities, including nuclear command, control, and communications, is an urgent priority. The more effectively the United States provides this protection, the more able it will likely be to deter war—there are no trade-offs in this regard.

Critics of homeland missile defense are now repeating the same arguments I have heard since the 1960s: 1) Homeland defense cannot work; 2) homeland defense will destabilize deterrence; and 3) homeland defense will cause our opponents to arms race. These arguments have driven U.S. missile defense policy for decades.

But for all their repetition and policy influence, these arguments are demonstrably bogus or logically incoherent in the contemporary threat context. 1) Homeland defense likely *can work* in extremely helpful ways for deterrence and if deterrence fails; 2) homeland defense will likely *strengthen* deterrence in most plausible scenarios; and 3) our opponents have been arms racing for a decade or more for their own reasons in the context of a minimalist U.S. strategic defense capability—U.S. homeland defense now hardly is the cause of their racing.

Finally, our study examines the nuclear infrastructure. Tom Scheber will discuss this in some detail shortly. I will simply conclude by noting that the responsive infrastructure emphasized over two decades ago in the 2001 NPR is still years—perhaps a decade—away. Significant improvements are needed if it is to be capable of its mission.

That is a 50,000-foot summary of our study. I would like to invite Frank Miller to provide his comments. Frank served generously as a Senior Reviewer. Frank, the virtual floor is yours.

Franklin Miller

Franklin Miller is former Senior Director for Defense Policy and Arms Control on the National Security Council Staff.

I want to begin by congratulating Keith Payne and his NIPP team on the publication of “A New Strategic Review for a New Age: 2025.” It is extremely timely, hits the target squarely, and will, I hope, be taken up by the Trump Administration as a guide for how to act and progress over the next three and a half years...and especially the next five and some months leading up to what many of us hope is the burial of the Russian-violated and no longer useful New START Treaty.

I view “A New Strategic Review” as the most recent step in an intellectual journey which began with the October 2023 report of the bipartisan, congressionally mandated, Strategic Posture Commission, and then progressed with the Biden Administration’s Presidential Nuclear Targeting guidance of fall 2024. The journey began with the critical recognition,

which the NIPP report concurs with, that we must today deter Russia and China simultaneously (as well as maintaining a reserve for rogue states like North Korea).

At a more granular level, there are a number of points and recommendations I want to call out specifically for special emphasis and importance:

- The difference between a desired force posture to deal most effectively with the simultaneous deterrence threat and what is likely to be practicable in the near term.
- The need to identify near-term actions and decisions that could help adjust the posture rapidly to the extent feasible.
- The fact that upload of D-5's and Minuteman III's is advantageous and timely and necessary but it is not a substitute for modernization.
- We should fund and proceed as rapidly as possible to proceed with D-5 upload, back-filling the D-5 tubes removed from strategic service due to New START, upload Minuteman III, and reconvert B-52s removed from the nuclear role due to New START back to nuclear use.
- We should declare that the United States will build a minimum of 15 new Columbia SSBNs, increase the B-21 buy to a minimum of 150 aircraft, increase the Long-Range Stand Off (LRSO) buy such that every Air-Launched Cruise Missile (ALCM) hook on a B-52, B-2 and B-21 has an LRSO matched to it.
- We must take steps to accelerate the SLCM-N IOC and initiate design, development, and fielding of a stand-off nuclear system for the F-35.
- We should proceed with a multi-layered (including space-based) Golden Dome defense to raise the cost of enemy ballistic and air-breathing attack on the United States and our allies and to protect against all but massive strikes.
- We must challenge the arms control community to advance cogent, meaningful, and thoughtful arguments for new agreements. Their canonical ones: to prevent arms races and to maintain guardrails are shopworn and indeed bankrupt.

I believe the NIPP report covers all of these bases, and I urge the Administration to embrace it and implement its decisions rapidly and expeditiously.

Thomas Scheber

Thomas Scheber is former Director of Strike Policy and Integration, Office of the Secretary of Defense.

I will start with a bit of background.

Until it was shut down in 1989, the DOE nuclear warhead infrastructure had been continuously active for over forty years and had produced tens of thousands of nuclear warheads. By most accounts, it was a highly successful industrial enterprise. Since 1989, the United States has not produced a single nuclear warhead.

The 2001 *Nuclear Posture Review* called for deep reductions in the size of the nuclear force in combination with the revitalization of the nuclear infrastructure.

The role of the responsive infrastructure was defined as being ready to assess the reliability of the U.S. nuclear warheads, to evaluate the nuclear arsenals of adversaries, and to respond with warhead life extension programs, other modifications, or new designs in a timely manner.

In 2015, John Harvey and I wrote a report on our assessment of the Responsive Infrastructure. That report is available on the NIPP web site.

That assessment found significant shortcomings in the infrastructure at that time—both in the revitalization of industrial facilities and in the balance of technical programs at the Laboratories. We identified specific steps to remediate those deficiencies.

The responsive infrastructure section of this new report builds on the 2015 assessment. It finds that the deficiencies identified in 2015 still exist and need remedial action.

What can the reader expect to find that is new? I will mention three areas that may be of interest.

First, the report provides a short section on government decisions, which seemed appropriate at the time, but which have broken the previously successful industrial model for building warheads.

Let me briefly explain:

- In 1989, after over four decades of continuous operation, the nuclear warhead production infrastructure of the United States was shut down due to regulatory non-compliance at the plutonium pit fabrication plant in Rocky Flats, Colorado. Without newly produced pits, everything in the warhead production complex came to a halt.
- In 1991, since the production complex was idle, a reconfiguration plan was devised, and some infrastructure missions were transferred to other sites; some sites were permanently closed and many skilled workers retired.
- Next, the primary mission of this enterprise was changed from replacing older warheads with newly produced warheads at planned end of service life and implementing a new mission—life-extending aging warheads.
- And in 1992, nuclear testing ceased. Testing was, and still is, the only way to demonstrate conclusively that each type of warhead functions as expected.

In addition, the office tasked with coordinating the fabrication of warhead components, shipping, and assembling complete nuclear warheads was disestablished.

Second, the second major topic discussed in this new report contains a list of key infrastructure capabilities that are needed for a responsive infrastructure and describes the current status of each. This section of the report will be perhaps the most familiar to readers.

The assessment concludes that the industrial infrastructure needed is still years—perhaps a decade—away.

The report identifies actions still needed to complete modernizing industrial facilities. All are important. Some are urgent.

Actions listed as urgent deal with:

- **Plutonium processing and fabrication:** proceed with greater urgency to achieve an operational pit fabrication capability at Los Alamos; accelerate the second fabrication site at the Savannah River Site (SRS); and develop plans for each site to be able to scale-up plutonium pit production quantities in a timely manner.
- **Nuclear test readiness:** survey test readiness capabilities and take immediate corrective action to restore a readiness capability to conduct a fully instrumented nuclear test within two years; also, appropriate funds for test readiness and keep the funding in an “escrow” account to be used, when needed, to begin test preparations.
- **DoD and NNSA Program Integration:** The W93 warhead development program presents a unique opportunity to get the entire NNSA infrastructure up and running in coordination with DoD. The following actions will have to be completed and integrated:
 - Warhead development and production (by NNSA)
 - New reentry vehicle development for SLBMs (by DoD)
 - DoD/NNSA integration

This will be the first opportunity in almost forty years for all elements of the industrial enterprise, as well as DoD, to work together and produce a new nuclear warhead.

Third, the report addresses the question: **So What! Why is this issue so important at this time? The U.S. has gotten by with a partially functional infrastructure for over 35 years. What is the urgent concern now?**

This new report describes why achieving a functionally responsive infrastructure has become increasingly important at this time and why getting the infrastructure fully up and running is not likely to be achieved smoothly even after all facility modernization is completed.

1. **How nuclear weapons work:** Unlike the operation of conventional explosives, the successful operation of a nuclear warhead design currently in the U.S. inventory involves precise timing, successful generation of both fission and fusion reactions in the weapon primary, and transfer of x-rays, and fusion in the secondary. All must occur as designed within one ten-thousandths of a second while the warhead is blowing itself up. There are many possible ways in which these sophisticated designs could fail.

Eventually life extension of existing warheads will no longer be feasible due to aging and multiple modifications, and the old warheads will have to be replaced with

newly built ones. A fully operational infrastructure, including nuclear testing, will be important to respond and be ready to respond to future needs.

2. **Russia and China:** In the 1990s, the United States was so far ahead of Russia and China in its ability to design and produce nuclear warheads that a challenge from either was viewed as inconceivable. However, in 2025, U.S. capabilities have atrophied while Russian and Chinese infrastructure capabilities have been modernized and have been fully active for decades. Currently, U.S. capabilities are inferior in many ways to those of both Russia and China.
3. **Industrial best practices:** Lessons from other industries indicate that restarting the U.S. production complex for nuclear warheads after thirty-five years may be more difficult than anticipated.

I have read a number of analyses regarding the aircraft production industry and the problems that have been identified at Boeing's enterprise. I was struck by the parallels between identified causes of problems at Boeing and similar patterns in the warhead industry. For example, the corporate culture of the leadership at Boeing changed significantly after Boeing's 1997 merger with McDonald-Douglas—from a leadership culture that demanded engineering excellence to one driven by cost efficiencies.

Similarly, the culture of the leadership of the nuclear complex has also changed significantly since it was shut down in 1989. In the past, the nuclear complex was managed by designers, engineers, and production experts with years of experience in the industry. It is now driven primarily by analysts and computer simulation personnel that have never designed and produced a new nuclear warhead.

Other parallels with industry are discussed in the report.

Mark B. Schneider

Mark B. Schneider is former Principal Director for Forces Policy, Office of the Secretary of Defense.

In 2024, the Biden Administration pointed publicly to the Russian, Chinese and North Korean nuclear force buildups and the potential need to strengthen U.S. nuclear capabilities in response to these threats, although it left the decision to the incoming Trump Administration.¹ Particularly troubling, the United States may have significantly underestimated Russian and Chinese nuclear capabilities.

¹ Pranay Vaddi, "Adapting the U.S. Approach to Arms Control and Nonproliferation to a New Era," Arms Control Association, June 7, 2024, available at <https://www.armscontrol.org/2024AnnualMeeting/Pranay-Vaddi-remarks>.: "Nuclear Threats and the Role of Allies": Remarks by Acting Assistant Secretary of Defense for Space Policy Dr. Vipin Narang at CSIS," August 1, 2024, available at

Moscow has been in violation of the New START Treaty since 2022 when it refused to allow Treaty-required on-site inspections (which are critical to warhead counting) and in 2023 Putin illegally “suspended” the entire Treaty.² The extent to which Russia may have covertly uploaded its strategic nuclear forces is uncertain since the last New START Treaty on-site inspection happened in March 2020 and Russian strategic nuclear forces may have been covertly uploaded.³

Contemporary U.S. plans for the modernization of nuclear forces are an approximately 15-year-old legacy of the Obama Administration and they are moving slowly.⁴ While the basic U.S. approach to nuclear deterrence has not significantly changed for decades, Washington’s ability to implement it has drastically declined due to the combination of deep U.S. nuclear weapons reductions and the expansion of opponents’ nuclear and other military forces, particularly China.⁵

Today, the United States reportedly has ~1,660 deployed strategic nuclear weapons.⁶ With this level of capability, even with planned U.S. force modernization, the United States likely cannot fully hold at risk Russian and Chinese targets related to deterrence.⁷ Absent U.S. action, the situation will get worse.

Nuclear force upload is an advantageous and timely option for deterrence purposes and is the only near-term option relevant to the possibility of a 2027 Chinese attack on Taiwan and a coordinated or opportunistic Russian attack on NATO. Significant U.S. upload now requires prompt U.S. withdrawal from the expiring (in February 2026) New START Treaty. Given New START’s limit on accountable deployed warheads (1,550), the United States can upload its strategic missile force by only 131 warheads using the last available U.S. deployed START-accountable warhead number which is from 2023.⁸

The potential upload, even under the limits of New START, would provide ~2,200 warheads. Absent New START limits, the Trident SLBM force reportedly could be uploaded in months and the Minuteman ICBM force in about three to four years. In the past, the

<https://www.defense.gov/News/Speeches/Speech/Article/3858311/nuclear-threats-and-the-role-of-allies-remarks-by-acting-assistant-secretary-of/>.

² U.S. Department of State, Office of the Spokesperson, “Russian Noncompliance with and Invalid Suspension of the New START Treaty,” Fact Sheet, June 1, 2023, available at <https://2021-2025.state.gov/russian-noncompliance-with-and-invalid-suspension-of-the-new-start-treaty/>.

³ Mark B. Schneider, “Red Flag: State Department Report on Russian New START Treaty Compliance,” *Real Clear Defense*, February 3, 2025, available at https://www.realcleardefense.com/articles/2025/02/04/red_flag_state_department_report_on_russian_new_start_treaty_compliance_1089158.html.

⁴ See the discussion in, Keith B. Payne and John S. Foster, Jr., *A New Nuclear Review for a New Age* (Fairfax, VA: National Institute Press, 2017), p. 22, available at <https://nipp.org/wpcontent/uploads/2021/03/A-New-Nuclear-Review-final.pdf>.

⁵ Mark B. Schneider and Keith B. Payne, *Tailored Deterrence and Low-Cost Nuclear Weapons Upload* (Fairfax, VA: National Institute Press, 2025), p. 9, available at <https://nipp.org/wp-content/uploads/2025/07/Vol.-5-No.-6.pdf>.

⁶ Hans M. Kristensen, Matt Korda, Eliana Johns and Mackenzie Knight, “United States nuclear weapons 2025,” *Bulletin of the Atomic Scientists*, March 2025, Vol. 81, No. 1, p. 53, available at <https://doi.org/10.1080/00963402.2024.2441624>.

⁷ Schneider and Payne, *Tailored Deterrence and Low-Cost Nuclear Weapons Upload*, op. cit., p. vi.

⁸ Ibid., p. 16.

bomber force could be uploaded in a matter of weeks. However, a 2007 decision eliminated all but 528 nuclear ALCMs (now reduced by almost 20 years of testing) and all Advanced Cruise Missiles. It has drastically reduced upload potential.

Even with the large funding increases for the B-21 program in the Big Beautiful Bill, it is unlikely that a significant number of B-21s would be available by 2027, the date of a possible Chinese invasion of Taiwan, and the IOC for the rest of the modernization program is 2030 or later and is behind schedule.⁹

Under New START limits, the modernization program, while essential, will not substantially increase the number of U.S. deployed nuclear weapons except for bomber weapons.¹⁰ A few hundred more bomber weapons could probably be added but this means little unless we restore the ability to maintain a bomber alert.¹¹

At this point, nuclear weapons upload is likely the only way America can adequately enhance the force size and flexibility needed to tailor deterrence in the near term for the prevention of great power conflict, including major aggression against U.S. allies.¹²

Absent New START limits, with uploading, the Trident SLBM force reportedly could increase from ~960 to ~1,626 deployed warheads and the Minuteman ICBM force could increase from about 400 to ~1,000 deployed warheads, for a deployed strategic ballistic missile force of ~2,626 warheads.¹³ (Maximum SLBM upload would be 1,920 but this is unlikely because of range reduction.)¹⁴ Additionally, there will be several hundred bomber weapons which could be somewhat increased via uploading.

The number of warheads could be somewhat higher or lower than these estimates depending upon decisions related to necessary missile range, warhead footprint and the required number of single warhead missiles.¹⁵

The cost of upload to about 3,500 warheads would be quite modest—largely transportation and warhead installation. An August 2020 report of the Congressional Budget Office (CBO) concluded that: 1) expanding nuclear forces to the Moscow Treaty limit (2,200) warheads “would not increase the Department of Defense’s (DoD’s) costs relative to its current plans....”; and 2) “Increasing warhead loadings to reach the START II limits [3,500 warheads] would incur about \$100 million in onetime costs for DoD.”¹⁶ Moreover, the \$100 million would be spent over a period of several years.

⁹ Madelyn Creedon and Jon Kyl, et al., Congressional Commission on the Strategic Posture of the United States, *America’s Strategic Posture, The Final Report of the Congressional Commission on the Strategic Posture of the United States* (Alexandria, VA: Institute for Defense Analysis, 2023), pp. 43-49, available at <https://www.ida.org/-/media/feature/publications/a/am/americas-strategicposture/strategic-posture-commission-report.ashx>.

¹⁰ Schneider and Payne, *Tailored Deterrence and Low-Cost Nuclear Weapons Upload*, op. cit., pp. 16-17.

¹¹ Ibid., pp. 26-27.

¹² Ibid., p. 40.

¹³ Ibid., pp. vii, 17.

¹⁴ Ibid., p. 21.

¹⁵ Ibid., p. viii.

¹⁶ Congressional Budget Office, “The Potential Costs of Expanding U.S. Strategic Nuclear Forces If the New START Treaty Expires,” August 2020, available at <https://www.cbo.gov/system/files/2020-08/56475-START.pdf>.

U.S. strategic nuclear forces could be fully uploaded before the first element of the planned modernization program becomes operational, which is not being pursued with urgency.

The planned 12 Columbia-class submarines will carry fewer missiles than the 14 Trident submarines and, according to STRATCOM Commander General Anthony Cotton, are “...the absolute minimum required to meet [the] strategic guidance.”¹⁷ To support deterrence now, some of the bombers should be put on alert to increase U.S. force survivability and resilience. There is a need to increase capabilities against hard and deeply buried targets. Both upload and modernization are necessary. Upload is the only near-term option.¹⁸

To deter adversaries that are increasingly deploying nuclear forces geared for warfighting, the United States needs diverse capabilities, including variable yield systems. Upload can help. Retention of the B83 and W88 weapons would also help. High delivery accuracy also increases deterrence strategy adaptability and targeting flexibility. We need higher accuracy than in the legacy program.¹⁹

Russia has a “vast arsenal of non-strategic nuclear weapons.”²⁰ Most estimates range from about 2,000 to 10,000.²¹ In February 2024, General Cotton said China “...has approximately 1,000 medium- and intermediate-range dual-capable... ballistic missiles....”²² China may also possess nuclear-capable cruise missiles, short-range ballistic missiles, and gravity bombs.²³

The United States needs more non-strategic nuclear capability for credible extended deterrence purposes. A straight-line projection of the Pentagon’s estimates over the last four years would result in about 900 Chinese nuclear warheads by 2027, and this may be a low estimate. There is serious funding for the development of SLCM-N in the Big Beautiful Bill. The use of TLAM Block 5 SLCM could substantially speed up availability.²⁴

¹⁷ Senate Armed Services Committee, “Statement of General Anthony J. Cotton,” March 26, 2025, p. 10, available at https://www.armed-services.senate.gov/imo/media/doc/testimony_of_general_anthony_jcotton2.pdf.

¹⁸ Schneider and Payne, *Tailored Deterrence and Low-Cost Nuclear Weapons Upload*, op. cit., pp. 28-30.

¹⁹ *Ibid.*, pp. 32-33.

²⁰ Office of Director of National Intelligence, *Annual Threat Assessment of the U.S. Intelligence Community*, March 2025, p. 20, available at <https://www.dni.gov/files/ODNI/documents/assessments/ATA-2025-Unclassified-Report.pdf>.

²¹ Mark B. Schneider, *How Many Nuclear Weapons Does Russia Have? The Size and Characteristics of the Russian Nuclear Stockpile* (Fairfax, VA: National Institute Press, 2023), pp. 189-190, available at <https://nipp.org/wpcontent/uploads/2023/09/Vol.-3-No.-8.pdf>.

²² “Statement of General Anthony J. Cotton,” Senate Armed Services Committee, March 9, 2023, p. 6, available at <https://www.armedservices.senate.gov/imo/media/doc/2023%20USSTRATCOM%20Congressional%20Posture%20Statement%20-%20SASC.pdf>.

²³ Mark B. Schneider, “The Chinese Nuclear Threat,” *Information Series*, No. 599 (Fairfax, VA: National Institute Press, September 26, 2024), available at https://nipp.org/information_series/mark-b-schneiderthe-chinese-nuclear-threat-no-599-september-26-2024/.

²⁴ See the suggestion by Rob Soofer in Sydney J. Freedberg, Jr., “Sublaunched nuclear cruise missile will need ‘an entirely new industrial base,’ warns Navy admiral,” *Breaking Defense*, November 15, 2024, available at <https://breakingdefense.com/2024/11/sub-launchednuclear-cruise-missile-will-need-an-entirely-new-industrial-base-warnsnavy-admiral/>.

There are no U.S. nuclear weapons deployed in the Indo-Pacific region and our ability to rapidly deploy theater nuclear weapons is questionable.²⁵ The congressional Strategic Posture Commission rightly concluded that there is an “urgent need” for U.S. theater nuclear forces to be “deployed or based in the Asia-Pacific theater.”²⁶

It is necessary to give at least one U.S. hypersonic and other INF-range missiles a nuclear capability to enhance extended deterrence and reduce the risk of proliferation.²⁷ In the near term, inexpensive warhead upload may be the only option available option to help sustain nuclear deterrence in the Indo-Pacific.

David J. Trachtenberg

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As has already been noted, our report talks about the importance of uploading weapons on existing platforms in order to help strengthen deterrence in the face of major nuclear weapons expansion programs by both Russia and China. In fact, given the breadth and scope of nuclear weapons modernization by Moscow and Beijing, coupled with the lack over many decades of any commensurate modernization program by the United States, we judge uploading nuclear weapons on existing ICBMs and SLBMs to be the quickest and most cost-effective way to bolster the overall U.S. nuclear deterrent. Our recommendation is also consistent with the 2023 conclusions of the Strategic Posture Commission.

Uploading actions can be taken by Executive Branch decision, but our report also notes that Congress can play an important role in facilitating the process by mandating and providing the necessary funding to proceed with these force enhancements on a timely basis.

The study recommends a number of actions Congress can take to facilitate the upload of U.S. nuclear weapons in ways that strengthen deterrence and extended deterrence. These include requiring official reports to identify U.S. deployed deterrence force requirements, Russian and Chinese upload capability and U.S. response options; ensuring adequate fiscal resources are provided to implement upload decisions and actions; directing expedited infrastructure improvements to meet national requirements; and mandating the

²⁵ Stephen Bryen, “The case for restoring US nukes in East Asia,” *Asia Times*, May 6, 2021, available at <https://asiatimes.com/2021/05/the-case-for-restoring-us-nukes.-in-east-asia/>. See also, Mark B. Schneider, “Does the United States Have Any Real Capability to Forward Deploy Nuclear Weapons Rapidly Outside of NATO Europe?,” *Real Clear Defense*, August 27, 2021, available at https://www.realcleardefense.com/articles/2021/08/27/does_the_united_states_have_any_real_capability_to_forward_deploy_nuclear_weapons_rapidly_outside_of_nato_europe_791788.html.

²⁶ Creedon and Kyl, et al., *The Final Report of the Congressional Commission on the Strategic Posture of the United States*, op. cit., p. viii.

²⁷ Schneider and Payne, *Tailored Deterrence and Low-Cost Nuclear Weapons Upload*, op. cit., p. 39.

reconstitution of a modern hedge stockpile of non-deployed warheads in the event of a further deterioration in the strategic environment.

As the report notes, uploading U.S. delivery systems is the most rapid and effective way to improve the efficacy of the U.S. nuclear deterrent. And the Congress should act expeditiously to implement the actions proposed. Accordingly, the report recommends suspending U.S. implementation of the New START Treaty to allow for upload increases in the number of operationally deployed warheads on strategic delivery vehicles.

Russia's suspension of New START frees Moscow to upload weapons on its delivery systems, and the lack of New START-mandated inspections since 2022 makes it impossible to know whether Russia has already expanded its strategic nuclear forces in this way, which seems likely.

Interestingly, the report's recommendation to suspend U.S. implementation of New START and proceed with uploading seems to have generated significant consternation among arms control advocates. In fact, some of the most vigorous arms control devotees are now calling for a new arms control agreement that prohibits upload.

For example, Rose Gottemoeller, the chief New START negotiator, has proposed a 10-year arms control agreement that would include, in her words, "a ban on upload for the duration of the treaty." Her argument is that if the United States uploads warheads, quote, "Russia might do the same, and a form of arms race could begin."²⁸

Daryl Kimball of the Arms Control Association has called on the United States and Russia to negotiate "a unilateral, reciprocal arrangement that neither will exceed the deployed strategic warhead limit set by New START until a more permanent arms control arrangement comes into effect," because, he contends, "In the absence of such an arrangement, each side could upload warheads on their strategic delivery systems quickly...."²⁹

And the Federation of American Scientists has argued that without a new arms control agreement to follow New START, "both the United States and Russia could potentially increase their deployed nuclear arsenals by uploading several hundred of stored reserve warheads onto their launchers."³⁰

Clearly, our recommendation on uploading appears to be the main concern of arms control advocates and the number one action they wish to prohibit in any future arms control agreement.

Notwithstanding the fact that Russia is likely to have already uploaded warheads, the argument that U.S. actions are the driver of similar adversary reactions and that U.S. strategic

²⁸ Rose Gottemoeller, "Arms Control Is Not Dead Yet: American Should Pursue Parallel Nuclear Negotiations With China and Russia," *Foreign Affairs*, April 15, 2025, available at <https://www.foreignaffairs.com/united-states/arms-control-not-dead-yet>.

²⁹ Daryl G. Kimball, "A Plan to Reduce Nuclear Dangers in a Time of Peril," *Arms Control Today*, July/August 2023, available at <https://www.armscontrol.org/act/2023-07/focus/plan-reduce-nuclear-dangers-time-peril>.

³⁰ Hans M. Kristensen, Matt Korda, Eliana Johns, Mackenzie Knight-Boyle, "United States nuclear weapons, 2025," *Bulletin of the Atomic Scientists*, January 13, 2025, available at <https://thebulletin.org/premium/2025-01/united-states-nuclear-weapons-2025/>.

restraint will result in similar adversary restraint is an often repeated but wholly discredited Cold War theory that is demonstrably false.

In fact, what our report concludes, and what arms control proponents fail to acknowledge, is that no meaningful arms control agreement is possible as long as the parties have diametrically opposed goals and objectives. To paraphrase Clausewitz, arms control, like war, is “the continuation of politics by other means.” In other words, no agreement that serves U.S. national security interests is possible if the other parties to an agreement seek to undermine the very U.S. national security interests that arms control is supposed to protect and safeguard.

Arguments that arms control with Russia and China is necessary “to sustain a stable environment” and that the United States should “convince Beijing that its interests lie in predictability and stability” ignore the fact that neither Moscow nor Beijing are interested in sustaining the “stability” that the United States favors, as that stability—in the eyes of the Russian and Chinese leaderships—relegates them to second-class status on the world stage.

Arms control advocates wrongly assume a commonality of interests and objectives among Washington, Moscow and Beijing. For example, suggesting that arms control now will reverse China’s nuclear ambitions ignores the reality that Beijing’s nuclear buildup underpins its desire to expand its power and influence at America’s expense—a goal that China is unlikely to abandon by agreeing to negotiate arms limitations in the interest of “stability.”

Similarly, decades of Soviet and then Russian arms control cheating, coupled with the massive buildup of Russian nuclear forces and the plethora of nuclear threats expressed by Russian officials, show that Moscow has no interest in “mutual restraint.”

There is no reason to believe Beijing or Moscow have any interest in arms control to facilitate the U.S. definition of “stability.” Rather, they seek to upset the existing world order with assertive behavior and extensive military and nuclear capabilities—the antithesis of stability.

Wishful thinking that they share U.S. goals is more likely to encourage further delays in the necessary and long-overdue U.S. strategic modernization program, further undermining the efficacy and credibility of the U.S. nuclear deterrent, including the U.S. extended nuclear deterrent. It will also generate additional calls to prohibit the necessary upload of U.S. weapons that will help restore credible deterrence in the face of the aggressive nuclear buildups by U.S. adversaries.

As long as Russia and China continue to view the United States as the main impediment to their drive for global supremacy, arms control is destined to fail. It is simply unrealistic to assume that Moscow or Beijing will agree to any meaningful limitations on their respective military buildups, as those buildups underpin their drive for global dominance.

Under these circumstances, the United States must not succumb to the temptation of accepting an agreement that appears attractive but in reality works against U.S. national security interests.

As our study concludes, the American concept of “stability” does not align with the views of Russia or China. The Western desire to maintain the status quo, grounded in norms and

rules of behavior intended to preserve the sanctity of national borders, runs counter to their desire to change the status quo and establish a new world order in their favor. Under these conditions, meaningful arms control that advances American security and national interests is a chimera.

This is one of the new strategic realities in this new age. U.S. policy makers would do well to understand it and to act accordingly to preserve U.S. national security in the face of gathering storm clouds.



LITERATURE REVIEW

National Institute for Deterrence Studies, *Peace Through Strength: Renewing America's Nuclear Deterrent—A Proposed Nuclear Posture Review for 2026*, November 10, 2025, 53 pp.

In recent years, the global security environment has continued to deteriorate to the detriment of U.S. national security. China's increasingly aggressive and expansionist goals and Russia's revanchist policies have been underpinned by repeated coercive nuclear threats to the West over Ukraine and Taiwan. North Korea continues to develop nuclear weapons and Iran's nuclear ambitions remain unmoderated despite the success of Israeli and American military actions targeting Tehran's nuclear weapons enterprise.

Nearly one year into the second Trump Administration, only one of the seminal strategy documents that explain how the administration intends to confront the growing challenges of this dynamic security environment has so far been released—the *National Security Strategy*. The *National Defense Strategy* has reportedly been delayed, and it remains unclear whether a new *Nuclear Posture Review* or *Missile Defense Review* will be forthcoming. Some observers have argued that there is no need for a new *Nuclear Posture Review* (NPR), as the 2018 NPR promulgated by the first Trump Administration provides a sufficient framework for modernizing the nation's nuclear deterrent to address contemporary security challenges without the need for a lengthy, bureaucratic process.¹ Others support issuance of a comprehensive NPR to address changes in the security environment since the first Trump and Biden Administration NPRs.

The National Institute for Deterrence Studies falls squarely in the latter camp and has developed a notional NPR that could form the basis for an official and comprehensive nuclear strategy document. *Peace Through Strength: Renewing America's Nuclear Deterrent—A Proposed Nuclear Posture Review for 2026*, provides a detailed and well-articulated rationale for strengthening U.S. nuclear posture to deter adversary aggression. It calls for the development and deployment of more flexible strategic and non-strategic nuclear forces tailored to convince potential adversaries that the costs of aggression vastly outweigh the perceived benefits. Overall, it provides an excellent tutorial on the importance of U.S. nuclear weapons and the requirements for deterrence and extended deterrence in an ever-changing world.

The Preface of *Peace Through Strength* takes issue with those who argue that a new NPR is unnecessary, contending that the world has changed “dramatically” since the first Trump Administration and advocating for a clear and succinct policy document that provides an “unambiguous declaratory statement, providing specific guidance to the force for planning and resourcing.” It declares that “a new NPR is necessary, not optional.” It notes that the U.S. nuclear arsenal, among other things, deters strategic attacks, strengthens alliances, and

¹ See, for example, Madelyn Creedon and Franklin Miller, “Deterring the Nuclear Dictators,” *Foreign Affairs*, November 20, 2024, <https://www.foreignaffairs.com/united-states/deterring-nuclear-dictators#>.



supports U.S. non-proliferation goals. It states that advanced conventional forces can augment but cannot substitute for nuclear capabilities and calls for a “maximalist deterrence strategy.” This maximalist strategy requires the modernization and expansion of U.S. nuclear forces to ensure a sufficiently robust and credible nuclear deterrent.

Among the policy recommendations the report advocates are improving the survivability of all three legs of the U.S. strategic nuclear Triad, including through support for President Trump’s “Golden Dome” missile defense initiative; suspending the New START Treaty to allow for the upload of non-deployed “hedge” weapons on existing platforms; and updating the U.S. extended deterrent policy to reflect what it characterizes as a “Shared Regional Deterrence” approach.

Interestingly, although the report argues that changes in the strategic environment since the first Trump Administration have been significant enough to require a new NPR, many of the policy courses it advocates reflect the conclusions and recommendations contained in the 2018 NPR. For example, it calls for a tailored deterrent force that “addresses the unique factors in each adversary’s decision-making, values, and interests.” It supports “hedging against an uncertain future” by developing a diverse nuclear arsenal to close any capability gaps on the so-called escalation ladder (a position the 2022 Biden NPR explicitly rejected), including the deployment of a nuclear sea-launched cruise missile (SLCM-N). It rejects “minimum deterrence,” “no first use,” and “sole purpose” policies. And it reiterates that the United States would only use nuclear weapons in “extreme circumstances,” noting that “non-nuclear strategic attacks” may be met with a nuclear response.

The report does go further, however, arguing for uploading nuclear weapons on existing platforms (a recommendation of the 2023 Strategic Posture Commission and others); fostering the ability to launch on “credible warning,” rather than riding out a first-strike attack; restoring alert status to the bomber fleet; re-roleing the B-1B bomber for nuclear missions; re-MIRVing at least some of the Minuteman III ICBM force; implementing mobile ICBM options (another Strategic Posture Commission recommendation); reactivating decommissioned SLBM launch tubes on *Ohio*-class submarines; and improving the survivability and resilience of the nuclear command, control, and communications (NC3) infrastructure. It also advocates for developing new offensive and defensive capabilities, improving continuity of government exercises, and revitalizing the nuclear deterrence workforce.

Despite the overall solid conclusions and recommendations in the report, there are some areas that appear somewhat schizophrenic. For example, the report calls arms control treaties “essential to the liberal rules-based international order,” though it acknowledges that arms control agreements “frequently fail to achieve their intended goals” and “often fail to adapt to the fluctuating geopolitical threats, shifting national interest, or technological advancements.” Consequently, it notes that the United States “must prepare for a world without mutual and verifiable arms control.” On the other hand, it argues that an adequate deterrent force will “motivate an adversary’s interest in and compliance with arms negotiations and treaties” and holds out hope that rebuilding the nation’s nuclear deterrent

will cause adversaries to “change their perspective, abandon their revanchist goals, and actively support the rules-based international order.”

Although the notion that arms control “promotes diplomacy, cooperation, and multilateralism to reduce nuclear threats and enhance stability” is an often-asserted generality, the historical evidence challenges this common perception. As long as adversary goals and objectives are fundamentally at odds with those of the United States, the prospect of arms control serving U.S. national security interests are slim to non-existent. And the notion that improvements to the U.S. nuclear deterrent force will help compel adversary compliance with arms control agreements seems problematic at best given that adversaries see arms control as a tool to advance their own strategic objectives at America’s expense. On this point, the report correctly notes that “it is unlikely that autocratic regimes with nuclear weapons and aggressive goals will engage in arms control in a way that aligns with the spirit of international order.”

In addition, the report advocates for a strategy of “Dynamic Parity,” which it defines as “achieving a symmetrical balance of nuclear capabilities with those of our collective nuclear adversaries.” While it is true that increased cooperation and collaboration among adversaries requires sufficient U.S. nuclear capabilities to deter the possibility of coordinated aggression, this may suggest to the reader matching adversary capabilities one-for-one. Indeed, the report states that Dynamic Parity “emulates adversarial nuclear behavior.” Some greater definitional and analytical clarity would have been useful here. Moreover, the notion of “parity” (“dynamic” or otherwise) is an insufficient yardstick for measuring either the success of arms control or the adequacy of U.S. deterrent capability. As Colin Gray insightfully explained, what matters is “the net freedom of action permitted each side and of the implications of that judgment for conflict outcomes at all levels.”² And as he and Keith Payne noted, “A condition of parity or essential equivalence is incompatible with extended deterrent duties because of the self-deterrence inherent in such a strategic context.”³

The notion of Shared Regional Deterrence is a call for greater allied burden sharing, which is consistent with the Trump Administration’s approach. In this regard, the report asserts that “The past strategy of Extended Deterrence fails to meet the demands of the new global security environment” for various reasons, including growing allied concerns over the credibility of U.S. security guarantees, different allied interests, and past underinvestment in regional defense capabilities due to allied “free riding.” The solution is to minimize “regional capability disparities that can promote destabilizing aggression and miscalculation” through capability enhancements, forward deployment of U.S. forces, and improved regional missile

² Colin Gray, “The Strategic Implications of the Nuclear Balance and Arms Control,” in Richard Staar, ed., *Arms Control: Myth Versus Reality* (Stanford, CA: Hoover Institution Press, 1984), p. 26. Gray elaborated on this point, noting, “Roughly equivalent strategic forces, posing roughly equivalent kinds and scales of damage to superpower homelands - were this the case - should be hindered in their ability to provide for stability in deterrence because one party, the United States, would have a visibly fearful populace to act as a brake upon policy, while the other party would not. In short, the asymmetry in political systems could mean that parity in strategic forces may not translate readily into parity in deterrent effect.” See Colin S. Gray, “War Fighting for Deterrence,” *Journal of Strategic Studies*, Vol. 7, No. 1, 1984, p. 8.

³ Colin S. Gray and Keith B. Payne, “Victory Is Possible,” *Foreign Policy*, No. 39, Summer 1980, p. 16, https://dn720003.ca.archive.org/0/items/victory_is_possible/victory_is_possible.pdf.

defenses. The report's support for enhancing U.S. regional nuclear capabilities is a welcome recommendation, though the problems it identifies with extended deterrence are unlikely to be fully rectified by the burden sharing approach it recommends.

One aspect missing from the report that would be useful for the reader is the lack of footnotes identifying the source of certain information. For example, the report states that "America's spending on conventional weapons has surpassed its spending on nuclear weapons by a ratio of more than five to one"; China "is the fastest-growing nuclear power on the planet, producing over 100 nuclear warheads per year"; Russia's Sarmat ICBM is "capable of carrying 12-20 MIRV warheads"; "North Korea could have as many as 300 nuclear warheads and 50 ICBMs by 2035"; and "other experts suggest that [Russia's non-strategic nuclear] advantage may be as high as 25 to 1." These statements may indeed be true, but without proper sourcing the reader is left wondering about their veracity. There are several bibliographic references listed at the end of the document, but only by title, and some of these are unexplained (e.g., "Nuclear Stockpile Hedge Capabilities & Activation Timelines" and "Extended Deterrence Forward Deployment Options").

Peace Through Strength provides an excellent analysis of the nuclear threat to the United States and its interests. Although there are some glaring omissions, such as the lack of any discussion of the nuclear testing issue, it contains a plethora of intellectually sound policy recommendations that should be seriously considered by the Trump Administration. Of course, the value of any strategy lies in its implementation, and that requires resourcing. While the authors of this report are to be commended for addressing how the United States can successfully confront the deterrence challenges it is likely to face in the future, the difficulties of turning recommendations into reality become devastatingly apparent in the face of political and bureaucratic resistance.

Regardless of whether the administration produces a new *Nuclear Posture Review*, one can only hope that the report's well-reasoned analysis and recommendations will translate into a critical mass of support for the policies and programs it advocates. In today's increasingly dangerous international environment, nothing less will suffice.

*Reviewed by David J. Trachtenberg
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A. Wess Mitchell, *Great Power Diplomacy: The Skill of Statecraft from Attila the Hun to Kissinger* (Princeton University Press, 2025), pp. 352.

In *Great Power Diplomacy: The Skill of Statecraft from Attila the Hun to Kissinger*, Wess Mitchell makes a brilliantly-executed attempt to reconceptualize diplomacy as a part of strategy. The author argues that this is how diplomacy was practiced over the past centuries, but forgotten, at least in the United States. The utopian euphoria after the end of the Cold War assumed that people around the world share a common goal of living together in peace

and that states will forego war as a legitimate instrument their foreign policy. Mitchell's message is clear: the United States has much to gain from resurrecting pragmatic diplomacy as a part of its grand strategy.

Mitchell's case studies span thousands of years and different cultures and political systems, from the fifth century Byzantine Empire attempting to evade the wrath of Attila the Hun's invading forces to President Richard Nixon's opening of China in the late 1970s. The other case studies discuss: the 15th century Venetian Republic and its dealings with the Ottoman Empire; 18th century Habsburg Empire and its brilliant strategist Wenzel Anton von Kaunitz's organization of alliances against Prussia; diplomacy of the 19th century's Austrian Foreign Minister Klemens Von Metternich who organized a balance of power system also known as the Concert of Europe; the late 19th century Otto Von Bismarck's *realpolitik* in Germany; and, the British leaders and diplomats' efforts to secure the empire from multiple-front war in 20th century, including Britain's ill-fated attempts at appeasing Hitler prior to World War II.

The author identifies prerequisites for diplomacy that enable it to perform its core function—to concentrate one's power while diluting adversary's. In the examined cases, diplomacy contributed to the prevention or delay of a two-front war at a time when a state was unwilling or unable to sustain and support the military forces that would be capable of countering such a conflict. Among these prerequisites are knowledgeable and skillful diplomatic apparatus focused on the core mission of advancing a state's interest, rather than distracted by bureaucratic infighting, and intimate knowledge of opponents' strategic culture.

Yet, as Mitchell points out, success in diplomacy is not guaranteed under the best of conditions. Diplomacy can fail for a variety of reasons, including bad luck or poor grasp of other state's interests. At the end of the day, Mitchell's analysis begs the question: whether successful diplomacy bears seeds of a state's own failure, for when diplomacy contributes to a state's sense of security, it becomes yet more difficult for a government to fund forces upon which this security ultimately depends. The added tragedy of appeasement and utopian sentiments that took hold of the public discourse in the 1920s and 1930s and which diplomacy fostered, was that they made it that much harder to rearm the free world in the face of brutal aggressive and revisionist threats.

Mitchell's book demonstrates that diplomacy can make a strategic difference in nation's security affairs. The author's discussion of diplomacy's successes as well as failures strengthens his case and makes for a more compelling read that should not be missing from any practitioner's bookshelf.

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DOCUMENTATION

This issue's Documentation section features excerpts from the recently released *National Security Strategy*, in which the Trump Administration discusses its priorities and means to achieve them. The section also features excerpts from Robert P. Kadlec's November 2025 hearing to consider his nomination for Assistant Secretary of Defense for Nuclear Deterrence. The hearing offers a glimpse into the Trump Administration's policy in these areas and also Congress' interests. The third document provides select excerpts from Israeli Prime Minister Benjamin Netanyahu's remarks during his September 2025 visit to the White House. The fourth document, excerpts from the Executive Summary and Key Recommendations of the 2025 China Commission Report, discusses the national security implications of the bilateral trade and economic relationship between the United States and the People's Republic of China.

Document No. 1. The White House, *National Security Strategy of the United States of America*, November 2025 (select excerpts)¹

[...] A strategy must evaluate, sort, and prioritize. Not every country, region, issue, or cause—however worthy—can be the focus of American strategy. The purpose of foreign policy is the protection of core national interests; that is the sole focus of this strategy. [...]

After the end of the Cold War, American foreign policy elites convinced themselves that permanent American domination of the entire world was in the best interests of our country. Yet the affairs of other countries are our concern only if their activities directly threaten our interests.

Our elites badly miscalculated America's willingness to shoulder forever global burdens to which the American people saw no connection to the national interest. They overestimated America's ability to fund, simultaneously, a massive welfare-regulatory-administrative state alongside a massive military, diplomatic, intelligence, and foreign aid complex. They placed hugely misguided and destructive bets on globalism and so-called "free trade" that hollowed out the very middle class and industrial base on which American economic and military preeminence depend. They allowed allies and partners to offload the cost of their defense onto the American people, and sometimes to suck us into conflicts and controversies central to their interests but peripheral or irrelevant to our own. And they lashed American policy to a network of international institutions, some of which are driven by outright anti-Americanism and many by a transnationalism that explicitly seeks to dissolve individual state sovereignty. In sum, not only did our elites pursue a fundamentally undesirable and impossible goal, in doing so they undermined the very means necessary to achieve that goal: the character of our nation upon which its power, wealth, and decency were built. [...]

¹ The full document can be found at <https://www.whitehouse.gov/wp-content/uploads/2025/12/2025-National-Security-Strategy.pdf>.



First and foremost, we want the continued survival and safety of the United States as an independent, sovereign republic whose government secures the God-given natural rights of its citizens and prioritizes their well-being and interests.

We want to protect this country, its people, its territory, its economy, and its way of life from military attack and hostile foreign influence, whether espionage, predatory trade practices, drug and human trafficking, destructive propaganda and influence operations, cultural subversion, or any other threat to our nation.

We want full control over our borders, over our immigration system, and over transportation networks through which people come into our country—legally and illegally. We want a world in which migration is not merely “orderly” but one in which sovereign countries work together to stop rather than facilitate destabilizing population flows, and have full control over whom they do and do not admit.

We want a resilient national infrastructure that can withstand natural disasters, resist and thwart foreign threats, and prevent or mitigate any events that might harm the American people or disrupt the American economy. No adversary or danger should be able to hold America at risk.

We want to recruit, train, equip, and field the world’s most powerful, lethal, and technologically advanced military to protect our interests, deter wars, and—if necessary—win them quickly and decisively, with the lowest possible casualties to our forces. And we want a military in which every single service member is proud of their country and confident in their mission.

We want the world’s most robust, credible, and modern nuclear deterrent, plus next-generation missile defenses—including a Golden Dome for the American homeland—to protect the American people, American assets overseas, and American allies.

We want the world’s strongest, most dynamic, most innovative, and most advanced economy. The U.S. economy is the bedrock of the American way of life, which promises and delivers widespread and broad-based prosperity, creates upward mobility, and rewards hard work. Our economy is also the bedrock of our global position and the necessary foundation of our military.

We want the world’s most robust industrial base. American national power depends on a strong industrial sector capable of meeting both peacetime and wartime production demands. That requires not only direct defense industrial production capacity but also defense-related production capacity. Cultivating American industrial strength must become the highest priority of national economic policy.

We want the world's most robust, productive, and innovative energy sector—one capable not just of fueling American economic growth but of being one of America's leading export industries in its own right.

We want to remain the world's most scientifically and technologically advanced and innovative country, and to build on these strengths. And we want to protect our intellectual property from foreign theft. America's pioneering spirit is a key pillar of our continued economic dominance and military superiority; it must be preserved.

We want to maintain the United States' unrivaled "soft power" through which we exercise positive influence throughout the world that furthers our interests. In doing so, we will be unapologetic about our country's past and present while respectful of other countries' differing religions, cultures, and governing systems. "Soft power" that serves America's true national interest is effective only if we believe in our country's inherent greatness and decency.

Finally, we want the restoration and reinvigoration of American spiritual and cultural health, without which long-term security is impossible. We want an America that cherishes its past glories and its heroes, and that looks forward to a new golden age. We want a people who are proud, happy, and optimistic that they will leave their country to the next generation better than they found it. We want a gainfully employed citizenry—with no one sitting on the sidelines—who take satisfaction from knowing that their work is essential to the prosperity of our nation and to the well-being of individuals and families. [...]

- We want to ensure that the Western Hemisphere remains reasonably stable and well-governed enough to prevent and discourage mass migration to the United States; we want a Hemisphere whose governments cooperate with us against narco-terrorists, cartels, and other transnational criminal organizations; we want a Hemisphere that remains free of hostile foreign incursion or ownership of key assets, and that supports critical supply chains; and we want to ensure our continued access to key strategic locations. In other words, we will assert and enforce a "Trump Corollary" to the Monroe Doctrine;
- We want to halt and reverse the ongoing damage that foreign actors inflict on the American economy while keeping the Indo-Pacific free and open, preserving freedom of navigation in all crucial sea lanes, and maintaining secure and reliable supply chains and access to critical materials;
- We want to support our allies in preserving the freedom and security of Europe, while restoring Europe's civilizational self-confidence and Western identity;
- We want to prevent an adversarial power from dominating the Middle East, its oil and gas supplies, and the chokepoints through which they pass while avoiding the "forever wars" that bogged us down in that region at great cost; and

- We want to ensure that U.S. technology and U.S. standards—particularly in AI, biotech, and quantum computing—drive the world forward. [...]

America retains the world's most enviable position, with world-leading assets, resources, and advantages, including:

- A still nimble political system that can course correct;
- The world's single largest and most innovative economy, which both generates wealth we can invest in strategic interests and provides leverage over countries that want access to our markets;
- The world's leading financial system and capital markets, including the dollar's global reserve currency status;
- The world's most advanced, most innovative, and most profitable technology sector, which undergirds our economy, provides a qualitative edge to our military, and strengthens our global influence;
- The world's most powerful and capable military;
- A broad network of alliances, with treaty allies and partners in the world's most strategically important regions;
- An enviable geography with abundant natural resources, no competing powers physically dominant in our Hemisphere, borders at no risk of military invasion, and other great powers separated by vast oceans;
- Unmatched "soft power" and cultural influence; and
- The courage, willpower, and patriotism of the American people.

In addition, through President Trump's robust domestic agenda, the United States is:

- Re-instilling a culture of competence, rooting out so-called "DEI" and other discriminatory and anti-competitive practices that degrade our institutions and hold us back;
- Unleashing our enormous energy production capacity as a strategic priority to fuel growth and innovation, and to bolster and rebuild the middle class;
- Reindustrializing our economy, again to further support the middle class and control our own supply chains and production capacities;
- Returning economic freedom to our citizens via historic tax cuts and deregulatory efforts, making the United States the premier place to do business and invest capital; and
- Investing in emerging technologies and basic science, to ensure our continued prosperity, competitive advantage, and military dominance for future generations. [...]

President Trump's foreign policy is pragmatic without being "pragmatist," realistic without being "realist," principled without being "idealistic," muscular without being "hawkish," and

restrained without being “dovish.” It is not grounded in traditional, political ideology. It is motivated above all by what works for America—or, in two words, “America First.” [...]

Stopping regional conflicts before they spiral into global wars that drag down whole continents is worthy of the Commander-in-Chief’s attention, and a priority for this administration. A world on fire, where wars come to our shores, is bad for American interests. [...]

- **The Era of Mass Migration Is Over** – Who a country admits into its borders—in what numbers and from where—will inevitably define the future of that nation. Any country that considers itself sovereign has the right and duty to define its future. [...] The era of mass migration must end. Border security is the primary element of national security. [...]
- **Protection of Core Rights and Liberties** – The purpose of the American government is to secure the God-given natural rights of American citizens. To this end, departments and agencies of the United States Government have been granted fearsome powers. Those powers must never be abused, whether under the guise of “deradicalization,” “protecting our democracy,” or any other pretext. When and where those powers are abused, abusers must be held accountable. [...] We will oppose elite-driven, anti-democratic restrictions on core liberties in Europe, the Anglosphere, and the rest of the democratic world, especially among our allies.
- **Burden-Sharing and Burden-Shifting** – The days of the United States propping up the entire world order like Atlas are over. We count among our many allies and partners dozens of wealthy, sophisticated nations that must assume primary responsibility for their regions and contribute far more to our collective defense. [...] The model will be targeted partnerships that use economic tools to align incentives, share burdens with like-minded allies, and insist on reforms that anchor long-term stability. This strategic clarity will allow the United States to counter hostile and subversive influences efficiently while avoiding the overextension and diffuse focus that undermined past efforts. The United States will stand ready to help—potentially through more favorable treatment on commercial matters, technology sharing, and defense procurement—those countries that willingly take more responsibility for security in their neighborhoods and align their export controls with ours.
- **Realignment Through Peace** – Seeking peace deals at the President’s direction, even in regions and countries peripheral to our immediate core interests, is an effective way to increase stability, strengthen America’s global influence, realign countries and regions toward our interests, and open new markets. The resources required boil down to presidential diplomacy, which our great nation can embrace only with competent leadership. The dividends—an end to longstanding conflicts, lives saved, new friends made—can vastly outweigh the relatively minor costs of time and attention.

- **Economic Security** – Finally, because economic security is fundamental to national security, we will work to further strengthen the American economy, with emphases on:
 - **Balanced Trade** [...]
 - **Securing Access to Critical Supply Chains and Materials** [...]
 - **Reindustrialization** [...]
 - **Reviving our Defense Industrial Base** [...]
 - **Energy Dominance** [...]
 - **Preserving and Growing America's Financial Sector Dominance** [...]

The purpose of national security policy is the protection of core national interests—some priorities transcend regional confines. For instance, terrorist activity in an otherwise less consequential area might force our urgent attention. But leaping from that necessity to sustained attention to the periphery is a mistake.

A. Western Hemisphere: The Trump Corollary to the Monroe Doctrine

After years of neglect, the United States will reassert and enforce the Monroe Doctrine to restore American preeminence in the Western Hemisphere, and to protect our homeland and our access to key geographies throughout the region. We will deny non-Hemispheric competitors the ability to position forces or other threatening capabilities, or to own or control strategically vital assets, in our Hemisphere. [...]

Our goals for the Western Hemisphere can be summarized as “Enlist and Expand.” We will *enlist* established friends in the Hemisphere to control migration, stop drug flows, and strengthen stability and security on land and sea. We will *expand* by cultivating and strengthening new partners while bolstering our own nation's appeal as the Hemisphere's economic and security partner of choice. [...]

The United States must reconsider our military presence in the Western Hemisphere. This means four obvious things:

- A readjustment of our global military presence to address urgent threats in our Hemisphere, especially the missions identified in this strategy, and away from theaters whose relative import to American national security has declined in recent decades or years;
- A more suitable Coast Guard and Navy presence to control sea lanes, to thwart illegal and other unwanted migration, to reduce human and drug trafficking, and to control key transit routes in a crisis;
- Targeted deployments to secure the border and defeat cartels [...]
- Establishing or expanding access in strategically important locations. [...]

B. Asia: Win the Economic Future, Prevent Military Confrontation

Leading from a Position of Strength

President Trump single-handedly reversed more than three decades of mistaken American assumptions about China: namely, that by opening our markets to China, encouraging American business to invest in China, and outsourcing our manufacturing to China, we would facilitate China's entry into the so-called "rules-based international order." This did not happen. China got rich and powerful, and used its wealth and power to its considerable advantage. [...]

The Indo-Pacific is already the source of almost half the world's GDP based on purchasing power parity (PPP), and one third based on nominal GDP. That share is certain to grow over the 21st century. Which means that the Indo-Pacific is already and will continue to be among the next century's key economic and geopolitical battlegrounds. To thrive at home, we must successfully compete there—and we are. [...]

Economics: The Ultimate Stakes [...]

China adapted to the shift in U.S. tariff policy that began in 2017 in part by strengthening its hold on supply chains, especially in the world's low- and middle-income (i.e., per capita GDP \$13,800 or less) countries—among the greatest economic battlegrounds of the coming decades. China's exports to low-income countries doubled between 2020 and 2024. The United States imports Chinese goods indirectly from middlemen and Chinese-built factories in a dozen countries, including Mexico. China's exports to low-income countries are today nearly four times its exports to the United States. [...]

Going forward, we will rebalance America's economic relationship with China, prioritizing reciprocity and fairness to restore American economic independence. Trade with China should be balanced and focused on non-sensitive factors. [...]

Importantly, this must be accompanied by a robust and ongoing focus on deterrence to prevent war in the Indo-Pacific. This combined approach can become a virtuous cycle as strong American deterrence opens up space for more disciplined economic action, while more disciplined economic action leads to greater American resources to sustain deterrence in the long term.

To accomplish this, several things are essential.

First, the United States must protect and defend our economy and our people from harm, from any country or source. This means ending (among other things):

- Predatory, state-directed subsidies and industrial strategies;

- Unfair trading practices;
- Job destruction and deindustrialization;
- Grand-scale intellectual property theft and industrial espionage;
- Threats against our supply chains that risk U.S. access to critical resources, including minerals and rare earth elements;
- Exports of fentanyl precursors that fuel America's opioid epidemic; and
- Propaganda, influence operations, and other forms of cultural subversion.

Second, the United States must work with our treaty allies and partners—who together add another \$35 trillion in economic power to our own \$30 trillion national economy (together constituting more than half the world economy)—to counteract predatory economic practices and use our combined economic power to help safeguard our prime position in the world economy and ensure that allied economies do not become subordinate to any competing power. We must continue to improve commercial (and other) relations with India to encourage New Delhi to contribute to Indo-Pacific security, including through continued quadrilateral cooperation with Australia, Japan, and the United States (“the Quad”). Moreover, we will also work to align the actions of our allies and partners with our joint interest in preventing domination by any single competitor nation.

The United States must at the same time invest in research to preserve and advance our advantage in cutting-edge military and dual-use technology, with emphasis on the domains where U.S. advantages are strongest. These include undersea, space, and nuclear, as well as others that will decide the future of military power, such as AI, quantum computing, and autonomous systems, plus the energy necessary to fuel these domains.

Additionally, the U.S. Government's critical relationships with the American private sector help maintain surveillance of persistent threats to U.S. networks, including critical infrastructure. [...]

In addition to maintaining economic preeminence and consolidating our alliance system into an economic group, the United States must execute robust diplomatic and private sector-led economic engagement in those countries where the majority of global economic growth is likely to occur over the coming decades.

America First diplomacy seeks to rebalance global trade relationships. We have made clear to our allies that America's current account deficit is unsustainable. We must encourage Europe, Japan, Korea, Australia, Canada, Mexico, and other prominent nations in adopting trade policies that help rebalance China's economy toward household consumption, because Southeast Asia, Latin America, and the Middle East cannot alone absorb China's enormous excess capacity. The exporting nations of Europe and Asia can also look to middle-income countries as a limited but growing market for their exports.

China's state-led and state-backed companies excel in building physical and digital infrastructure, and China has recycled perhaps \$1.3 trillion of its trade surpluses into loans to its trading partners. America and its allies have not yet formulated, much less executed, a joint plan for the so-called "Global South," but together possess tremendous resources. [...]

Deterring Military Threats

In the long term, maintaining American economic and technological preeminence is the surest way to deter and prevent a large-scale military conflict.

A favorable conventional military balance remains an essential component of strategic competition. There is, rightly, much focus on Taiwan, partly because of Taiwan's dominance of semiconductor production, but mostly because Taiwan provides direct access to the Second Island Chain and splits Northeast and Southeast Asia into two distinct theaters. Given that one-third of global shipping passes annually through the South China Sea, this has major implications for the U.S. economy. Hence deterring a conflict over Taiwan, ideally by preserving military overmatch, is a priority. We will also maintain our longstanding declaratory policy on Taiwan, meaning that the United States does not support any unilateral change to the status quo in the Taiwan Strait.

We will build a military capable of denying aggression anywhere in the First Island Chain. But the American military cannot, and should not have to, do this alone. Our allies must step up and spend—and more importantly do—much more for collective defense. America's diplomatic efforts should focus on pressing our First Island Chain allies and partners to allow the U.S. military greater access to their ports and other facilities, to spend more on their own defense, and most importantly to invest in capabilities aimed at deterring aggression. [...]

A related security challenge is the potential for any competitor to control the South China Sea. [...] Strong measures must be developed along with the deterrence necessary to keep those lanes open, free of "tolls," and not subject to arbitrary closure by one country. This will require not just further investment in our military—especially naval—capabilities, but also strong cooperation with every nation that stands to suffer, from India to Japan and beyond, if this problem is not addressed.

Given President Trump's insistence on increased burden-sharing from Japan and South Korea, we must urge these countries to increase defense spending, with a focus on the capabilities—including new capabilities—necessary to deter adversaries and protect the First Island Chain. We will also harden and strengthen our military presence in the Western Pacific, while in our dealings with Taiwan and Australia we maintain our determined rhetoric on increased defense spending. [...]

C. Promoting European Greatness [...]

Continental Europe has been losing share of global GDP—down from 25 percent in 1990 to 14 percent today—partly owing to national and transnational regulations that undermine creativity and industriousness.

But this economic decline is eclipsed by the real and more stark prospect of civilizational erasure. [...]

Should present trends continue, the continent will be unrecognizable in 20 years or less. As such, it is far from obvious whether certain European countries will have economies and militaries strong enough to remain reliable allies. Many of these nations are currently doubling down on their present path. We want Europe to remain European, to regain its civilizational self-confidence, and to abandon its failed focus on regulatory suffocation.

This lack of self-confidence is most evident in Europe's relationship with Russia. European allies enjoy a significant hard power advantage over Russia by almost every measure, save nuclear weapons. As a result of Russia's war in Ukraine, European relations with Russia are now deeply attenuated, and many Europeans regard Russia as an existential threat. Managing European relations with Russia will require significant U.S. diplomatic engagement, both to reestablish conditions of strategic stability across the Eurasian landmass, and to mitigate the risk of conflict between Russia and European states.

It is a core interest of the United States to negotiate an expeditious cessation of hostilities in Ukraine, in order to stabilize European economies, prevent unintended escalation or expansion of the war, and reestablish strategic stability with Russia, as well as to enable the post-hostilities reconstruction of Ukraine to enable its survival as a viable state.

The Ukraine War has had the perverse effect of increasing Europe's, especially Germany's, external dependencies. Today, German chemical companies are building some of the world's largest processing plants in China, using Russian gas that they cannot obtain at home. The Trump Administration finds itself at odds with European officials who hold unrealistic expectations for the war perched in unstable minority governments, many of which trample on basic principles of democracy to suppress opposition. A large European majority wants peace, yet that desire is not translated into policy, in large measure because of those governments' subversion of democratic processes. This is strategically important to the United States precisely because European states cannot reform themselves if they are trapped in political crisis. [...]

American diplomacy should continue to stand up for genuine democracy, freedom of expression, and unapologetic celebrations of European nations' individual character and history. America encourages its political allies in Europe to promote this revival of spirit, and

the growing influence of patriotic European parties indeed gives cause for great optimism. [...]

Over the long term, it is more than plausible that within a few decades at the latest, certain NATO members will become majority non-European. As such, it is an open question whether they will view their place in the world, or their alliance with the United States, in the same way as those who signed the NATO charter.

Our broad policy for Europe should prioritize:

- Reestablishing conditions of stability within Europe and strategic stability with Russia;
- Enabling Europe to stand on its own feet and operate as a group of aligned sovereign nations, including by taking primary responsibility for its own defense, without being dominated by any adversarial power;
- Cultivating resistance to Europe's current trajectory within European nations;
- Opening European markets to U.S. goods and services and ensuring fair treatment of U.S. workers and businesses;
- Building up the healthy nations of Central, Eastern, and Southern Europe through commercial ties, weapons sales, political collaboration, and cultural and educational exchanges;
 - Ending the perception, and preventing the reality, of NATO as a perpetually expanding alliance; and
- Encouraging Europe to take action to combat mercantilist overcapacity, technological theft, cyber espionage, and other hostile economic practices.

D. The Middle East: Shift Burdens, Build Peace

For half a century at least, American foreign policy has prioritized the Middle East above all other regions. The reasons are obvious: the Middle East was for decades the world's most important supplier of energy, was a prime theater of superpower competition, and was rife with conflict that threatened to spill into the wider world and even to our own shores.

Today, at least two of those dynamics no longer hold. Energy supplies have diversified greatly, with the United States once again a net energy exporter. Superpower competition has given way to great power jockeying, in which the United States retains the most enviable position, reinforced by President Trump's successful revitalization of our alliances in the Gulf, with other Arab partners, and with Israel. [...]

Middle East partners are demonstrating their commitment to combatting radicalism, a trendline American policy should continue to encourage. But doing so will require dropping

America's misguided experiment with hectoring these nations—especially the Gulf monarchies—into abandoning their traditions and historic forms of government. We should encourage and applaud reform when and where it emerges organically, without trying to impose it from without. [...]

America will always have core interests in ensuring that Gulf energy supplies do not fall into the hands of an outright enemy, that the Strait of Hormuz remain open, that the Red Sea remain navigable, that the region not be an incubator or exporter of terror against American interests or the American homeland, and that Israel remain secure. We can and must address this threat ideologically and militarily without decades of fruitless “nation building” wars. We also have a clear interest in expanding the Abraham Accords to more nations in the region and to other countries in the Muslim world.

But the days in which the Middle East dominated American foreign policy in both long-term planning and day-to-day execution are thankfully over—not because the Middle East no longer matters, but because it is no longer the constant irritant, and potential source of imminent catastrophe, that it once was. It is rather emerging as a place of partnership, friendship, and investment—a trend that should be welcomed and encouraged. In fact, President Trump's ability to unite the Arab world at Sharm el-Sheikh in pursuit of peace and normalization will allow the United States to finally prioritize American interests.

E. Africa [...]

Opportunities for engagement could include negotiating settlements to ongoing conflicts (e.g., DRC-Rwanda, Sudan), and preventing new ones (e.g., Ethiopia-Eritrea-Somalia), as well as action to amend our approach to aid and investment (e.g., the Africa Growth and Opportunity Act). And we must remain wary of resurgent Islamist terrorist activity in parts of Africa while avoiding any long-term American presence or commitments.

The United States should transition from an aid-focused relationship with Africa to a trade- and investment-focused relationship, favoring partnerships with capable, reliable states committed to opening their markets to U.S. goods and services. An immediate area for U.S. investment in Africa, with prospects for a good return on investment, include the energy sector and critical mineral development. Development of U.S.-backed nuclear energy, liquid petroleum gas, and liquified natural gas technologies can generate profits for U.S. businesses and help us in the competition for critical minerals and other resources.

Document No. 2. Senate Armed Services Committee, Hearing to Consider the Nomination of Honorable Robert P. Kadlec to be Assistant Secretary of Defense for Nuclear Deterrence, Chemical, and Biological Defense Policy and Programs, November 4, 2025 (select excerpts)²

Testimony

If confirmed, I intend to pursue 4 priorities to achieve their objectives: 1. Maintain and sustain the current nuclear Triad, 2. Modernize our nuclear command and control. 3. Accelerate the development and deployment of the Sentinel ICBM [intercontinental-range ballistic missile], B-21 bomber, Columbia class submarine, and other critical nuclear deterrent capabilities, as well as supporting modernization of NNSA's [National Nuclear Security Administration's] nuclear enterprise. 4. Deploy credible capabilities to deter adversary biological weapons use. [...]

The Congressionally mandated Strategic Posture Commission [(SPC)] noted that for the first time, we confront two peer nuclear adversaries who are intent on replacing the US-led international order. The risk of simultaneous wars with multiple adversaries each possessing advanced conventional, space, cyber, nuclear and chem-bio capabilities challenge our current deterrent posture requiring adjustments in our nuclear forces, including potentially new or different capabilities. The priorities of sustaining our current nuclear triad, accelerating deployment of future capabilities, ensuring effective command and control, modernizing the nuclear enterprise and creating a credible deterrent against biological attacks are all urgent and vital for America's future security. As the Commission noted addressing gaps and identifying opportunities may require additional deterrent capabilities. [...]

Advance Policy Questions

16. What do you consider to be the most significant challenges you would face if confirmed as the ASD(NDCB) [Assistant Secretary of Defense for Nuclear Deterrence, Chemical, and Biological Defense Policy and Programs]?

The most significant challenge will be to ensure the effectiveness and credibility of currently fielded nuclear forces as the United States completes its modernization of the nuclear triad. Another significant challenge will be addressing the rapidly evolving biothreat landscape, which is complicated by the dual-use nature of biotechnology and rapid advancements in artificial intelligence and high-performance computing. These challenges are compounded by the need to remain responsive to an increasingly challenging security environment. [...]

² The witness testimony and the full text of advanced policy questions can be found at https://www.armed-services.senate.gov/imo/media/doc/kadlec_opening_statement.pdf and https://www.armed-services.senate.gov/imo/media/doc/kadlec_apq.pdf.

18. If confirmed, specifically what actions would you take, in what order of priority, and on what timeline—to address each of these challenges?

If confirmed, my priority will be to work with my team and across the Department to review all nuclear modernization and countering WMD [weapons of mass destruction] programs to identify opportunities to accelerate, streamline, or otherwise improve our ability to deliver key systems as quickly and efficiently as possible. Second, I will work with the Under Secretary of War for Policy and across the Policy organization to align ND-CBD efforts with the forthcoming National Security and National Defense Strategies, especially to focus on addressing the deterrence challenges created by China's emergence as a major nuclear power. Third, in my capacity as Staff Director of the Nuclear Weapons Council, I will work to ensure alignment between DoW [Department of War] requirements and DOE/NNSA's [Department of Energy/NNSA's] warhead programs and infrastructure projects, and to instill a strong sense of urgency to delivering capabilities as quickly as possible to address the emerging security environment. Finally, I will prioritize working to ensure the ND-CBD organization is postured to advise the Secretary and Deputy Secretary on delivery of effective nuclear deterrence and defense against chemical and biological weapons on behalf of the President, the Secretary, and the American people. [...]

I agree that nuclear deterrence is a top priority for the Department. U.S. nuclear forces underpin our entire deterrence and defense posture. It is critical that the DoW fields a safe, secure, and effective nuclear deterrent to enable the Department to deter and defeat aggression against our vital interests. [...]

China, Russia, and North Korea have expanded and modernized their nuclear capabilities. These improvements, which include advances in warheads, delivery systems, and command and control systems, pose an increasingly severe threat to the United States and its allies and partners. My understanding is that the pace of China's nuclear force growth has exceeded U.S. expectations. [...]

I am closely watching China's emergence as a major nuclear power, alongside China's massive conventional military buildup. China's nuclear forces are a crucial part of its strategy to become the leading power in the Western Pacific. China's opaque and rapid nuclear build up requires that the United States think differently about how it deters and defeats aggression against our vital interests in the Indo-Pacific. The Department must ensure that U.S. nuclear forces are postured to deter China from nuclear escalation and provide the President with a range of credible options, while simultaneously deterring strategic attacks from other nuclear threat actors, including Russia and North Korea. If confirmed, I will review the Department's work thus far to grapple with this challenge and identify any necessary adjustments to our nuclear strategy or posture, aligned with the forthcoming National Defense Strategy.

22. Do you believe the United States needs to adopt a counterforce strategy that allows it to hold at risk both Russia and China's nuclear forces simultaneously?

Deterrence depends upon holding at risk what the adversary values and I understand the capability to hold at risk adversary nuclear forces has been a key element of U.S. strategy for many years. While I believe there continues to be a role for targeting adversary nuclear forces within the United States's nuclear strategy, I am not yet in a position to assess the specific strategy the United States should pursue. [...]

25. Do you believe our current deterrence policy and force structure effectively accounts for two near peer nuclear competitors? If not, do you believe the U.S. will require additional capabilities, a numerically larger force than exists today, or a combination of both?

I believe that our strategic forces must be able to deter strategic attacks simultaneously from multiple nuclear-armed powers, especially the two most capable ones. [...]

27. What is your assessment of our regional and extended deterrent capabilities in Europe and Asia and our allies views on them?

I believe our nuclear deterrent remains highly credible to both adversaries and allies. However, I also believe that the United States needs to have credible nuclear response options for a theater conflict below the strategic-level. Both China and Russia are fielding highly capable arsenals of theater-range nuclear capabilities that threaten U.S. forces, allies, and other vital interests in Europe and Asia. My understanding is that our capabilities in this area have atrophied since the end of the Cold War. [...]

28. What are your views on the value of U.S. nuclear extended deterrence assurances as a component of our nonproliferation efforts, particularly in the Indo-Pacific region?

U.S. extended nuclear deterrence has long been critical to deterring aggression against allies and partners, protecting U.S. interests abroad, and preventing the proliferation of nuclear weapons around the world. Credible extended deterrence continues to be an important and effective tool for our security and for preventing the further spread of nuclear weapons.

29. Do you believe the U.S. should work to further deepen cooperation on nuclear operations and policy with allies in the Indo-Pacific region to offset increased dangers from China's, Russia's, and North Korea's rapidly expanding arsenals and increasingly aggressive behaviors?

I believe the United States should strengthen cooperation with our Indo-Pacific allies to address the unprecedented challenges in the region and have frank and open conversations about how to address these threats through appropriate burden sharing.

30. Do you believe the U.S. should consider stationing nuclear forces in the Asia-Pacific?

U.S. nuclear forces anchor our ability to deter strategic attacks and contribute to our overall defense posture and that of allies. [...]

31. Are there nuclear signals short of the forward deployment of weapons that can be undertaken to strengthen extended deterrence and assurance of U.S. allies in Asia?

My understanding is that the United States regularly conducts extended deterrence dialogues and consultations with our allies in Asia to enhance cooperation to address nuclear threats and demonstrate a commitment to addressing shared nuclear risks. If confirmed, I will review our efforts in this area and determine if additional measures are necessary to sustain the credibility of our extended deterrence. At the same time, it is vitally important that our Asian allies invest more in their own conventional deterrent and defense capabilities.

32. Do you believe the U.S. should allow allies to participate in a nuclear sharing role akin to what NATO allies? Why or why not?

I believe the strength of our alliance system is unmatched and the mix of capabilities depends on unique circumstances of each alliance. If confirmed, I would look at the full range of options to deter nuclear conflict and ensure U.S. allies strengthen their capabilities to complement U.S. extended deterrence.

In December 2020, NATO reaffirmed the Allies' longstanding position that, "as long as nuclear weapons exist, NATO will remain a nuclear alliance."

33. Do you believe this principle requires the United States to continue to deploy nuclear weapons in NATO countries?

As Secretary Hegseth has stated, "the United States remains committed to the NATO alliance and to the defense partnership with Europe, full stop." While Europeans step up and take primary responsibility for their conventional security, the United States will continue to provide critical but more limited support, including our extended nuclear deterrent. U.S. forward deployed nuclear weapons in Europe play a critical role in U.S. security by underpinning extended deterrence as the supreme guarantor of Alliance security.

34. Do you believe additional NATO allies should be allowed to participate in the nuclear sharing role?

If confirmed, I will work with NATO Allies to ensure NATO's nuclear deterrent mission remains credible and effective with the broadest possible participation, within U.S. treaty

obligations. While the United States is committed to providing extended deterrence to NATO, burden sharing in the nuclear mission is an important signal of Alliance resolve.

35. Do you believe the existing NATO nuclear force posture should be reexamined given Russia's reported deployment of tactical weapons into Belarus?

I am not aware of the intelligence, if any, surrounding Russia's reported deployment of tactical nuclear weapons into Belarus. If confirmed, I will review this issue and work closely with all relevant allies to ensure a strong nuclear deterrence posture in NATO commensurate with the evolving nuclear threat from Russia. [...]

36. Do you believe either a sole-purpose or a NFU policy would be appropriate for the United States, and what do you believe would be the implications of such a policy on the credibility of U.S. extended deterrence commitments to our allies?

I do not believe a sole purpose or NFU policy would be advisable, and would advocate against one, if confirmed.

37. Do you believe the U.S. has the necessary capability to destroy adversary command and control facilities, in particular hardened and deeply buried targets?

If confirmed, I will work with Department leadership to immediately review the Department's nuclear programs and capabilities to ensure the Department is taking all necessary steps to hold adversaries at risk. [...]

The 2023 Strategic Posture Commission (SPC) concluded that the U.S. should expedite its ongoing nuclear force modernization activities, modify its strategic nuclear force structure to account for the rapid growth of China's nuclear forces and the unprecedented need to deter two nuclear-armed peer adversaries, and urgently develop additional theater range nuclear options.

39. Do you agree with the recommendations of the SPC regarding U.S. nuclear forces?

The United States faces the real potential of multi-front aggression. The United States must prepare for such conflicts to present our adversaries with a credible deterrent. This includes our nuclear forces, which must deter nuclear and other strategic attacks from all nuclear adversaries. I agree with the SPC that we must have credible response options across the spectrum of conflict, and that we must do more to address the risks that deterrence might fail at the regional level. [...]

The overwhelming majority of U.S. nuclear forces have been extended decades beyond their intended design lives and are nearing the end of their utility. These capabilities must be updated over the next 20 years if the United States is to maintain a viable nuclear deterrent.

41. What is your understanding of the condition of existing Department of Defense nuclear forces?

I have absolute confidence that the U.S. nuclear deterrent is safe, secure, and effective today. However, our nuclear forces are operating well beyond their intended services lives. Modernizing our strategic nuclear deterrent capabilities across the triad, its supporting infrastructure, and production capabilities is critical to maintaining our strategic deterrent against future threats. During this transition from legacy to modern nuclear forces, the United States will also need to identify, assess, and mitigate risks to ensure the effectiveness and credibility of its currently fielded nuclear forces until the modernization of the U.S. nuclear deterrent is complete. If confirmed, I will immediately review the condition of U.S. nuclear forces, the plans and process to sustain those systems and ensure their continued viability, as well as emerging sustainment challenges and risks. [...]

44. In your view, are there other nuclear capabilities or posture adjustments that should be considered to enhance the deterrence of Russia, China, and North Korea, particularly given the pace of expansion in their respective nuclear arsenals?

I agree with Secretary Hegseth's assessment that China, Russia, and North Korea have significantly expanded and modernized their nuclear capabilities. These improvements, which include advances in warheads, delivery systems, and command and control systems, pose an increasingly severe threat to the United States and its allies and partners. If confirmed, I would confer with other Department stakeholders on what additional nuclear posture adjustments would enhance deterrence.

Multiple independent commissions, including congressional commissions on the National Defense Strategy and the Strategic Posture of the United States have highlighted that U.S. defense investments are inadequate for addressing the international security threats facing the United States. These conclusions have been echoed by many members of Congress. In its July 2024 report, the Commission on the National Defense Strategy recommended that Congress provide real growth for defense spending, at an annual average rate of three to five percent above inflation.

45. Do you agree that sustained real growth in the defense budget of at least 3 to 5 percent is necessary to meet global security challenges without incurring significant additional risk?

I support robust defense spending that allows us to meet our National Defense Strategy (NDS). If confirmed, I will advocate for the robust defense spending needed to implement the

NDS that Secretary Hegseth approves. The Department of Defense projected in 2019 that over the planned period of modernization, the sustainment, operations, and modernization of U.S. nuclear forces will account for approximately 6-7 percent of the defense budget. [...]

57. What is your understanding of the condition of NNSA's existing nuclear weapons development, sustainment, and manufacturing capabilities and the associated infrastructure?

As I understand, NNSA's capabilities and infrastructure are sufficient to sustain today's nuclear weapon stockpile. However, there are many key infrastructure shortfalls for meeting Program of Record plans for stockpile modernization. While NNSA is making progress in re-establishing critical processes for producing weapons, increasing production capacity, and reducing risks from infrastructure failures, much work remains to be done. Successful execution of their infrastructure modernization programs will require continuing, long-term funding and support.

58. Do you support the recapitalization of the NNSA's capabilities to design, manufacture, and sustain an effective nuclear weapons stockpile?

Yes, delivering modern infrastructure with the capabilities and capacity necessary to support the stockpile is a critical national security priority. [...]

Arms control, when effective and verifiable, has been a valuable tool for managing competition and international security concerns. In contrast, unverifiable arms control regimes observed by only one party can generate instability.

77. Do you believe that further reductions should be taken only within the context of a formal, verifiable arms control agreement with Russia, China and other nuclear-armed powers?

I support President Trump's efforts to seek a way forward with Russia on strategic arms control and to bring China to the table. I believe that, in general, the United States should pursue arms control when it is in the U.S. national security interest to do so. Specifically, DoW should only support arms control agreements that enhance U.S. security, are stabilizing, and are effectively verifiable. Decisions on the size of the U.S. nuclear arsenal need to account for multiple factors, which I look forward to exploring, if confirmed.

78. Do you believe the security interests of the United States can be advanced by a bilateral arms control treaty with Russia only?

I believe engaging in meaningful dialogue and reciprocal, pragmatic measures can help reduce the risks of nuclear war. I would support any such measures that enhance U.S. security and advance U.S. national interests. I support President Trump's efforts to seek a way forward with Russia on strategic arms control and to bring China to the table.

79. What are your views on the military significance of Russian tactical and theater nuclear forces not covered by the New START Treaty and whether arms control measures can adequately address them?

My understanding is that Russia fields a large and diverse arsenal of theater-range nuclear forces that are not covered by New START, which directly threaten our allies and U.S. forces forward. These capabilities add complexity to our ability to defend U.S. interests in Europe and elsewhere. I believe we should be investigating ways to bring these weapons into a verifiable arms control treaty with Russia. If confirmed, I will work with my colleagues in the Departments of War and State to identify options for arms control for Russian non-strategic nuclear weapons. [...]

80. Do you believe that future arms control agreements should include all types of delivery systems – tactical, theater, and strategic?

I believe that we should be pursuing pragmatic, effectively verifiable arms control for all kinds of nuclear weapons. I am not yet in a position to assess the prospects for an agreement that covers all delivery systems in the near future. I also do not support limits on delivery systems that could hinder our ability to field combat credible conventional forces in support of our defense strategy.

81. Do you believe that future arms control agreements should include both Russia and China?

I support President Trump's efforts to find a way forward on arms control with Russia and to bring China to the table. I believe the United States should be open to arms control with Russia and China if such measures genuinely promote U.S. interests and security and those of our allies. I am not in a position at this stage to assess the likelihood of such measures with Russia and/or China.

82. Should future arms control agreements include the French and United Kingdom?

If confirmed, I would discuss this idea further with my French and UK counterparts to assess if their participation in such agreements is in their national interests and if such agreements support U.S. national interests at this time. I would also weigh potential impacts to other NATO Allies.

83. How should North Korea, Pakistan and India factor into future arms control agreements?

The Administration has been clear about the importance of mitigating the risks of nuclear conflicts. Arms control and nuclear risk reduction measures can serve as critical and

pragmatic tools to help us advance our collective interest in keeping our countries safer from a potential nuclear conflict. [...]

84. What are your views on this approach? How does China's nuclear expansion affect this approach?

China's continued refusal to participate in any nuclear risk reduction measures, coupled with its rapid and opaque nuclear expansion, is destabilizing. [...]

85. What is your current assessment of the New START Treaty and the likelihood of any follow-on nuclear arms control treaties with either Russia or China?

My understanding is that both sides have ceased implementation of the New START Treaty's verification mechanisms, and the United States is unable to confirm that Russia is abiding by all of the Treaty's limits. I believe the United States should be open to arms control with Russia and China if such measures genuinely promote U.S. interests and security and those of our allies. I am not in a position at this stage to assess the likelihood of such measures with Moscow and/or Beijing. I support President Trump's efforts to find a way forward with Russia and China on nuclear arms control and risk reduction.

86. Do you believe that the United States should consider accepting limitations on its missile defense, cyber, space, or conventional power projection capabilities to obtain an agreement with Russia or China on nuclear weapons reductions?

While I believe it is prudent to prepare for all possibilities in negotiations, I am skeptical about such potential constraints on U.S. forces, particularly given the current security environment. [...]

91. What is your assessment of the threat posed by chemical and biological agents to the security interests of the United States and our partners? Where are these threats most acute?

Based on my experience, I believe chemical and biological agents pose an ongoing security threat to the United States and our partners. This threat is the result of compounding advances in science and technology, in addition to our adversaries' actions. Advances in technology have contributed to a rapidly evolving threat landscape. I am deeply concerned by potential ramifications to the Homeland and our allies and partners stemming from the United States' public assessment that multiple countries are in non-compliance with existing treaty obligations under the Chemical Weapons Convention and the Biological Weapons Convention. [...]

102. If confirmed, what would be your priority regions and programs for Cooperative Threat Reduction?

The CTR Program must ensure it is oriented to effectively support Department and Administration priorities. CTR's efforts should be aimed at protecting the warfighter and the Homeland from WMD proliferation threats, with a particular focus on deterring WMD proliferation and employment in the Indo-Pacific region. CTR should also examine what role it could play in preventing the proliferation of WMD into the Western Hemisphere, particularly ways that could threaten the southern U.S. border. The CTR Program needs to emphasize greater burden-sharing with allies and partners in other regions such as Europe, to include leveraging its authority to receive funds from partner governments to execute CWMD projects of mutual national interest.

Document No. 3. Statement, Prime Minister Benjamin Netanyahu, The White House, September 30, 2025³

Mr. President, [...] I believe that today we're taking a critical step towards both ending the war in Gaza and setting the stage for dramatically advancing peace in the Middle East, and I think beyond the Middle East, very important Muslim countries.

I support your plan to end the war in Gaza, which achieves our war aims. It will bring back to Israel all our hostages, dismantle Hamas' military capabilities, end its political rule, and ensure that Gaza never again poses a threat to Israel. [...]

Just a few months ago, in Operation Rising Lion and Operation Midnight Hammer, we struck a decisive blow against Iran's nuclear and ballistic missile program. Your bold decision to send those B2s made the region safer and the world safer.

Now, under your leadership, we're taking the next step to win the war and expand the peace. Your plan is consistent with the five principles my government set for the end of the war and the day after Hamas.

Everybody asks, "What is your plan for the day after Hamas?" Here's our plan. Passed it in the cabinet. All our hostages, both those who are alive and those who died, all of them will return home immediately. Hamas will be disarmed. Gaza will be demilitarized. Israel will retain security responsibility, including a security perimeter for the foreseeable future. And lastly, Gaza will have a peaceful civilian administration that is run neither by Hamas nor by the Palestinian Authority.

³ The full statement can be found at <https://embassies.gov.il/usa/en/news/pm-netanyahu-s-statement-president-donald-trump-white-house-29-sep-2025>.

If Hamas agrees to your plan, Mr. President, the first step will be a modest withdrawal, followed by the release of all our hostages within 72 hours. The next step will be the establishment of an international body charged with fully disarming Hamas and demilitarizing Gaza. [...]

Now, if this international body succeeds, we will have permanently ended the war. Israel will conduct further withdrawals linked to the extent of disarmament and demilitarization, but will remain in the security perimeter for the foreseeable future.

I think we should understand that we're giving everybody a chance to have this done peacefully. Something that will achieve all our war objectives without any further bloodshed. But if Hamas rejects your plan, Mr. President, or if they supposedly accept it and then basically do everything to counter it, then Israel will finish the job by itself. [...]

All these goals must be achieved, because we didn't fight this horrible fight, sacrifice the finest of our young men to have Hamas stay in Gaza and threaten us again and again and again with these horrific massacres.

Mr. President, I was encouraged by your clear statement at the UN [United Nations] against the recognition of a Palestinian state. That would be an outcome that after October 7th would reward terrorists, undermine security, and endanger Israel's very existence.

As for the Palestinian Authority [(PA)], I appreciate your firm position that the PA could have no role whatsoever in Gaza without undergoing a radical and genuine transformation. In your 2020 peace plan, which you mentioned just now, you made clear what that transformation requires. It's not lip service. It's not checking a box. It's a fundamental, genuine, and enduring transformation.

And that means ending "pay to slay," changing the poisonous textbooks that teach hatred to Jews, to Palestinian children, stopping incitement in the media, ending lawfare against Israel at the ICC [(International Criminal Court)], the ICJ [(International Court of Justice)], recognizing the Jewish state, and many, many other reforms.

It won't come as a surprise to you that the vast majority of Israelis have no faith that the PA leopard will change its spots. But rather than wait for this miraculous transformation, your plan provides a practical and realistic path forward for Gaza in the coming years, in which Gaza will be administered neither by Hamas nor the Palestinian Authority, but by those committed to a genuine peace with Israel. [...]

Under your leadership, Mr. President, we can re-energize the Abraham Accords that we forged five years ago. We can expand them to many more Arab and Muslim nations that chose moderation over extremism. [...]

Remember October 7th. And we do. We will never forget the horrors of October 7th. And we will do whatever is necessary to make sure they don't happen again. Since October 7th, Israel's enemies have learned a hard truth. Those who attack us pay a heavy price. But those who partner with us advance progress and security for their peoples. [...]

And I very much appreciate President Trump's proposal to have a trilateral body: the United States, Israel and Qatar, to work out respective grievances. There are quite a few. But if we could try to mitigate them or put it on a different footing, I think that would be good for everyone. [...]

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Document No. 4. Reva Price and Randall Schriver, et al., *Report to Congress of the U.S.-China Economic and Review Commission, "Executive Summary," November 2025 (select excerpts)*⁴

Chapter 1: U.S.-China Economic and Trade Relations (Year in Review)

China's economic system is under serious strain. High debt levels and eroding fiscal capacity have constrained Chinese officials' means to address the domestic slowdown without more serious structural reform, which remains unlikely for political reasons. The result is increasingly a two-speed economy, whereby broader economic growth remains under substantial pressure while priority areas for the Party such as advanced manufacturing continue to see plentiful policy support and access to capital. Domestic consumption remains tepid amid mounting concerns over stagnant wages, unemployment, high household debt, and a weak social safety net. Amid the deflation of the property bubble, manufacturing remains the government's growth driver of choice, even as the measures China is taking to bolster this sector are having an increasingly adverse impact on its trading partners. Facing a glut of manufactured goods and weak domestic demand, Chinese factories are redirecting much of this excess supply abroad, part of a dynamic that is contributing to a "China Shock 2.0."

China faces additional challenges from new U.S. and other tariffs on Chinese exports, sparking it to engage in retaliatory measures while also exposing the interconnected nature of supply chains for critical technologies. Rising economic tensions have collided with mounting concerns over China's growing technological prowess. U.S. measures to limit China's progress, such as bans on advanced semiconductor exports, have been pulled into broader trade negotiations as bargaining chips. China has also employed its own sources of

⁴ The full report can be found at https://www.uscc.gov/sites/default/files/2025-11/2025_Annual_Report_to_Congress.pdf.

leverage, targeting individual U.S. companies with punitive measures and ramping up restrictions on critical minerals exports. As economic relations between the United States and China have worsened, Chinese producers are looking for more receptive markets in third countries. China's manufacturing sector is both globally dominant and increasingly a source of concern among its trading partners, even as Beijing shows little intention of changing course on its market-distorting industrial policies. Therein lies the dilemma: China's self-portrayal as a responsible member of the international economic system is directly at odds with its status as perhaps the world's most structurally unbalanced economy.

Key Findings

- Despite over a decade of pledges to rebalance from export- and investment-led growth toward greater domestic consumption—claims repeated throughout 2025—China's economy has deepened its reliance on export-oriented manufacturing in recent years. Especially as its property crisis deepens, China has doubled down on an economic model based on supply-side support to boost production, often resulting in far more products than domestic demand can absorb, with the intent of becoming the dominant global exporter of all types of manufactured goods and materials.
- China has made limited progress, at best, toward rebalancing its economy to promote domestic consumption as a greater driver of growth. Sluggish financial markets, falling property values, and weak wage growth are all significant headwinds, and the recent modest uptick in consumption indicators is primarily due to temporary measures used to pull forward growth.
- If exports falter and efforts to redirect the economy toward greater domestic consumption remain politically non-viable, China has limited other sources of growth to propel its economy forward without backtracking on its progress to deflate the real estate bubble and control rising levels of debt.
- As we approach the 25th anniversary of China's accession to the WTO [World Trade Organization], China remains a major beneficiary of the global rules-based trading system despite flouting the rules and maintaining an unbalanced, state-led economy fundamentally inconsistent with that system.
- While Chinese officials tout China's openness to foreign investment, the government routinely takes measures adverse to the interests of foreign businesses. Multiple U.S. firms' operations in China have come under threat as a point of leverage in trade negotiations.
- U.S.-China technology competition shapes significant aspects of the U.S.-China economic and security relationship, with global impacts magnified in sectors reliant on advanced semiconductors and artificial intelligence (AI). Chinese companies have made notable progress in these and other key technologies despite U.S. and allied export controls intended to limit China's access to the most advanced technologies.
- China has sought to soften the impact of U.S. tariffs by increasing exports to other countries, while Chinese companies are increasingly offshoring manufacturing

capacity, both to avoid tariffs as well as to ensconce themselves deeper in key supply chains. To seek leverage against the United States, China has implemented retaliatory tariffs and export controls on critical minerals and rare earth magnets. China has also targeted retaliation at specific U.S. firms.

- China continues its efforts to position itself as the reliable partner of choice for trade and investment, particularly with emerging markets. At the same time, a variety of countries, including many of those same emerging market countries, have begun to implement their own tariffs and other barriers to safeguard their manufacturing industries from China's massive excess supply.

Chapter 2: U.S.-China Security and Foreign Affairs (Year in Review)

Over the past year, China has sought to present itself as a responsible world leader despite engaging in a range of destabilizing activities that have undermined global peace and security. General Secretary of the Chinese Communist Party (CCP) Xi Jinping has persisted in challenging U.S. global leadership and asserting China's position on the world stage, including by hosting dozens of world leaders for a Shanghai Cooperation Organization (SCO) summit in Tianjin followed by a military parade in Beijing. China has also escalated its use of gray zone tactics—coercive military, economic, and influence operations short of war—against Taiwan, in the South China Sea, and around Japan's Senkaku Islands. Beyond its own borders, Beijing has continued to stoke violence and instability by supplying dual-use goods to Russia and otherwise helping sustain its war against Ukraine, funding Iran and its terrorist proxies in the Middle East, and intensifying cyberattacks on the United States and countries around the world.

China's efforts to undercut U.S. credibility and advance its own interests overseas have also been supported by its approach to domestic governance. Over the past year, China has deepened its anticorruption campaign with the aim of quashing internal dissent, forged ahead with its military modernization efforts, and continued its longstanding efforts to control religious institutions it sees as fueling separatism and undermining Party rule. Considered in the aggregate, these actions reflect Beijing's continued rapid preparations for the possibility of conflict and its systematic efforts to erode U.S. deterrence across the military, economic, technological, cyber, and diplomatic domains.

Key Findings

- China has used the pretext of a "turbulent" external environment to justify its ongoing campaign to quash internal dissent and enforce absolute political loyalty to the CCP. Over the past year, China has sharply increased spending on domestic public security, punished officials for disciplinary infractions at record rates, and continued to purge senior military leaders perceived as insufficiently loyal.

- Despite purges of key military leaders, China's People's Liberation Army (PLA) significantly advanced its military modernization efforts over the past year—increasing its stockpile of nuclear warheads, introducing new amphibious assault ships and stealth fighter jets, expanding its drone deployment capacity, and enhancing its capability to launch an attack on Taiwan with little advance warning. China is increasingly willing to use PLA capabilities to send political messages, as demonstrated by unprecedented naval live-fire exercises conducted in the Tasman Sea off the coast of Australia and New Zealand.
- Beijing has continued its efforts to construct an alternative world order with itself at the center—symbolized most powerfully in 2025 by images of the leaders of Russia, North Korea, Iran, and about 20 other mostly authoritarian countries gathered behind Xi Jinping at a military parade in Beijing commemorating China's victory in World War II.
- In meetings with leaders from Asia, Africa, and Latin America, China has sought to undermine U.S. credibility and bolster its credentials as a leader of the "Global South" by accusing the United States of disrupting international order while professing its own commitment to free trade, development assistance, and international law—despite often failing to follow through on such promises.
- While claiming to be a source of international stability, China has continued to threaten global security by undertaking gray zone activities in the Indo-Pacific and around the world. China routinely engages in provocative military maneuvers near Taiwan and in the South and East China Seas, has sabotaged critical undersea communications cables near Taiwan and in the Baltic Sea, and has escalated cyberattacks on the United States.
- China has also fanned the flames of conflict by supplying dual-use goods to sustain Russia's war in Ukraine, funding Iran and its terrorist proxies through purchases of sanctioned Iranian oil, and providing North Korea with diplomatic cover and material support that advances its cyber and weapons programs, thereby complicating global efforts to constrain these countries' destabilizing activities.
- Taken together, these actions form a coordinated strategy to prepare China for the possibility of potential conflict while steadily seeking to erode U.S. deterrence and the resilience of allied security networks. [...]

Chapter 3: Axis of Autocracy: China's Revisionist Ambitions with Russia, Iran, and North Korea

China, Russia, Iran, and North Korea are forging closer strategic, military, and economic ties that increase their ability—individually and collectively—to challenge the interests of the United States and its allies and partners around the world. These states share common objectives in undermining U.S. global leadership and elements of the international system

that promote democracy and human rights, while seeking to reshape them to endorse autocratic rule and the use of coercion and military force to advance national interests.

Although the relationships among China, Russia, Iran, and North Korea may not constitute an alliance as traditionally conceived, the partnerships allow the countries to consider the use of force, undertake provocative actions, and otherwise act in ways they could not sustain on their own. This cooperation has intensified since Russia's invasion of Ukraine in 2022, as China, Iran, and North Korea have provided Russia with political, economic, and military support to sustain its war of aggression, allowing it to circumvent U.S. and international sanctions and diplomatic pressure. As the alignment is based more on shared interests and expediency than trust and loyalty, each country may decline to assist meaningfully when counterproductive to their larger objectives, as China and Russia did after the United States struck nuclear facilities in Iran in June.

As the most powerful and systemically integrated of these countries, China has been the "decisive enabler" of this group and its destabilizing activities. By cooperating with—and legitimizing—these heavily sanctioned countries, Beijing has developed significant leverage over them, effectively casting them as junior partners in the relationship. While this dynamic has generated some underlying friction, the advantages gained from their collective power have outweighed the disadvantages. To respond to this increasing alignment among China, Russia, Iran, and North Korea, the United States must work in concert with allies and partners to deter destabilizing activities and prepare to respond to multiple potential regional flashpoints. Unfortunately, the necessity to confront this challenge has come at a time when growing divisions within many democratic societies have undermined their willingness and ability to act in a concerted fashion to resist these efforts.

Key Findings

- China, Russia, Iran, and North Korea are forging closer strategic, military, and economic ties that increase their ability—individually and collectively—to challenge the strategic interests of the United States and its allies. This cooperation is rooted in a shared desire to undermine U.S. global leadership and reshape elements of the rules-based international order, including concepts of sovereign equality, peaceful resolution of conflict, and respect for human rights. Instead, the countries seek an order that favors autocratic governance and their capacity to extend their regional spheres of influence.
- While China, Russia, Iran, and North Korea individually pose a significant threat to U.S. interests, their growing cooperation collectively magnifies the challenge. Each is emboldened to undertake actions it could not sustain on its own, and their cooperative efforts make it far more difficult to secure U.S. national security, economic prosperity, and peace and stability around the world.

- Cooperation among the “axis” countries has deepened since Russia’s full-scale invasion of Ukraine in 2022, as Russia has drawn on China, Iran, and North Korea to support its war efforts and to help it overcome the subsequent international condemnation and sanctions. For example, China-Russia bilateral trade has increased 66.7 percent since 2021. Each axis country has also benefited in different ways from its support to Moscow.
- China has played the central diplomatic, economic, and financial role in this informal alignment. These relationships have become increasingly asymmetric, with China effectively casting the others as junior partners. While this dynamic has generated some underlying friction, such tensions have largely been mitigated by shared interests and mutual benefits.
- As the alignment is based more on shared interests and expediency than trust and binding obligation, each country has freedom of action and the ability to decline to participate in a conflict. This flexibility was evident in the failure of China and Russia to provide support to Iran after the United States struck its nuclear facilities in June.
- China’s preference for flexible partnerships over formal alliances reflects its opportunistic approach to diplomacy, in which it seeks to take advantage of a relationship that serves its interests while avoiding entanglements that do not benefit it. Beijing seeks to have it both ways—cooperating closely with these partners that defy international norms and institutions while simultaneously trying to promote an image as a responsible stakeholder to the broader international community that values those norms and institutions.
- China’s deepening cooperation with Russia, Iran, and North Korea raises significant concerns for Indo-Pacific security. Their coordination increases the risk of opportunistic aggression, a situation in which one regional conflict creates an opening for another actor to take advantage of the United States’ diverted attention and resources to launch operations elsewhere. In a Taiwan contingency, such dynamics could force the United States to face tough choices on escalation and resource allocation. The collaboration among these powers substantially increases the risk of regional conflicts transforming into broader global crises.
- China is the major trade and investment partner for these countries, helping them mitigate the adverse effects of U.S. and multilateral sanctions. Chinese entities have been instrumental in facilitating circumvention of export controls. China’s opaque financial system has been vital in money laundering and sanctions evasion by Russian, Iranian, and North Korean agents. Together, China’s policies have provided a lifeline that has allowed these countries access to the resources, technologies, and dual-use equipment needed to stay in power and continue destabilizing activities.
- The sum of China’s sanctions and export control evasion activities is greater than the individual components. China’s role as a hub for a diverse array of countries’ sanctions evasion activities effectively allows for pooling of resources and economies of scale for companies and service providers that facilitate sanctions evasion. The network

effect of Chinese and non-Chinese actors creates shared learning opportunities about evasion tactics, presenting new challenges for sanctions strategy and enforcement.

Chapter 4: Crossroads of Competition: China and Southeast Asia

[...] Beijing has long viewed Southeast Asia as its own “backyard” and has sought to establish economic and military dominance in the region as part of its overall strategy for weakening U.S. power in the Indo-Pacific. China has made large and sustained investments in expanding high-level diplomacy, security relationships, soft power programs, and influence operations in Southeast Asia. China’s goal is to entrench itself as the regional hegemon while undermining the United States’ reputation with both policymakers and the publics in Southeast Asian countries. On the military front, China has pursued access to bases and dual-use facilities in Southeast Asia while deploying aggressive gray zone tactics to advance its unfounded territorial claims in the South China Sea—risking embroiling the region in a devastating military conflict. At the same time, China has sought to expand its cooperation with Southeast Asian countries on non-traditional security issues such as transnational crime as a means to export authoritarian policing practices and expand its security influence in the region.

Beijing has also amassed significant economic leverage in the region. China is Southeast Asia’s largest trading partner, and countries in the region have been among the top destinations for China’s Belt and Road Initiative (BRI) projects. Chinese companies have invested heavily in the region’s critical infrastructure, including telecommunications equipment, electrical grids, data centers, and undersea cables, exposing Southeast Asian countries and—potentially—U.S. firms and military assets in the region to data security and sabotage risks. China’s efforts in Southeast Asia—alongside its campaign to erode U.S. partnerships and gain access to dual-use infrastructure in the Pacific Islands—threaten the United States’ ability to protect its economic and security interests throughout the Indo-Pacific region.

Key Findings

- China views establishing regional economic and military hegemony in Southeast Asia as core to its strategy to undermine U.S. power in the Indo-Pacific. China’s overarching goals in the region include full control of the South China Sea, expanding access to basing and dual-use infrastructure for its military, guaranteeing the People’s Liberation Army (PLA) Navy’s access to crucial sea lanes, providing land access to the Indian Ocean around the chokepoint of the Strait of Malacca, and keeping Southeast Asian markets open to Chinese exports and investment. At the same time, China is working to ensure that Southeast Asian countries do not provide access and logistical support to the United States in the event of conflict in the Indo-Pacific.

- Over the past two decades, China has increased its influence in Southeast Asia relative to the United States by devoting extensive resources to diplomacy and soft power initiatives alongside its growing trade and investment ties with the region. More recently, China has sought to exploit changes in U.S. trade policy and foreign aid to present itself as the more reliable partner for regional countries' development goals.
- China has taken increasingly coercive actions to assert its control over the South China Sea, an area of tremendous strategic significance to the country and one of the busiest maritime trade routes in the world. China's aggressive actions in the South China Sea, especially those targeting the Philippines—a country with which the United States has a mutual defense treaty—make the region a potential flashpoint for U.S.-China military conflict.
- In addition to pursuing access to military facilities in Southeast Asia, Beijing has adopted an “inside-out” approach to expanding its security influence in the region that aims to gain a foothold inside the internal security apparatuses of regional countries—which it can then use as a source of leverage to constrain their external security behavior. China has deployed its internal security forces in several Southeast Asian countries—including Burma (Myanmar), Cambodia, and Thailand—in an attempt to gain the allegiance of regional leaders by helping them maintain “regime security” through authoritarian policing and surveillance methods.
- Chinese crime syndicates operate industrial-scale “scam centers” across Southeast Asia that generate tens of billions of dollars in annual revenue by employing forced laborers to conduct online scams under conditions observers have likened to modern slavery. Beijing has selectively cracked down on scam centers that target Chinese victims, leading Chinese criminal organizations to conclude that they can make greater profits with lower risk by targeting the United States instead. According to conservative estimates, Americans lost at least \$5 billion to such scams in 2024. Scam centers have also provided a pretext for China to expand its security presence in the region by pressuring Southeast Asian countries—including U.S. allies such as Thailand—to allow Chinese security personnel to operate on their territory.
- China has expanded its economic ties with Southeast Asia through trade and is growing its foreign direct investment (FDI) in strategic sectors like manufacturing and technology. China is the leading trade partner with ASEAN as a whole and with almost every ASEAN country individually. These extensive trade and investment ties, combined with ASEAN's continued rapid growth and “the ASEAN way” favoring “neutrality” in geopolitics, indicate that Southeast Asia is likely to be the locus of significant economic competition between the United States and China.
- Southeast Asia's trade relationship with China has become increasingly unbalanced in recent years, with the region's trade deficit almost doubling between 2020 and 2024 amid a surge in exports from China. This trend reflects efforts by Chinese exporters to find markets other than the United States, the shifting of intermediate supply chains to avoid tariffs, and an accelerated flow-over from China's massive and

growing domestic excess capacity in many manufacturing industries. Southeast Asia may be ground zero for the second China Shock.

- China's dominance of regional supply chains and control over critical infrastructure provide it considerable leverage to further its strategic aims. Although Southeast Asian countries are cognizant of risks associated with those ties to China, geographic reality and China's position as the largest external trade of China's stated strategy and known activities like People's Republic of China (PRC)-sponsored Volt Typhoon's efforts to pre-position assets in U.S. critical infrastructure. Additionally, China's role in international energy systems expands its geostrategic influence, potentially giving it leverage over U.S. allies and partners or third countries that also depend on China for energy imports or even allow Chinese investment in their energy systems.
- Chinese technology firms are competing with U.S. and European firms for dominance in Southeast Asia's digital infrastructure. The presence of Chinese providers and equipment in telecommunications networks, data centers, and undersea cables exposes host countries to data security and potential sabotage risks. These risks may also impact U.S. firms and military assets operating in the region. [...]

Chapter 7: The Final Frontier: China's Ambitions to Dominate Space

China has embarked on a whole-of-government strategy to become the world's preeminent space power. Beijing views space as a warfighting domain and it seeks to achieve space superiority as a cornerstone of its broader effort to establish information dominance—a prerequisite to controlling the battlespace and gaining operational advantage in future conflicts. To this end, China has rapidly developed, deployed, and operationalized advanced capabilities in space launch, satellites, and ground-based infrastructure spanning its civil, military, and commercial sectors. These advancements are closing the gap in the strategic competition between the United States and China in space.

The People's Liberation Army (PLA) is rapidly expanding its space- and ground-based assets to enhance its battlespace awareness, operational coordination, and capacity for force projection. These capabilities improve China's ability to monitor, target, and challenge U.S. and allied forces across the Indo-Pacific. Over the past decade, China has launched more than 1,000 satellites, dramatically increasing its capacity for persistent surveillance, communications, and precision targeting in support of long-range strike systems. The PLA has also fielded both ground- and space-based counterspace capabilities designed to deter U.S. military action or, in the event of a conflict, degrade U.S. space-enabled operations and power projection. However, as Beijing has expanded its military space capabilities, it has also deepened its own dependency on space assets, potentially creating vulnerabilities of its own. Like any spacefaring nation, this dependency exposes China to counterspace threats that could disrupt its command and control (C2), precision strike, and situational awareness capabilities in a conflict.

Globally, China has harnessed its ambitious space program to deepen relations with developing countries and expand its space architecture in support of military, commercial, and broader strategic gains. China's rapid progress in establishing a private, though state-directed, commercial space ecosystem in just a decade poses a formidable technological, economic, and geostrategic challenge to the United States. Employing state-led industrial policy and drawing on its vast network of state-owned enterprises in aerospace and defense, China has quickly cultivated a dynamic startup sector focused on seeking to rival U.S. firms in commercial launch and satellite networks. With a growing list of civil space achievements, China is aggressively positioning itself as a global leader in space technology and exploration. It is now seeking to reshape international space governance, influence the development of technical standards, and displace the United States as the world's premier space power.

Key Findings

- China is pursuing an aggressive long-term, whole-of-government campaign to expand its space capabilities across military, commercial, and civil domains with the explicit intent of surpassing the United States. These rapid advances in space pose an escalating threat to U.S. national security, intensify U.S.-China strategic competition for international partnerships, and undermine the ability of U.S. commercial firms to compete internationally.
- China views space as a warfighting domain and has invested heavily in weapons and technologies that can degrade, damage, or destroy the U.S. satellites that provide the backbone of the U.S. military's C2 network as well as its targeting system. By seeking to deprive the U.S. military of the use of space-based assets, the PLA aims to deny the United States the ability to employ its advanced military systems, eroding the foundations of U.S. power projection and joint operations.
- Over the past ten years, China has launched a wide variety of satellites on an aggressive schedule, fielding a growing array of space-based capabilities that has strengthened its ability to coordinate its own operations as well as to conduct the persistent surveillance and targeting of U.S. forces. This effort is part of China's broader strategy to achieve space superiority and strengthen its ability to use long-range precision weaponry to target and disrupt the flow of U.S. forces in the Indo-Pacific.
- China is actively leveraging its space capabilities as strategic tools to expand its geopolitical influence. Through offering other countries the use of its satellite networks, launch services, and space infrastructure, China enhances the resilience and global coverage of its space architecture. At the same time, it draws partner nations more deeply into its technological ecosystem, creating long term strategic and economic dependencies on Chinese technology.

- China's military-civil fusion strategy erases the line between military and civilian space activities, enabling systems and technologies such as satellites, robotic arms, and launch systems to serve both commercial ends and PLA objectives. The dual-use nature of these systems—compounded by blurry lines between state-owned enterprises and nominally private firms—makes it difficult to distinguish commercial innovation from military capability.
- In just ten years, China has dramatically transformed an almost non-existent commercial space sector into a thriving, state-orchestrated startup ecosystem. Fueled by strong government backing and industrial prowess, Beijing is now seeking to cultivate national champions that will challenge U.S. space companies on the global stage at a fraction of the cost. This strategy does not just seek innovation and commercial advancement—it seeks to reshape the competitive balance in what will be the most strategic domain of the 21st century.
- China has achieved major civil space milestones, such as the Chang'e-6 mission returning the first samples from the Moon's far side. These "global firsts" are much more than just about science; Beijing uses them to assert technological leadership to reshape global perceptions of power. The competition now extends beyond symbolic milestones to a contest over who will define the rules, infrastructure, and norms governing space. If the United States cedes leadership, China is poised to advance a state-driven, opaque governance model that could embed long-term global reliance on its systems and standards.
- Losing U.S. leadership in space would amount to relinquishing the advantage first secured during the original space race. China seeks to use its rapid advancements in space to position the country as a technological powerhouse and undermine U.S. prestige and economic competitiveness. Falling behind in space would not only diminish U.S. standing, it would threaten U.S. national security, global influence, technological dominance, and commercial competitiveness in the growing space economy. [...]

Chapter 8: China Shock 2.0 [...]

Key Findings

- The world is facing the threat of a China Shock 2.0, whereby overproduction in key industries across China's highly subsidized manufacturing sector floods outward, causing major harm to industries in other countries. China Shock 2.0 is a manifestation of General Secretary of the Chinese Communist Party (CCP) Xi Jinping's economic plan—massive state subsidies and other distortions to boost production, reliance on foreign markets to absorb the excess supply, and minimal attention to addressing continued, structurally weak domestic demand.

- China's export of excess production is undercutting global competitors and winning market share across the value chain, from commodities to intermediate inputs to finished goods. China's economic model increasingly limits other emerging market countries to the lowest-value-added stages of manufacturing.
- [...] Chinese officials are increasingly reluctant to allow domestic firms to transfer technology abroad, lessening benefits to host countries. In addition, Chinese FDI may deepen reliance on Chinese inputs and open the host country to concerns that it serves as a base for Chinese transshipment or tariff evasion.
- In emerging markets, China's surging exports have already led to job losses and factory closures. Emerging market countries have begun to wake up to the threat, employing various tools to push back against China's unfair trade practices and preserve local industry and jobs, with varying degrees of success. International trade agreements have proven less durable protection; in many cases they merely constrain the policy responses of China's trading partners, facilitating the harms from China Shock 2.0, even though China's economic model is inconsistent with the foundational assumptions of those trade agreements.
- China's surging exports of higher-end goods are taking market share from producers in other countries, particularly those in developed countries, including the United States. While emerging markets are imperiled by other aspects of China Shock 2.0, they have little incentive to implement barriers to Chinese exports in those industries that do not compete with local manufacturing. Over time, the long-term harm to U.S. and other non-Chinese producers may be significant. Revenue from foreign markets has helped sustain U.S. economic strength and technological leadership by providing opportunities to scale. Losing this revenue will make it harder to invest in next generation technology. [...]

Chapter 9: Chained to China: Beijing's Weaponization of Supply Chains

China has long made clear its willingness to use its economic heft to advance the Chinese Communist Party's (CCP) strategic interests. In the past five years, however, it has intensified this strategy by prioritizing control over key supply chains. China has already deployed export controls on critical minerals as a coercive tool, including to seek policy concessions in trade negotiations with the United States and to punish other countries. However, critical minerals are just one among several key sectors in which the United States is highly dependent on Chinese sources or could become dependent in the near future.

Other key sectors include active pharmaceutical ingredients (APIs), printed circuit boards (PCBs), and foundational semiconductors [...]. With potentially as much as one-quarter of all APIs sourced from China directly—or indirectly through India—U.S. pharmaceutical supply chains face a vulnerability that could have drastic consequences for the American healthcare system. [...] China's breakneck expansion in production capacity threatens to flood the market and put competitors out of business if left unaddressed. In that case, the United States

may soon depend on access to China's chip industry for producing a wide variety of electronic devices. [...]

Key Findings

- [...] China now appears poised to accelerate its weaponization of supply chain chokepoints, potentially imposing significant short-term costs on the United States and other trade partners, eroding industrial resilience, and constraining U.S. policy choices.
- China's economic model systematically leads to a concentration of global productive capacity in industries targeted for state support, and establishing such chokepoints has been an explicit CCP policy goal for years. China's supply chain leverage in key sectors will continue to grow over time if unchecked. To date, the United States and other countries have taken only limited measures to mitigate this threat. In the short-term, China has already shown an ability and willingness to weaponize its dominant position in critical minerals supply chains, including export restrictions on gallium, germanium, and rare earth magnets in 2023–2025.
- China dominates the supply of APIs and other key starting materials (KSMs)—all of which are essential for U.S. drug supply chains. If Beijing actively restricts U.S. access to these materials, the consequences could be catastrophic for U.S. health security, the broader economy, and potentially military readiness.
- China controls roughly half of global production of PCBs, the essential building blocks of virtually all electronic devices on which integrated circuits and other components are mounted. The United States has lost much of its domestic capacity to produce PCBs and has become heavily reliant on Chinese imports. Losing access to this supply of Chinese PCBs would likely shut down U.S. electronics manufacturing across multiple sectors, including those related to defense, aviation, and critical infrastructure.
- China's coming production surge in foundational semiconductors will pose a serious economic and security threat to the United States and other major semiconductor-producing economies. [...]

Chapter 10: Power Surge: China's Electrification Drive and Push for Global Energy Dominance

[...] Through massive state support and other forms of market distortions, China has become a dominant manufacturer of certain types of equipment at each stage of power generation and consumption. [...] China's role in global energy systems continues to expand through exports of low-carbon energy technologies and electricity grid components and investment in electric vehicle (EV) and battery factories abroad. The appeal of China's energy technology exports and investments is particularly strong in developing countries, where—aside from

offering cheap solutions—China’s technologies may mitigate developmental challenges like rural electrification in areas with weak grid infrastructure. The massive scale of China’s production and investment across all stages of the electric power system has shifted the trajectory of global markets in a direction that benefits Chinese manufacturers.

[...] China supplies over half of the United States’ imports of battery energy storage systems and low-voltage transformers, and it is a leading refiner of almost all the critical minerals necessary for the energy sector. Beijing began the process of weaponizing U.S. dependence on Chinese critical mineral refiners in July 2023 and could potentially use its manufacturing capacity in other critical products and materials as economic leverage. The extensive use of Chinese components in the U.S. power grid creates risks for cyber espionage and sabotage—which are significant in light of China’s stated strategy and known activities like People’s Republic of China (PRC)-sponsored Volt Typhoon’s efforts to pre-position assets in U.S. critical infrastructure. Additionally, China’s role in international energy systems expands its geostrategic influence, potentially giving it leverage over U.S. allies and partners or third countries that also depend on China for energy imports or even allow Chinese investment in their energy systems.

Key Findings [...]

- China’s restrictions on critical mineral exports to the United States demonstrate its willingness and ability to leverage control of energy technology supply chains for economic coercion. Beijing could use similar tactics to undermine U.S. diplomatic objectives and negotiations with third countries. In 2025, firms across North America, Europe, and Asia faced mounting delays and demands for sensitive data during China’s mineral export license reviews—turning supply chain chokepoints into instruments of coercion and corporate surveillance.
- China’s burgeoning role in global energy systems is occurring through multiple channels: its firms are involved in the construction and operation of energy infrastructure globally, their components are embedded in power systems throughout the world, and its manufacturers are increasingly investing in overseas factories to boost market share abroad. [...]
- China leveraged access to its market and its industrial policy toolset to become a dominant producer of key “new energy” technologies, including EVs, batteries, solar panels, and core wind turbine components. Its policies have already wiped out solar panel makers in the United States and EU, and similar dynamics threaten foreign producers of EVs, wind turbines, and other low-carbon technologies, undermining efforts to de-risk supply chains. China is also a major producer of key equipment used in energy storage, transmission, and distribution. [...]

Chapter 11: Taiwan

We have entered a crucial phase in Beijing's longstanding efforts to impose sovereignty over Taiwan. China is rapidly advancing toward its goal of being prepared to take Taiwan by force—while Taiwan and the United States strive to maintain the capacity to deter a Chinese invasion. China's persistent military activities near Taiwan, combined with new capabilities such as large amphibious assault ships and mobile piers, have enhanced China's capacity to blockade or launch an invasion of Taiwan with little advance warning. Beijing has also continued to escalate its multifaceted pressure campaign targeting Taiwan through military threats, economic coercion, and malign influence activities. Over the past year, Beijing has focused much of its information warfare activities on exacerbating domestic political divisions in Taiwan and driving a wedge between Taiwan and the United States. Moreover, China has continued its efforts to isolate Taiwan in the international arena by pressuring other countries to adopt Beijing's preferred positions and language regarding Taiwan.

In response to China's escalating pressure campaign, Taiwan has made progress enhancing its military deterrence and social resilience through larger and more realistic military exercises, efforts to accelerate the acquisition of new asymmetric defense capabilities, and new measures to counter Chinese malign influence. Taiwan has also continued to leverage its crucial role in technology supply chains—particularly its dominant position in advanced semiconductor manufacturing—to hasten economic diversification away from China. The United States has continued to support Taiwan through weapons sales and security assistance while working with Taiwan to enhance economic ties and build secure supply chains.

Key Findings

- Beijing is attempting to exploit domestic divisions in Taiwan by continuing its two-pronged approach to cross-strait relations. On the one hand, Beijing has issued harsh threats against Taiwan's Democratic Progressive Party (DPP)-led government, which it accuses of promoting Taiwan independence. On the other hand, Beijing has also stepped up efforts to court opposition leaders, business interests, and youth in Taiwan through promises of economic benefits and cross-strait exchange programs.
- In light of China's near-constant military training activities and maneuvers near Taiwan, as well as the People's Liberation Army's (PLA) improved military hardware and operational readiness, U.S. and Taiwan military officials have warned that the PLA could implement a blockade within "a matter of hours" and would potentially need only "minimal conversion time" prior to an attack on Taiwan.
- In addition to intensifying its military pressure on Taiwan, Beijing has also expanded a multifaceted campaign to weaken Taiwan's will to resist through economic coercion and inducements, espionage, information warfare, and undersea cable sabotage.

Chinese propaganda has focused especially on attempting to sow doubt about the U.S. commitment to Taiwan by fomenting uncertainty surrounding U.S. policies on Ukraine, tariffs, and semiconductors.

- Taiwan has made progress improving military readiness, enhancing societal resilience, and diversifying its economy. Nevertheless, bureaucratic inertia in the military as well as political gridlock between the DPP-controlled executive branch and the Kuomintang (KMT)-controlled legislature have cast uncertainty around efforts to speed up the modernization of Taiwan's defenses.
- Despite rising tensions with China, Taiwan's economy continued to perform strongly, driven by insatiable global demand for semiconductors and electronics. Taiwan's continued leadership in technology manufacturing processes coupled with efforts to diversify its trade and investment partners have begun to shift dependence away from China, limiting the sting of Beijing's economic pressure campaign.
- Taiwan is now among the United States' top ten trading partners, with goods exported to the United States overtaking those to China for the first time in over two decades. Taiwan's chip manufacturers have pledged record levels of foreign direct investment (FDI) to build semiconductor manufacturing facilities in the United States. As China pursues a strategy of technological and manufacturing dominance, Taiwan's companies will be important partners to prevent over-reliance on Chinese supply chains.

Chapter 12: Hong Kong

Beijing has dissolved the final vestiges of Hong Kong's political freedom, eliminating the last opposition party and expanding on the draconian Article 23 Ordinance to tighten its oversight of Hong Kong's legal system under an expansive definition of "national security." Civil society and free speech have followed similar fates, as authorities have largely succeeded in intimidating Hong Kong's citizens to discourage them from engaging in open opposition. The government has increased vigilance against so-called "soft resistance" at home while offering bounties on dissidents abroad. Nonetheless, attempts to assuage foreign businesses operating in Hong Kong appear initially successful, even as it is clear Beijing sees Hong Kong primarily as an extension of the Mainland's development objectives.

Although Hong Kong officials maintain a pretense of independence in order to court international investment, the expansion of "national security" into all domains and pressure on private firms to operate in line with Beijing's political objectives make Hong Kong's system increasingly indistinguishable from the Mainland.

Key Findings

- As the Hong Kong government marked the fifth anniversary of the National Security Law, its ongoing crackdown has eliminated a once vibrant civil society and created an atmosphere of repression comparable to mainland China. The Hong Kong government continues to grant the Mainland authority and oversight of the city, passing legislation to award Beijing additional powers to intervene in local law enforcement via the Office for Safeguarding National Security (OSNS).
- Hong Kong security forces have expanded a campaign of transnational repression against leaders of the democracy movement who fled abroad, placing bounties on an additional 15 activists—including two Canadian citizens—canceling passports, and blocking access to their pensions. Authorities have also escalated harassment of activists' family members still in Hong Kong.
- After an exodus of foreign firms following China's imposition of the National Security Law in 2020, a concerted charm offensive to retain international business and rehabilitate Hong Kong's pro-commerce image appears to be bearing fruit. Many foreign firms remain in Hong Kong due to its proximity to mainland China.
- Hong Kong has emerged as an export controls and sanctions evasion hub, facilitating international transactions with and flows of restricted goods and advanced technology to Russia, Iran, and North Korea.
- Beijing's intervention to block CK Hutchison from selling its port investments, including in the Panama Canal, makes clear that Hong Kong firms are now subject to Chinese Communist Party (CCP) directives and that the Party will interfere in commercial transactions to advance its geostrategic objectives. For foreign firms and financial institutions operating in Hong Kong, this interference should be seen as an alarming precedent. [...]

THE COMMISSION'S 2025 KEY RECOMMENDATIONS

The Commission highlights 10 of its 28 recommendations to Congress below. [...] The Commission recommends:

I. Congress consider legislation establishing a consolidated economic statecraft entity to address the evolving national security challenges posed by China's systematic and persistent evasion of U.S. export controls and sanctions. This new unified economic statecraft entity, at a minimum, should include: the Bureau of Industry and Security (U.S. Department of Commerce), the Office of Foreign Assets Control (U.S. Department of the Treasury), the Bureau of International Security and Nonproliferation's Office of Export Control Cooperation (U.S. Department of State), the Defense Technology Security Administration (U.S. Department of Defense), and other appropriate organizations across the executive branch. [...]

III. Congress build U.S. pharmaceutical supply chain resilience by increasing visibility into the supply chain, as well as tracking and reducing U.S. direct and indirect dependence on Chinese active pharmaceutical ingredients (APIs) and related key starting materials (KSMs) [...]

IV. Congress establish as a strategic national objective that the United States build a resilient bioeconomy industrial base and unlock biology as a general-purpose technology before the end of the decade and support this objective through the following actions [...]

The United States currently faces a future in which it depends on China for access to the most cutting-edge biotechnology innovations, sophisticated biomanufacturing equipment, and advanced biomaterials. The coordinated investments in standards development, measurement science, and deployment financing outlined above are essential to ensure the United States leads in the transformation of biology into a general-purpose technology capable of producing up to 60 percent of physical goods in the global economy by mid-century while maintaining national security, supply chain resilience, and economic competitiveness against strategic competitors.

V. To protect the U.S. power grid from the economic and cybersecurity threats posed by Chinese-made components, Congress should:

- Prohibit the import of energy storage systems with remote monitoring capabilities that are manufactured by or made with technology licensed from Chinese entities.
- Allocate additional funds to the U.S. Department of Energy for grid expansion, modernization, and cybersecurity grant and loan programs and prohibit the use of those grants and loans to purchase goods or services or license technology from entities that pose a cybersecurity risk to the U.S. power grid to be designated by the Secretary of Energy, in coordination with the Secretary of Defense, Secretary of Homeland Security, the Director of the National Security Agency, and the heads of other federal departments and agencies, as the Secretary determines appropriate.
- Direct the Department of Energy and Federal Energy Regulatory Commission to strengthen supply chain risk management requirements for interstate electric transmission utilities [...]

VI. Congress strengthen the U.S. Department of Commerce, Bureau of Industry and Security's (BIS) ability to manage strategic competition with China in fast-moving technology sectors, such as leading-edge semiconductors used in artificial intelligence (AI) applications, and increase congressional oversight [...]

VII. Congress establish a “Quantum First” by 2030 national goal with a focus on quantum computational advantage in three mission-critical domains—cryptography, drug discovery, and materials science. [...]

Whoever leads in quantum (and artificial intelligence) will control the encryption of the digital economy; enable breakthroughs in materials, energy, and medicine; and gain asymmetric and likely persistent advantage in intelligence and targeting. It is imperative that the United States treat quantum not as a research silo but as a mission-critical national capability—and act accordingly.

While the United States retains world-leading research capabilities, China has mobilized state-scale investment and industrial coordination to dominate quantum systems and standards. For the purposes of this recommendation, the Commission presumes that China is actively racing to develop cryptographically relevant quantum computing capabilities and is likely concealing the location and status of its most advanced efforts. This is a domain where first-mover advantage could yield irreversible strategic consequences, particularly given the vulnerability of current global systems that rely on public key cryptography. [...]

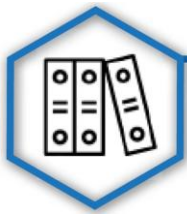
VIII. To preserve and strengthen U.S. primacy in the critical space domain as China pursues sweeping advancements across military, commercial, and civil space sectors, Congress should:

- Increase or reallocate appropriations for the U.S. Space Force to levels necessary to achieve space control and establish space superiority against China’s rapidly expanding space and counterspace capabilities.
- Direct the U.S. Department of Defense to enhance the U.S. Space Force’s capacity to conduct space wargaming and develop realistic modeling and simulation of potential threats from China, including training programs for space operators on warfighting tactics, techniques, and procedures necessary for space control. [...]
- Express support for the strategic importance of U.S. leadership in civil space exploration and direct relevant agencies to assess the progress of the Artemis Accords, evaluate risks China poses to U.S. civil space priorities, including National Aeronautics and Space Administration (NASA) programs, and ensure program delays do not undermine U.S. credibility in establishing global norms for lunar and Martian exploration.

IX. Congress direct the President to create an interagency task force to combat scam centers, which are primarily operated by Chinese criminal networks in Southeast Asia and defraud Americans of billions of dollars annually. [...]

X. Congress direct the U.S. Department of Defense, in coordination with the U.S. Indo-Pacific Command (USINDOPACOM), to produce a report in both classified and unclassified form assessing its compliance with the legal requirement established by Congress in the Taiwan Relations Act “to maintain the capacity of the United States to resist any resort to force or other forms of coercion that would jeopardize the security, or the social or economic system, of the people on Taiwan.” [...]

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FROM THE ARCHIVE

The From the Archive section of this issue offers a 2014 *Information Series* by National Institute Senior Analyst Dr. Mark Schneider. This article provides an early public discussion of Russia's violations of the INF Treaty.

Document No. 1: Mark Schneider, "Confirmation of Russian Violation and Circumvention of the INF Treaty," *Information Series*, No. 360 (Fairfax, VA: National Institute for Public Policy, February 2014).

The former Soviet Union, and its main successor state the Russian Federation, have had a very bad record of compliance with arms control agreements. In a December 1985 unclassified report, President Ronald Reagan summed up the existing compliance situation: "...the Soviet Union has violated its legal commitments to the Strategic Arms Limitation Treaty-1 Anti-Ballistic Missile (SALT I ABM) Treaty, and Interim Agreement, the SALT II Agreement, the Limited Test Ban Treaty of 1963, the Biological and Toxin Weapons Convention, the Geneva Protocol on Chemical Weapons, and the Helsinki Final Act. In addition, the U.S.S.R. has likely violated provisions of the Threshold Test Ban Treaty."¹ Subsequent State Department reports record Russian violations of the INF Treaty and the START Treaty.²

Soviet and later Russian violations of arms control commitments have been numerous and consistent throughout the last forty years. It does not matter whether the commitments are politically or legally binding. Indeed, the Soviets and Russians have repeatedly demonstrated disregard for commitments that prevent them from achieving their objectives with regard to their nuclear capability.³ Under Vladimir Putin, the Russian compliance record appears to have gotten considerably worse. This is largely being ignored by the Obama administration, despite pressure from Congress to do something about it.

The 1987 INF Treaty completely eliminated the entire class of ground-launched ballistic and cruise missiles with a range between 500 and 5,500-km. All existing missiles in this range class were eliminated by 1991 and the Treaty provided that the parties shall "not have such systems thereafter."⁴ Specifically, the parties may not "produce or flight-test any intermediate-range missiles or produce any stages of such missiles or any launchers of such missiles."⁵

There were early minor violations of the INF Treaty by the Soviet Union. Subsequently, there was a much more serious violation of the INF Treaty verification regime by the

¹ *Soviet Noncompliance with Arm Control Agreements, Special Report 136* (Washington, D.C.: U.S. Department of State, December 1985), p. 2.

² For more detail on the overall record of Soviet and Russian arms control violations see Mark B. Schneider, "Russian Violations of Its Arms Control Obligations," *Comparative Strategy*, September 2012, available at <http://www.tandfonline.com/doi/abs/10.1080/01495933.2012.711115?journalCode=ucst20#preview>.

³ Ibid.

⁴ The INF Treaty, Article 1, available at <http://www.acq.osd.mil/tc/treaties/inf/text.htm#preamble>.

⁵ Ibid., Article VI, paragraph 1.



Russian Federation. The Clinton administration's 1995 arms control compliance report stated, "On December 25, 1993, Russia exited what it declared to be a training model of the RS-12M Variant 2 ICBM for silo launcher (U.S. designation—SS-X-27 ICBM) from the Votkinsk Machine Building Plant, but refused to allow U.S. inspectors to use the full-range of existing INF inspection procedures for the missile."⁶ Another State Department report stated, "The United States concluded that these exits failed to comply with several provisions of the INF Treaty."⁷ Until this issue was resolved, missiles exiting Votkinsk were subject to a "policy arrangement" which did not entail full implementation of U.S. Treaty rights.⁸ The ultimate resolution involved changing the Treaty right to "image the content of the canister" to "selective imaging."⁹ This was a *de facto* Treaty amendment without the advice and consent of the Senate.

More recent and much more serious issues related to Russian compliance with the INF Treaty were outlined in a 2012 letter from Congressman Michael Turner (R-OH) to then-Secretary of State of Hillary Clinton, then-Secretary of Defense Leon Panetta and General (ret.) James R. Clapper, Director of National Intelligence. Congressman Turner received a response from Under Secretary of Defense James R. Miller which mainly did not deal with the issues he had raised.¹⁰ Secretary Miller promised additional information in the next State Department compliance report. That did not happen. The next unclassified Obama administration's August 2012 report on *Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments* said nothing about the issues raised by Congressman Turner.

On January 29, 2014, the *New York Times* reported, "The United States informed its NATO allies this month that Russia had tested a new ground-launched cruise missile, raising concerns about Moscow's compliance with a landmark arms control accord."¹¹ The article goes on to say that beginning in May of 2013 the Obama administration raised this matter with senior Russian officials to no avail.¹² *The New York Times* also indicated that unnamed administration officials said "there was no question the missile tests ran counter to the treaty."¹³ On January 30th, the State Department press spokesman confirmed the

⁶ "Adherence To and Compliance With Arms Control Agreements" (Washington, D.C.: U.S. Department of State, 1996), available at <http://www.state.gov/www/global/arms/reports/annual/comp.html>.

⁷ *Adherence to and Compliance with Arms Control Agreements, 1995* (Washington, D.C.: The U.S. Arms Control and Disarmament Agency, May 30, 1995), p. 7.

⁸ "Adherence To and Compliance With Arms Control Agreements." 1996, op. cit.

⁹ Mark B. Schneider, *New START: The Anatomy of a Failed Negotiation* (Fairfax, VA: The National Institute Press, 2012), p. 61, available at <http://www.nipp.org/Publication/Downloads/Downloads%202012/New%20START%20Final%20for%20web.pdf>.

¹⁰ DUSD James Miller, Letter to the Honorable Michael R. Turner Chairman Subcommittee on Strategic Forces Committee on Armed Services U.S. House of Representatives, August 3, 2012, p.2.

¹¹ Michael Gordon, "U.S. Says Russia Tested Missile, Despite Treaty," *The New York Times*, January 29, 2014, available at <http://www.nytimes.com/2014/01/30/world/europe/us-says-russia-tested-missile-despite-treaty.html>.

¹² Ibid.

¹³ Ibid.

story stating: “we have raised this issue with the Russians. That is true. I can certainly confirm that...I don’t have anything to...refute the facts in the report.”¹⁴

On January 30, 2014 Congressman and Subcommittee Chairman on the House Armed Services Committee Michael Turner characterized the Russian actions as a “material breach” of the INF Treaty.¹⁵ On February 6, 2014, House Armed Services Committee Chairman Howard P. “Buck” McKeon (R-CA), Chairman of the House Foreign Relations Committee Ed Royce (R-CA), and Chairman of the House Select Committee on Intelligence Mike Rogers (R-MI) sent a letter to the President asking him to take action against Russia’s “material breach” of the INF Treaty, stating that there was “compelling evidence pointing to Russia’s material breach and circumvention of the Intermediate-Range Nuclear Forces (INF) Treaty.”¹⁶ The House Armed Services Committee also confirmed that earlier Congressional letters on Russian violation and circumvention of arms control treaties related to the INF compliance issue.¹⁷

There are actually five issues involving Russian violation or circumvention of the INF Treaty. (A violation is an action that is specifically prohibited by some provision of the INF Treaty. The term “circumvention” is used here to mean that Russia has tested or deployed a ground-launched ballistic or cruise missile designed to achieve capability prohibited by the INF Treaty by exploiting loopholes in the INF and New START Treaties.) These issues include: 1) the cruise missile that had recently been given much well deserved press attention; 2) the range of the Iskander M ballistic missile; 3) the covert retention of the Skorost IRBM; 4) the RS-26/Rubezh ballistic missile that appears to be a replacement for the Soviet SS-20 IRBM that was eliminated by the INF Treaty; and 5) the reported nuclear surface attack capability of Russian ABM interceptor missiles and surface-to-air missiles (SAMs).

Russia has repeatedly threatened to withdraw from the INF Treaty. This issue was first raised in 2007 by then-Defense Minister Sergei Ivanov (now Kremlin Chief of Staff) who called the Treaty a “mistake” and a “Cold War relic.”¹⁸ Then-Chief of the General Staff General Yuriy Baluyevskiy threatened to pull out of the treaty unless Washington decreased its missile defense plans. He said, “It is possible for a party to abandon the treaty

¹⁴ Jen Psaki Spokesperson, Daily Press Briefing (Washington, D.C.: U.S. Department of State, January 30, 2014), available at <http://www.state.gov/r/pa/prs/dpb/2014/01/221045.htm>.

¹⁵ Congressman Michael Turner, Letter to President Barack Obama, January 30, 2014, available at http://armedservices.house.gov/index.cfm/files/serve?File_id=38D4A0C7-351C-43C7-87A5-1F2FD8F5E5A1.

¹⁶ McKeon, Royce, Rogers Letter to President - February 2014, available at http://armedservices.house.gov/index.cfm/files/serve?File_id=0D908BDC-EC41-4C14-A0C6-59BDB2DF4343.

¹⁷ “The Nuclear Treaty Russia Won’t Stop Violating,” House Armed Services Committee, February 12, 2013, available at http://armedservices.house.gov/index.cfm/defense-drumbeat-blog?ContentRecord_id=F83A1F20-7069-418B-A4DC-0ED9F751F689.

¹⁸ Stephen J. Blank, *Towards A New Russia Policy* (Carlisle, PA: U.S. Army Strategic Studies Institute, February 2008), p. 44, available at <http://www.scribd.com/doc/4871316/TOWARDS-A-NEW-RUSSIA-POLICY>; Jane M.O. Sharp, “Russia and America: Is Another Arms Race Afoot?,” MIT, November 7, 2007, available at http://web.mit.edu/cis/editorspick_sharp07_audit.html; and, “Soviet-U.S. INF Treaty A Relic Of Cold War - Ivanov (Part 2),” *Interfax*, May 23, 2007, available at <http://wnc.dialog.com/>.

[unilaterally] if it provides convincing evidence that it is necessary to do so,” and added that, “We have such evidence at present.”¹⁹ President Putin has also threatened to withdraw from the INF Treaty.²⁰

In February 2007, then-Commander of the Strategic Missile Forces, Colonel General Nikolai Solovtsov said, “If the political decision is made to withdraw from this treaty (the Russian-American Intermediate Range Nuclear Forces Treaty, or INF) the Russian Strategic Missile Forces will be ready to fulfill this task.”²¹ That same year, Russian Major General Midykhat Vildanov, a professor at the Academy of Military Sciences, called for “pragmatic approaches” to the observance of the INF Treaty in support of Russia’s national security.²² Major General Vladimir Vasilenko, head of the 4th Central Research and Development Institute of the Russian Defense Ministry stated: “Deploying ground-based medium-range missiles may be one of the options for insuring national security.”²³ In June 2013, Kremlin Chief of Staff Sergei Ivanov stated that Russian observance of the INF Treaty “can’t last endlessly.”²⁴

Instead of withdrawing from the INF Treaty, which would have exposed Russia to significant international criticism and open the door to U.S. development and deployment of INF-range missiles, Russia appears to be creating the same type of capability that existed before the INF Treaty by a combination of circumventions and Treaty violation where this is necessary.

THE CRUISE MISSILE ISSUE

There is considerable unclassified information to support *The New York Times* story and the assessment of the Congressional leaders that Russia is in violation of the INF Treaty. The cruise missile in question is almost certainly the R-500.²⁵ The evidence includes numerous Russian press reports concerning the range of the R-500, photographs of the R-500 launcher and its launch canister, and photographs of the first R-500 launch which were released by the Russian Defense Ministry.²⁶ These appear to show a missile that is too

¹⁹ “Russia may unilaterally quit INF Treaty - General Staff,” *Ria Novosti*, February 2, 2007, available at <http://en.rian.ru/russia/20070215/60795303.html>

²⁰ “Putin threatens withdrawal from cold war nuclear treaty,” *The Guardian*, October 12, 2007, available at <http://www.guardian.co.uk/world/2007/oct/12/russia.usa1>.

²¹ “Medium-range Missiles Could Re-appear In Strategic Missile Forces’ Arsenal,” *Agentstvo Voyennykh Novostey (Internet Version-WWW)*, February 19, 2007, available at <http://www.wnc.dialog.com/>.

²² Schneider, “Russian Violations of Its Arms Control Obligations,” op. cit., p. 341.

²³ “Expert: Russia Could Counter Security Threats By Employing Medium-Range Missiles,” *Agentstvo Voyennykh Novostey*, February 14, 2006, available at [www.http://www.wnc.dialog.com/](http://www.wnc.dialog.com/).

²⁴ “Russia honoring INF treaty, but this can’t last endlessly - Kremlin chief of staff,” *Interfax*, June 24, 2013, available at <http://www.wnc.dialog.com>.

²⁵ Frank Gaffney, “While Obama Resets, Putin Rearms,” *Canada Free Press*, February 3, 2014, available at <http://canadafreepress.com/index.php/article/60902>.

²⁶ “Искандер-К,” August 2, 2008, available at <http://militaryrussia.ru/blog/topic-304.html>.

large to be a short-range cruise missile. Moreover, what is the purpose of a subsonic cruise missile on a system that already has a high speed ballistic (or probably, more accurately, semi-ballistic) missile? The only significant advantage, *consistent with the INF Treaty*, would be more missiles on the launcher. However, the Iskander-M semi-ballistic missile would clearly have a much shorter time to target and much better defense penetration capability. The Iskander has been described as having a peak velocity that is hypersonic and impacting at supersonic speeds.²⁷ According to a report in *Vozdushno-Kosmicheskaya Oborona Online*, "Missile speed after the boost phase is 2,100 m/sec" and, "The missile maneuvers intensively with g-forces on the order of 20-30 in the boost and terminal phases of flight."²⁸ The Russians have said the speed for the R-500 is about 250m/second.²⁹ The biggest potential advantage, *inconsistent with the INF Treaty*, of adding a subsonic cruise missile like the R-500 to the Iskander system is potentially a far longer range than is possible for the Iskander M.

The first test of the R-500 in 2007 was announced by then-First Deputy Prime Minister Colonel General Sergei Ivanov.³⁰ Mr. Ivanov said, "It can be used at *long range* with surgical precision, as doctors say."³¹ (Emphasis added). This is a very odd thing to say about a missile that is supposed to be short-range, but it matches the higher range numbers for the missile that have been reported in the Russian press. Many Russian press reports say that the missile has a range of two to six times the 500-km range that is allowed under the INF Treaty for short-range missiles.

After Mr. Ivanov's announcement, Russian officials generally went silent about the new missile, which is unusual. Indeed, while President Putin gave the developers of the R-500 missile the Russia State Award, their names were not mentioned "because their identity is a state secret."³² Again, this is very unusual. It seems clear that the Russian Government does not want the press talking to the missile's designers. This is what one would expect if there is an issue of compliance with the INF Treaty. After the first flight test, specific R-500 flight tests were not announced. By Russian standards, there was very little bragging about the R-500, which again is unusual.

²⁷ "Iskander Tactical Ballistic Missile System, Russian Federation," *Army Technology.com*, no date, available at <http://www.army-technology.com/projects/iksander-system/>; "Shourya and Agni-I: What's the Difference?," *vijainder.sawfnews.com*, April 18, 2012, available at <http://vijainder.sawfnews.com/Articles/68580.aspx>; and, "Iskander-K launching a cruise missile," *Defense Talk*, December 3, 2011, available at <http://www.defencetalk.com/pictures/iskander/p46588-iskander-k-launching-a-cruise-missile.html>.

²⁸ "Limited and Realistic in Resources: That Is How the Russian Response to Deployment of the US Missile Defense System in Europe Looks," *Vozdushno-Kosmicheskaya Oborona Online*, February 13, 2012, available at <http://www.wnc.dialog.com/>.

²⁹ Nikolai Sokov, "Russia Tests a New Ground-Launched Cruise Missile and a New Strategic Missile on the Same Day," *CNS*, June 1, 2007, available at <http://cns.miis.edu/stories/070601.htm>.

³⁰ Alexander Timoshik, "New Russian missile R-500 to destroy any US defense system," *Pravda.ru*, May 30, 2007, available at http://english.pravda.ru/russia/kremlin/30-05-2007/92443-missile_r_500-0/.

³¹ "Putin: U.S. Pursuing 'Imperialist' Policy," *The Associated Press*, February 11, 2009, available at http://www.cbsnews.com/8301-202_162-2872235.html.

³² Steve Gutterman, "Putin celebrates Russia Day with State Prize ceremony at Kremlin," *The Associated Press*, June 13, 2007, available at <http://www.semissourian.com/story/1216976.html>.

The Russian press soon began to report that the R-500 was a violation of the INF Treaty or published range numbers for the missile that would violate the Treaty. To violate the INF Treaty a ground-launched cruise missile (and there is no dispute that the R-500 is a ground-launched cruise missile) does not even have to fly beyond 500-km (the INF Treaty prohibition is on ground-launched cruise and ballistic missiles with a range between 500-5,500 kilometers), but merely have the range potential to do so. (Actual testing provides conclusive evidence of its potential range and *The New York Times* account suggests that it has been tested to prohibited range since 2008.) Under the INF Treaty, cruise missile range is the “maximum distance which can be covered by the missile in its standard design mode flying until fuel exhaustion, determined by projecting its flight path onto the earth’s sphere from the point of launch to the point of impact.”³³ This is a deliberately restrictive definition. Since cruise missiles do not normally fly to fuel exhaustion, this effectively limits the maximum operational range of a ground-launched cruise missile, if the Treaty is complied with, to under 500-km.

In November 2007, *Ria Novosti*, an official Russian Government news agency, reported: “The flight range of a new cruise missile adapted for Iskander and successfully tested in May 2007 could exceed 500 km (310 miles).”³⁴ In November 2008, it revealed that the potential range of the R-500 “can exceed 2,000 kilometers...”³⁵ Russian arms control expert Viktor Myasnikov wrote that the R-500 exceeded the 500-km limit of the INF Treaty on its first test and its range could be expanded to 1,000 kilometers.³⁶ Russian journalist Oleg Vladykin stated the “R-500 cruise missile...range will presumably increase to 1000 km or more.”³⁷ *Kommersant*, a major Russian publication, maintains that the range of the R-500 “can amount to 1,000 kilometers.”³⁸ Sergi Balmasov, writing in *Pravda.ru*, indicated the R-500 has a range of 2,000-km.³⁹ Russian journalists Ivan Konovalov and Vladislav Litovchenko, writing in *Kommersant*, said the Iskander system can be armed with a cruise missile with “even greater” range than 500-km.⁴⁰ Yury Fedorov, Associate Fellow, Russia and Eurasia Programme, Chatham House, noted “there are reports that it could have a

³³ “Intermediate-Range and Shorter-Range Nuclear Forces (INF) Treaty: Table of Contents,” Article VII, paragraph 4, available at <http://www.acq.osd.mil/tc/treaties/inf/index.htm>.

³⁴ “Russia to compensate for INF losses with Iskander missile system,” *Ria Novosti*, November 14, 2007, available at <http://www.en.rian.ru/russia/20071114/88066432.html>.

³⁵ Ilya Kramnik, “The Iskander: a story of a new face-off,” *Ria Novosti*, November 19, 2008, available at <http://www.en.rian.ru/analysis/20081110/118218596.html>.

³⁶ Schneider, “*The New START Treaty, Anatomy of a Failed Negotiation*” op. cit., p. 69.

³⁷ Oleg Vladykin, “Missile With a Political Target; Topol, Bulava, and Iskander Attack Balky Partners,” *Moskovskiye Novosti* July 7, 2007, available at <http://www.wnc.dialog.com/>.

³⁸ Mikhail Barabanov, “The Iskander Factor,” *Kommersant*, November 9, 2008, available at http://www.kommersant.com/p1052937/r_527/Iskander_missiles_to_counterbalance_American_AMD_systems/.

³⁹ Sergi Balmasov, “Russia Shows Iskander Missile Systems to NATO,” *Pravda.ru*, December 17, 2010, available at <http://english.pravda.ru/russia/politics/17-12-2010/116249-iskander-0>.

⁴⁰ Ivan Konovalov and Vladislav Litovchenko, “Generals Always Will Have Luga in Their Pocket: NATO of Course Does Not Threaten Russia, but It Is Best To Keep Iskanders Closer to It,” *Kommersant Online*, March 1, 2010, available at <http://www.wnc.dialog.com>.

range of up to 2000km, as it is an upgrade of the Soviet land based cruise missile RK-55, also known as CSS-X-4 Slingshot...destroyed in accordance with the INF treaty.”⁴¹ (The RK-55 was reported to have had a 200-kt nuclear warhead.)⁴² Mikhail Barabanov, chief editor of the *Moscow Defense Brief*, wrote that the R-500 range could be more than 1,000-km.⁴³ Writing in *Ria Novosti* and for the *UPI*, Ilya Kramnik said that the range of the R-500, and possibly a second missile, could be between 1,200 and 3,000-km.⁴⁴ Kramnik concluded the R-500 was a violation of the INF Treaty.⁴⁵ In January 2009, he stated that “Iskander can be equipped with cruise missiles with a range of up to 2,000 km (1,243 miles), and even 3,000 km (1,865 miles) that will allow it to destroy targets anywhere in Western Europe.”⁴⁶ In December 2013, *Interfax*, the main private Russian news agency, noted, “The R-500 missile now is being developed for it [the Iskander K], and according to unconfirmed information [it] has a flight range exceeding 2,000 km.”⁴⁷

In 2009, the U.K. House of Commons Defense Committee noted reports that the R-500 has a 2,000-km range.⁴⁸ *Pravda.ru* has said that NATO experts were concerned that the Iskander K had a range of 2,000-km.⁴⁹ *STRATFOR*, a private commercial intelligence service, obtained information from Russians to the effect that:

The R-500 is a more conventional version of the old Soviet 3M10 long-range cruise missile with a range of 2,600 km, which was deployed on Russian nuclear attack submarines. These older missiles were eliminated also under INF [-for now]. Testing of the R-500 will be completed by the end of 2009; it has been successful thus far. After that it would be a political decision whether to put it into service. Six missiles with the R-500s are already ready to be deployed.⁵⁰

⁴¹ Yuri Fedorov, “American Ballistic Missile Defence, Russian Iskanders and a New Missile Crisis in Europe,” London: Chatham House, May 22, 2009, available at <http://www.chathamhouse.org/sites/default/files/public/Research/Russia%20and%20Eurasia/220509summary.pdf>.

⁴² “RK-55 (SS-N-21/SSC-X-4),” *Missile Threat.com*, April 5, 2013, available at <http://missilethreat.com/missiles/rk-55-ss-n-21ssc-x-4/> <http://missilethreat.com/missiles/rk-55-ss-n-21ssc-x-4/>.

⁴³ Mikhail Barabanov, “Bottom Line,” Moscow, *Kommersant Daily*, November 7, 2008, available at <http://www.wnc.dialog.com>.

⁴⁴ Ilya Kramnik, “Sticking An Iskander Missile Into The ABM Shield Part One,” *UPI*, November 19, 2008, available at http://www.spacewar.com/reports/Sticking_An_Iskander_Missile_Into_The_ABM_Shield_Part_One_999.html; and, Ilya Kramnik “Missile bargaining: Iskanders for missile defense,” *Ria Novosti*, January 29, 2009, available at <http://www.en.rian.ru/analysis/20090129/119877816.html>.

⁴⁵ Nat Helms, “Russia Threatens Missile Staging Over U.S. Plans,” *Newsmax*, November 11, 2008, available at <http://www.newsmax.com/International/russia-missiles-threat/2008/11/11/id/326547>.

⁴⁶ Kramnik, “Missile bargaining: Iskanders for missile defense,” op. cit.

⁴⁷ “Russian MoD Reaction to German Article on Photos Showing Iskander Missiles in Kaliningrad Oblast,” *Interfax.ru*, December 16, 2013, available at <http://www.dialog.com/proquestdialog/>.

⁴⁸ “Russia: a new confrontation?,” London, House of Commons Defense Committee, June 2009, available at <http://www.publications.parliament.uk/pa/cm200809/cmselect/cmdfence/276/276.pdf>.

⁴⁹ Balmasov, “Russia shows Iskander Missile Systems to NATO,” op. cit.

⁵⁰ Lauren Goodrich, “Subject INSIGHT - RUSSIA - Iskander Missile,” *Rusrep.ru*, December 13, 2009, available at <http://www.rusrep.ru/article/2012/02/27/1739377>.

In June 2007, then-First Deputy Prime Minister Sergei Ivanov predicted that the new cruise missile would be in production in 2009.⁵¹ In November 2007, Colonel General Vladimir Zaritsky, then-commander of the Russian Missile and Artillery Forces, indicated testing was going on and the missile was going to be operational in 2009.⁵² He said, "Cruise missiles are being tested, I am satisfied with the progress and I am certain that the task of providing enough launchers armed with cruise missiles will be coped with on time....The military-industrial commission under the Russian government has set 2009 as the deadline."⁵³ In November 2009, Russian Rocket Forces and Artillery Commander Lt. General Sergei Bogatinov said that development of an advanced cruise missile for the Iskander system was continuing.⁵⁴ In August 2012, *Interfax-AVN*, reported, "Cruise missiles are being serially produced for Iskander tactical missile systems."⁵⁵ Production of ground-launched cruise missiles of INF range is also a violation of the INF Treaty. A recent Russian press report suggests it has been deployed or very close to it. *ARMS-TASS* quotes the General Director of the MITT design bureau as saying that the "complex 'Iskander-M' is transmitted to the troops complete with cruise missiles and aeroballistic [missiles]."⁵⁶

With regard to the possible second prohibited cruise missile reported by *Ria Novosti's* military correspondent Ilya Kramnik, there is much less press coverage. A Finnish study of the Iskander system suggests that Russian Club supersonic cruise missiles are also connected with it.⁵⁷ The Russians press reports that one version of the Club missile family, the Kalibr, is nuclear capable and has a 2,500-2,600-km range.⁵⁸

⁵¹ "Putin To Congratulate Iskander Cruise Missile Designers," *Agentstvo Voyennykh Novostey (Internet Version-WWW)*, June 4, 2007, available at <http://www.wnc.dialog.com/>.

⁵² "Russian Army To Have Cruise Missiles-armed Iskander In 2009," *ITAR-TASS*, November 14, 2007, available at <http://www.wnc.dialog.com/>.

⁵³ *Ibid.*

⁵⁴ "Russia to Form First Missile Brigade Armed With Iskander Missiles in 2010," *Interfax* November 23, 2009, available at <http://www.wnc.dialog.com/>.

⁵⁵ "New strategic cruise missiles developed in Russia - Defense Ministry (Part 2)," *Interfax-AVN Online*, August 8, 2012, available at <http://www.wnc.dialog.com/>.

⁵⁶ "Russia: Engineering Design Bureau Creates A New Missile For Tactical Complex 'Iskander-M'," *ARMS-TASS*, February 10, 2014.

⁵⁷ Stephen Forss, "The Russian Operational Tactical Iskander Missile System," Helsinki Finland: Maanpuolustuswörkeakoulu, 2012, p. 16, available at http://www.doria.fi/bitstream/handle/10024/84362/StratL4_42w.pdf?sequence=1.

⁵⁸ "Lead 4th generation multirole nuclear sub of Project 885 to undergo state sea trial in November," *ITAR-TASS*, September 5, 2012, available at <http://www.itar-tass.com/en/c154/511570.html>; Aleksandr Mozgovoy, "The Nuclear Missile-Armed Mistral Dock Landing Ship and the Space-Based Aircraft Carrier," *Moscow Nezavisimoye Voyennoye Obozreniye Online*, March 28, 2012, available at <http://www.dialog.com/proquestdialog/>; and, Viktor Savenkov, "Russia Is Preparing for War Against Iran or for Iran -- Otherwise Why Is the Latest Missile Ship with Russian 'Tomahawks' Being Transferred to the Caspian?," *Moscow Svobodnaya Pressa*, June 18, 2012, available at <http://www.dialog.com/proquestdialog/>.

RANGE OF THE ISKANDER M

The Iskander M (SS-26) is the poster-child of the Russian tactical nuclear modernization program. Russian leaders never stop talking about it. Indeed, in 2006, President Vladimir Putin awarded Russia's State Prize to the developers of the Iskander-M tactical missile system.⁵⁹

The Iskander-M missile is nuclear capable and it was launched in Russia's 2013 large nuclear exercise.⁶⁰ According to the Russian Defense Ministry, "Combat units of rocket troops and ordnance of the Central and Southern Military Districts fired four Iskander and Tochka-U [SS-21] tactical missiles at training targets at Kapustin Yar firing range in Astrakhan region on October 30, 2013 in the framework of a surprise check and exercise of nuclear deterrence forces..."⁶¹ Nuclear-armed Iskander and SS-21 missiles would violate Russian commitments under the 1991-1992 Presidential Nuclear Initiatives.⁶²

Russia has announced that it plans to deploy up to 120 Iskander M launchers each carrying two missiles.⁶³ It has threatened the forward deployment of this missile to Kaliningrad in response to U.S. missile defense deployment.⁶⁴ In December 2013, the German newspaper *Bild* reported that Russia had deployed the Iskander-M to Kaliningrad.⁶⁵ The newspaper claimed it obtained "secret satellite" images showing 10 missiles. The Russians first confirmed the story and then Putin denied it.⁶⁶

Russia is now deploying the Iskander M, which reportedly has a range potential of more than the 500-km allowed by the INF Treaty. Russian military journalist Alexander Golts

⁵⁹ "State Prize Awarded To Developers Of Iskander-M Missiles – Putin," *ITAR-TASS*, June 12, 2007, available at <http://www.wnc.dialog.com/>.

⁶⁰ "Army Brigade To Be Equipped With Iskander Systems This Year – Commander," *ITAR-TASS*, September 29, 2009, available at <http://www.dialog.com/proquestdialog/>; "Ground Forces Personnel Will Be Armed With Iskanders," Moscow *Nezavisimoye Voyennoye Obozreniye*, October 29, 2009, available at <http://www.dialog.com/proquestdialog/>; "Russia: General Staff Chief Gerasimov Directs Key Personnel Video Conference on Strategic Exercise," *Ministry of Defense of the Russian Federation*, November 1, 2013, available at <http://www.dialog.com/proquestdialog/>; and, "Iskander, Tochka-U tactical missiles launched in Russia's snap drill," *Interfax-AVN*, October 30, 2013, available <http://www.dialog.com/proquestdialog/>.

⁶¹ "Four Iskander and Tochka-U missiles fired during surprise check of troops," *Interfax-AVN*, October 29, 2013, available at <http://www.dialog.com/proquestdialog/>.

⁶² Schneider, "Russian Violations of Its Arms Control Obligations," op. cit., p 336-338.

⁶³ Iliya Pitalev, "Russian army to receive 120 Iskander tactical missile systems," *Ria Novosti*, August 2, 2011, available at http://en.ria.ru/military_news/20110802/165508090.html.

⁶⁴ "Medvedev Russia will deploy Iskander in Kaliningrad to neutralize U.S. missile threats," available at <http://mishasrussiablog.blogspot.com/2008/11/medev-russia-will-deploy-iskanders-in.html>; "Interview with Reserve Lieutenant-General Buzhinskiy by Vladimir Solov'yev," *Kommersant Online*, April 6, 2011, available at <http://www.wnc.dialog.com/>; "Defense ministry ready to deploy Iskanders in Kaliningrad if there is political will – general," *Interfax*, February 24, 2009, available at <http://www.wnc.dialog.com/>; and, "Russian defence minister explains missile deployment statement," *Interfax*, February 19, 2010, available at <http://www.wnc.dialog.com/>.

⁶⁵ "Moscow confirms deployment of Iskander missiles on NATO borders," *RT*, December 16, 2013 available at <http://rt.com/news/iskander-missile-deployment-russia-317/>.

⁶⁶ *Ibid.*, "Putin denies deployment of Iskander missiles in Kaliningrad," *CTTV.com*, December 19, 2013, available at <http://www.english.cntv.cn/20131219/105615.shtml>.

has pointed out that from time to time, Russian leaders and military officials hint that the Iskander missile can fly further than 500-km.⁶⁷ *Izvestiya* reported that the Iskander range is 500-600-km.⁶⁸ A Finnish study concluded the range was 700-km.⁶⁹ According to Viktor Myasnikov, "Experts believe that the range of the Iskander guided missile can be increased to 1,000 kilometers without changing the launch system."⁷⁰ Colonel General Zaritskiy also talked about increasing the range of the Iskander.⁷¹

Myasnikov has said the missile has flown to 500-km.⁷² This is technically a violation of the INF Treaty, but he probably did not intend to say this. The INF Treaty ballistic missile range definition is demonstrated range, different from the potential range definition which applies to cruise missiles. If the Iskander M has not flown to 500-km or above, it would be still be a circumvention of the Treaty because of its range potential. Even without testing over 500-km it could be possible to hit targets beyond the 500-km range. Loopholes in the New START Treaty open the possibility of legally testing Iskander missiles to prove it has a prohibited range. The New START Treaty does not ban air- or surface ship-launched ballistic missiles with a range of over 600-km as the START Treaty did.⁷³

Valeriy Kashin, head of the MITT missile design bureau which makes the Iskander-M, has revealed that there are "two new missiles for the Iskander-M operational tactical missile system."⁷⁴ He did not provide any information about these missiles. He also said that Iskander missiles "were not delivered assembled..."⁷⁵ It is unclear how it is possible to deliver a single stage missile unassembled. Could this mean that there is an undisclosed two stage version of this system?

Stefan Forss, a former missile specialist with the government of Finland's Foreign Ministry and currently an adjunct professor at Finland's National Defense University, says Russia appears to be breaking the INF Treaty, stating, "If there are no further tests [of the RS-26] to intercontinental ranges—we should, however, prepare for some *maskirovka* [deception] tests in this regard—the matter is settled....Yars M [RS-26/Rubezh] will take care of the upper end of the INF range spectrum and Iskander-M of the lower end."⁷⁶

⁶⁷ Schneider, *The New START Treaty, Anatomy of a Failed Negotiation*, op. cit., p. 69.

⁶⁸ Gennadiy Melnik and Denis Telmanov, "Iskanders Taught To Work in Formation. Russia's Main Military Argument Tested for First Time in Conditions Close to Actual," *Moscow Izvestiya Online*, September 26, 2011, available at <http://www.wnc.dialog.com/>.

⁶⁹ Forss, "The Russian Operational Tactical Iskander Missile System," op. cit., p. 15.

⁷⁰ Viktor Myasnikov, "Full Aft. Verbal Arms Race Is Under Way and Has Prospects of Becoming Real One," *Moscow Nezavisimaya Gazeta*, November 21, 2007, available at <http://www.wnc.dialog.com/>.

⁷¹ Ibid.

⁷² Ibid.

⁷³ Schneider, *New START: The Anatomy of a Failed Negotiation*, op. cit., pp. 5-7.

⁷⁴ "General Director of OAO 'NPK KBM' Valeriy Kashin: 'Deliveries of Iskander-M to our Army have Substantially Increased'," *Interfax-AVN Online*, April 4, 2013, available at <http://www.wnc.dialog.com/>.

⁷⁵ Ibid.

⁷⁶ Bill Gertz, "Russian Defense Radar, Missiles Worry U.S. Officials," *The Washington Free Beacon*, July 3, 2013, available at <http://freebeacon.com/russian-defense-radar-missiles-worry-u-s-officials/>.

RETENTION OF THE SKOROST IRBM

Writing in September 2011, Vladimir Kudelev noted that Russia's Federal Space Agency published a request for proposals for "the elimination of the solid-propellant rocket engines and warheads of intercontinental ballistic missiles (ICBMs) of the Kuryer, Skorost, and Topol-M missile complexes and the Bark submarine-launched ballistic missiles (SLBMs)."⁷⁷ The problem, as Kudelev noted, was that the Skorost was "erroneously described as an ICBM" because it "had a maximum range of 4,000 km." Since the missile had been flight tested in the 1980s, it should have been declared and eliminated under the INF Treaty.⁷⁸ Their failure to declare and eliminate Skorost missiles violated the INF Treaty. The Russian Federation did nothing to correct the Soviet violation. The issue with regard to the RS-26 Rubezh is whether or not the Russians have done exactly the same thing.

RS-26 RUBEZH "ICBM/IRBM" ISSUE

The evidence we now have suggests that the RS-26/Rubezh ("Frontier" in Russian) is either a circumvention of the INF Treaty, a violation of the INF Treaty or a violation of the New START Treaty. (A New START violation may seem strange, but the RS-26 is almost certainly a derivative of an ICBM or SLBM which potentially brings New START into the picture.) The only thing the Obama administration has said about the missile is, "The recent test of a new type of Russian ICBM, as announced in the Russian press, was notified and conducted consistent with the requirements of the New START Treaty; it was not subject to any provisions or restrictions under the INF Treaty."⁷⁹ However, the Obama administration did not explain the basis of this conclusion.

Former Undersecretary of State John Bolton and former Assistant Secretary of State Paula DeSutter have characterized the missile that the Russians now call the RS-26/Rubezh as an "apparent violation" of the INF Treaty, saying that all three of the successful launches went to INF range.⁸⁰ If the first test of the RS-26/Rubezh did not go to ICBM range as the Russians claim or if it did and the second and third tests of the RS-26 which the Russians say went to INF range were not the same type of missile as in the first successful test, the missile would be a violation of the INF Treaty.

⁷⁷ Vladimir Kudelev, "The Super-Accurate Skorost and the Undetectable Kuryer. The Forgotten Unique Developments of Aleksandr Nadiradze," *Voyenno-Promyshlennyi Kuryer Online*, October 12, 2011, available at <http://www.dialog.com/proquestdialog/>.

⁷⁸ "Russia: Recommendations Made for Upgrading Strategic Nuclear Forces for Strategic Deterrence Mission," *Nezavisimoye Voyennoye Obozreniye*, September 16, 2013, available at <http://www.dialog.com/proquestdialog/>.

⁷⁹ DUSD James Miller, Letter to the Honorable Michael R. Turner Chairman Subcommittee on Strategic Forces Committee on Armed Services U.S. House of Representatives, op. cit., p.1.

⁸⁰ John R. Bolton and Paula DeSutter, "Russian Roulette," *Foreign Policy*, June 21, 2013, available at http://www.foreignpolicy.com/articles/2013/06/21/russian_roulette_obama_nukes_john_bolton.

Bill Gertz, writing in *The Washington Times* and in the *The Washington Free Beacon*, stated that an intelligence community official told him, "The intelligence community believes it's [the RS-26/Rubezh] an intermediate-range missile that [the Russians] have classified as an ICBM because it would violate the INF treaty' if its true characteristics were known..."⁸¹ He also reported, "The Air Force National Space and Missile Intelligence Center reported recently within classified channels that Russia conducted a test launch of a new intermediate-range missile disguised as an intercontinental ballistic missile."⁸²

In April 2013, Congressmen Howard P. "Buck" McKeon, Chairman of the House Committee on Armed Services and Mike Rogers, Chairman of the House Permanent Select Committee on Intelligence wrote the President noting that they twice expressed "concerns about a massive Russian violation and circumvention of an arms control obligation to the United States of great significance to this nation and to its allies."⁸³ They also noted that Senators on the Senate Intelligence Committee had written "to senior Administration officials about this and other clear examples of Russia's non-compliance with its arms control obligations."⁸⁴ In February 2014, Congressman McKeon, Congressman Mike Rogers and Congressman Ed Royce, Chairman of the House Committee on Foreign Affairs again wrote the President pressing him to take action on the INF violations and circumventions.⁸⁵

In a commentary on President Obama's June 2013 Berlin speech advocating deeper nuclear weapons reductions, Congressman McKeon stated, "The President's desire to negotiate a new round of arms control with the Russians, while Russia is cheating on a major existing nuclear arms control treaty, strains credulity. I have been urging the President through classified and unclassified correspondence to take seriously these violations by Russia since last year, but the President has ignored these concerns."⁸⁶

In June 2013, 24 Senators wrote Secretary of State John Kerry stating:

The first issue we will be watching closely as the Senate considers these nominations relates to Russia's compliance with its arms control commitments to the United States. Specifically, we will seek assurances from the administration that Russia is in compliance with its nuclear arms control agreements and obligations, including the Intermediate-range Nuclear Forces treaty, the Presidential Nuclear Initiatives (PNIs) agreed to by President George H.W. Bush and President Boris Yeltsin, and its Comprehensive Nuclear-Test Ban Treaty

⁸¹ Bill Gertz, "Russian aggression: Putin violating nuclear missile treaty," *The Washington Times*, June 25, 2013, available at <http://www.washingtontimes.com/news/2013/jun/25/russia-violating-1987-nuclear-missile-treaty/?page=all#pagebreak>.

⁸² Bill Gertz, "McKeon: State Department Ignores Major Russian Treaty Violation," *The Washington Free Beacon*, July 15, 2013, available at <http://freebeacon.com/mckeon-state-department-ignores-major-russian-treaty-violation/>.

⁸³ Howard P. "Buck" McKeon and Mike Rogers, Letter to the President, April 12, 2013, available at <http://freebeacon.com/wp-content/uploads/2013/06/Russia-Letter-2.pdf>.

⁸⁴ Ibid.

⁸⁵ McKeon, Royce, Rogers Letter to President - February 2014, op. cit.

⁸⁶ "Chairman McKeon on the President's Berlin Remarks," June 19, 2013, available at http://armedservices.house.gov/index.cfm/press-releases?ContentRecord_id=36e9b3e7-b881-4d9e-af00-7f515cc5dba0.

obligations as the United States defines those obligations. We note the recent amendment adopted by the House Armed Services Committee which states that Russia is 'in active noncompliance with existing nuclear arms obligations.'

Earlier this year, all Republican members of the SSCI [Senate Select Committee on Intelligence] sent you a classified letter on these very issues. The fact that the response did not address many of the issues raised in the letter, combined with the fact that the annual compliance report is already several months past-due calls into question just how seriously the administration takes the issue of verification and enforcement of existing agreements. We agree with President Obama's statement that "[r]ules must be binding. Violations must be punished. Words must mean something" and look forward to receiving additional information from you that this is the case when it comes to Russia's track record on its multilateral and bilateral arms control commitments.⁸⁷

The following discussion of the RS-26/Rubezh issues is based mainly on Russian open sources since the Obama administration has said little about it. In May 2012, the Russian Defense Ministry announced the successful launch of a "new type" of ICBM, the second new ICBM announced since the ratification of the New START Treaty in December 2010. The Russian Defense Ministry was unusually tight-lipped about this launch, not even revealing the name or designator of the new missile. It stated only that this "new type" of mobile ICBM made maximum use of existing components.⁸⁸ Russian press reports were contradictory, ranging from reports that the new missile was a Bulava 30 SLBM derivative to reports it was a modified SS-27 Mod 2 (RS-24/YARS) or even a larger version of the SS-27. Note that all these reports say the missile is a derivative of an ICBM or SLBM which brings New START into play.

The unusual Russian secrecy about this new missile raised concerns that Russian silence relates to a treaty compliance issue. When a compliance issue is involved, Russia has avoided providing technical details about a new missile. An example of this is the MIRVed SS-27 (which Russia calls the RS-24 or Yars) for which there is much evidence that it violated the START Treaty because the SS-27 was declared to be a single warhead ICBM and it is not permissible to increase the number of nuclear warheads from the number originally declared.⁸⁹ (Since the first launch of the RS-24 occurred on the same day as the

⁸⁷ "Republican Senators To Secretary Kerry: Nuclear Arsenal Should Only Be Reduced With Senate Approval," June 19, 2013, available at <http://www.rubio.senate.gov/public/index.cfm/press-releases?ID=899a0c36-d0dc-49ba-9c59-435b92128f8a>.

⁸⁸ "Russia test launches new ICBM prototype from Plesetsk cosmodrome," *Interfax-AVN*, May 23, 2012, available at <http://www.accessmylibrary.com/article-1G1-290599158/russia-test-launches-new.html>.

⁸⁹ The Russian SS-27 was declared as a single warhead missile. Thus, it can't be MIRVed. Both Russian sources and the U.S. Government say that the RS-24 or Yars is a MIRVed SS-27. See Mark Schneider, "The Future of the U.S. Nuclear Deterrent," *Comparative Strategy*, June 2008, p. 352, available at <http://www.ingentaconnect.com/content/routledg/ucst/2008/00000027/00000004/art00005>; Pavel Podvig, "Solomonov confirms that RS-24 is MIRVed Topol-M," September 4, 2007, available at http://www.russianforces.org/blog/2007/09/solomonov_confirms_that_rs24_i.shtml; "Russia's missile forces to replace Topol-M with multiple-warhead RS-24," *RIA Novosti*, November 30, 2010, available at <http://www.defenseblog->

first launch of the R-500, Russia may have violated both the INF and START Treaties on the same day.) Pavel Felgengauer has characterized it as a “rebranded” Topol M (SS-27).⁹⁰ In February 2014, *ITAR-TASS* called it “a modernised version of the Topol-M ICBM...”⁹¹ Russia placed no information in the START Memorandum of Understanding (MOU) data exchange on the characteristics of this missile. This is in stark contrast with what they did with regard to the original version of the SS-27 and the Bulava 30 SLBM. Moreover, the START Treaty required exhibition of a new ICBM, in which the missile and its launcher are viewed, measured and photographed. This did not take place until March 2011 under New START, after the expiration of the START Treaty in December 2009.⁹²

Had the exhibition been held under the START Treaty, the MOU information would have become unclassified after 90 days and released to the public. This would have definitively decided the compliance issue. Under New START, information relating to the MIRVed SS-27/RS-24/Yars will never be released to the public because this is prohibited by the Treaty. Information concerning the RS-26/Rubezh will also never be released for the same reason. Russia announced that the Rubezh would go on alert in 2013 but they did not meet this deadline.⁹³

As Russian expatriate Pavel Podvig has noted, “two of the three successful tests [of the RS-26/Rubezh] were conducted from Kapustin Yar to Sary-Shagan - far from a nominal range.”⁹⁴ Podvig’s source for this information is the Russian Defense Ministry.

In light of the short range to which the missile has been tested on two of the three successful tests, there appears to be little question that this missile is being developed mainly for peripheral attack. Tests of ICBMs to INF range are unusual for a new ICBM development program, particularly for one in which the missile will be, according to the Russian Defense Ministry, deployed after only four successful tests.⁹⁵ Russian Defense

njs.blogspot.com/2010_11_01_archive.html; “National Security and Nuclear Weapons in the 21st Century (Washington, D.C.: Department of Energy and the Department of Defense, 2008), p. 7, available at <http://www.defense.gov/news/nuclearweaponspolicy.pdf>; Pavel Felgenhauer, “Moscow Discusses the Future Development of ICBMs,” *Eurasia Daily Monitor*, January 13, 2011, available at: [http://www.jamestown.org/programs/edm/single/?tx_ttnews\[tt_news\]=37354&cHash=2df1c6d9cb](http://www.jamestown.org/programs/edm/single/?tx_ttnews[tt_news]=37354&cHash=2df1c6d9cb); Lieutenant General Michael D. Maples, “Statement: Annual Threat Assessment,” March 10, 2009, available at <http://www.dia.mil/public-affairs/testimonies/2009-03-10.html>; and, Ronald L Burgess, *World Wide Threat Assessment*, March 10, 2011, available at <http://armed-services.senate.gov/statemnt/2011/03%20March/Burgess%2003-10-11.pdf>.

⁹⁰ Schneider, “Russian Violations of Its Arms Control Obligations,” op. cit., p. 334.

⁹¹ “Russia’s Strategic Missile Forces will get more than 130 new simulators in 2014,” *ITAR-TASS*, February 17, 2014, available at <http://en.itar-tass.com/russia/717779>.

⁹² Ibid., “START Aggregate Numbers of Strategic Offensive Arms” (Washington, D.C.: U.S. Department of State, October 1, 2009), available at <http://www.state.gov/t/avc/rls/130149.htm>; and, “New START Treaty Implementation Update” (Washington, D.C.: U.S. Department of State, May 17, 2012), available <http://www.state.gov/t/avc/rls/183335.htm>.

⁹³ “Deployment of First Regiment With New Strategic Missile Complex Will Begin in 2014 -- General Staff,” *Interfax-AVN*, June 7, 2013, available at <http://www.wnc.dialog.com/>.

⁹⁴ Pavel Podvig, “Russia continues tests of new ICBM, named Rubezh,” *Russianforces.org*, June 6, 2013, available at http://russianforces.org/blog/2013/06/russia_continues_tests_of_new.shtml.

⁹⁵ “Putin told about successful test of new ICBM to enter service by year’s end,” *Rossiia 24 TV*, June 7, 2013, available at <http://www.wnc.dialog.com/>.

Ministry announcements of ICBM launches routinely include the launch point and the impact point. Russia has launched old SS-25 (Topol M) missiles from Kapustin Yar to Sary Shagan on several occasions, but the main stated purpose of most of these flights was related to missile defense and development of new reentry vehicles with the secondary purpose to test the reliability of the old booster.⁹⁶

Launch of an ICBM to INF range does not violate the INF Treaty. For the RS-26/Rubezh to be an actual violation of the INF Treaty, the missile would have to be a “new type,” which the Russians say it is, and the first flight of this type would have to be to INF range (500-5,500-km). Commander of the Strategic Missile Forces, Colonel General Sergei Karakayev, claims that the first successful RS-26 test went over 5,600-km.⁹⁷ This is interesting because it means that the missile warhead could not have impacted in the normal test range in Kamchatka. It implies that the flight test was conducted not for the development of a new ICBM but rather to evade the INF Treaty by establishing an IRBM as an ICBM under New START. 5,600-km is a very short range for an ICBM, particularly in light of the Russian statement that the missile delivered only a single RV during the test.⁹⁸ However, the Russians say that the missile will carry multiple maneuvering hypersonic warheads.⁹⁹ Assuming what General Karakayev said is true (and we must remember their statements could be self-serving), it would constitute a circumvention rather than a legal violation of the INF Treaty.

The Russians are now saying the RS-26 is a derivative of the SS-27, that the weight of its launchers is 40 tons lower than the RS-24/Yars, that it is cheaper than the RS-24,¹⁰⁰ and that it is MIRVed and carries hypersonic maneuvering warheads. A number of prominent Russian experts have said the RS-26 has a theater attack mission. According to *Kommersant*, former Duma Defense Committee Vice Chairman Alexsey Arbatov, said, “judging from the unofficial assessments of the experts, this system is also designed for intermediate-range targeting, which de facto corresponds to the category of missiles eliminated under the [INF] Treaty...”¹⁰¹ He also linked the MIRVed payload to intermediate-range targeting. Sergey Rogov, Vice Admiral (ret.) Valentin Kuznetsov,

⁹⁶ Pavel Podvig, “Topol launch from Kapustin Yar,” *Russianforces.org*, December 5, 2010, available at http://russianforces.org/blog/2010/12/topol_launch_from_kapustin_yar.shtml; “Recent developments within Russian strategic missile systems,” *Russianspaceweb.com*, November 5, 2005, available at http://www.russianspaceweb.com/rockets_icbm.html; “Russia has successfully tested the ‘Topol,’” *Melbourne Herald Sun*, July 6, 2012, available at <http://www.all-rss.com/item-155001-russia-has-successfully-tested-the-topol/#.UdXx4Jycsdw>; and, Hans Christensen, “Russian Missile Test Creates Confusion and Opposition in Washington,” *Federation of American Scientists*, July 3, 2013, available at <http://blogs.fas.org/security/2013/07/yars-m/>.

⁹⁷ “Russia’s Strategic Missile Forces upgrade combat control systems,” *ITAR-TASS*, January 2, 2014, available at <http://www.en.itar-tass.com/russia/713674>.

⁹⁸ Ibid.

⁹⁹ “Russia testing intercontinental missile with ‘new hypersonic’ re-entry vehicles,” *Interfax-AVN*, October 3, 2013, available at <http://www.dialog.com/proquestdialog/>.

¹⁰⁰ “Russia: New RS-26 Missile Seen as ‘Economical Replacement’ for Topol, Is INF-Compliant,” *Moscow Vedomosti Online*, October 8, 2010, available at <http://www.dialog.com/proquestdialog/>.

¹⁰¹ “Russia: US Suspicions of Russian Violations of INF Treaty Refuted,” *Kommersant*, December 12, 2013, available at <http://www.dialog.com/proquestdialog/>.

Colonel General (ret.) Viktor Yesin and Major General (ret.) Pavel Zolotarev, experts associated with the USA and Canada Institute of the Russian Academy of Sciences, have called the Rubezh “an ICBM but with reduced flight range (consequently, it can accomplish missions for the destruction of targets in the European Theater).”¹⁰²

A 2013 unclassified Air Force intelligence report made an obvious reference to the RS-26. It describes the “new ICBM” (the Russians had not yet called it the RS-26) as having “at least two stages” and a range of 5,500-km+.¹⁰³ It indicates its range is much lower than any other Russian ICBM. By comparison, it lists the range of the SS-19 as 9,000-km+, the SS-18 as 10,000-km+, the SS-25, the SS-27 Mod-1, and the SS-27 Mod-2 as 11,000-km. Russian sources support the Air Force intelligence assessment of the new missile.

In December 2013, Russia made it clear that the RS-26/Rubezh is significantly lighter than the Russian RS-24 ICBM (SS-27). The Commander of the Strategic Missile Forces, Colonel General Sergei Karakayev, said, “If we are to speak about the Yars [RS-24/SS-27 Mod 2] land-based mobile system, the launcher weighs more than 120 tonnes. The new missile [RS-26] will weigh less, no more than 80 tonnes.”¹⁰⁴ Pavel Podvig, a Russian émigré who specializes in Russian strategic systems, has written, “Although the missile is legally indeed an ICBM, it may well be that the demonstrated range of 5,800-km is close to the maximum range of the missile.”¹⁰⁵ (General Karakayev said later that the range in this test was over 5,600-km and the Russian announcement of the test indicated that it carried only a single RV.) Thus, if Podvig is correct, the RS-26 may be unable to propel its MIRV warhead package to even minimum ICBM range and the missile would not have enough range to target the U.S. from any likely launch point. If so, the missile is clearly a replacement for the Soviet SS-20 MIRVed IRBM eliminated by the INF Treaty. This is the basis of the judgment that it is a circumvention of the INF Treaty.

For many years Russia has been talking about creating a two stage SS-27 to perform the role of an intermediate-range missile. In December 2011, Moscow’s Institute of Thermal Technology general designer Yuri Solomonov said, “The transformation of an intercontinental missile into a shorter range missile is not a very difficult task. There are certain problems but they are solvable.”¹⁰⁶ In the words of Colonel General (ret.) Viktor Yesin, former Commander of the Strategic Missile Force, “Roughly speaking, if the third-

¹⁰² “Russian Experts Assess U.S. Missile Defense Capabilities, List Topics for Arms Negotiations,” *Nezavisimoye Voyennoye Obozreniye Online*, August 5, 2013, available at <http://www.dialog.com/proquestdialog/>.

¹⁰³ “Ballistic and Cruise Missile Threat” (Wright-Patterson Air Force Base, OH: National Air and Space Intelligence Center), p. 21, available at <http://www.afisr.af.mil/shared/media/document/AFD-130710-054.pdf>.

¹⁰⁴ “Russia’s Strategic Missile Forces upgrade combat control systems,” op. cit.

¹⁰⁵ Pavel Podvig, “Too many missiles - Rubezh, Avangard, and Yars-M,” *Russianforces.org*, July 6, 2013, available at <http://www.russianforces.org/blog/>.

¹⁰⁶ “Possible to transform intercontinental missile into shorter range missile – designer,” *Interfax-AVN*, December 20, 2010, available at <http://business.highbeam.com/407705/article-1G1-244976711/possible-transform-intercontinental-missile-into-shorter>.

stage engine is removed from our three-stage inter-continental ballistic missile Topol-M [SS-27], one will have an intermediate range missile.”¹⁰⁷

According to Pavel Podvig, it is “possible that the new missile takes the first two stages of RS-24 - this was done in the past with Temp-2S [SS-16 ICBM] and Pioneer/SS-20 [IRBM] and it will be compatible with various bits of information about the new TEL [transporter erector launcher] as well as much of the INF controversy.”¹⁰⁸ This could also be the basis for the claim that the RS-26 is cheaper since it is not necessary to pay for the omitted stage and it has a lighter, presumably less expensive, launcher. It could also be the basis of the Russian classification of the missile as a “new type” of ICBM.

A MIRVed IRBM could technically become an ICBM under New START by flying it with a single warhead to over 5,500-km, thus evading the INF Treaty prohibition. The elimination of all START qualitative and numerical limitations on ICBMs and SLBMs in the New START Treaty makes it fairly easy to circumvent the INF Treaty. Thus, if a two stage version of the SS-27 was tested to ICBM range in the first test and the same missile tested to INF range in the second and third tests, the missile would be a circumvention of the INF Treaty rather than a legal violation.

If the START Treaty were still in effect and the RS-26/Rubezh exited a production facility as a two stage configuration with the SS-27 Mod 2/RS-24 first stage, the missile would clearly violate it due to the START Treaty’s 28th Agreed Statement that codifies classification of missiles on the basis of its first stage and imposes a major penalty if it is breached. New START has the same missile type classification rule as old START but no 28th Agreed Statement. Under START and New START the first stage of an ICBM maintained, stored and transported as an assembled missile is not supposed to leave a production facility without all its upper stages attached. This is very important to the verification regime. In the 1990s the Russians actually ran afoul of the 28th Agreed Statement when the space-launch version of the SS-25 exited the production facility with only one of its two upper stages attached to the first stage.¹⁰⁹ While the RS-26 is a weapon rather than a space-launch derivative of an ICBM, the same legal principles apply. However, absent a 28th Agreed Statement in New START, it would be difficult to argue that the RS-26 violated New START.

Had the Clinton administration enforced the 28th Agreed Statement and if it had been included in New START, it might have prevented the RS-26 at least in its current form. An alternative approach would have probably been far more expensive. Instead, the Clinton administration let the Russians off the hook,¹¹⁰ and the Obama administration agreed to the New START Treaty without the 28th Agreed Statement. If the RS-26 really is a derivative of

¹⁰⁷ “Russia, US Can Make INF Missiles In 2-4 Yrs, If Need Be – Analyst,” *ITAR-TASS*, February 20, 2010, available at <http://www.wnc.dialog.com/>.

¹⁰⁸ Pavel Podvig, “More news about RS-26 missile,” *Russianforces.org*, December 18, 2013, available at http://russianforces.org/blog/2013/12/more_news_about_rs-26_missile.shtml.

¹⁰⁹ The START Treaty, Joint Statement 21, available at http://www.acq.osd.mil/tc/treaties/start1/other/jcic_joint_statements/joint_statements_21.htm.

¹¹⁰ In Joint Statement 21, the Clinton Administration agreed to waive the penalty imposed by the 28th Agreed Statement.

the RS-24/Yars as the Russians claim, it owes its legal existence to a flawed U.S. approach to New START.

The preceding analysis assumes the Russians are accurate in their characterization of the RS-26/Rubezh as a derivative of RS-24/Yars. This may not be the case. Pavel Podvig believes that this launcher is the Rubezh missile launcher.¹¹¹ It is possible that it carries a missile smaller and lighter than a two stage RS-24/Yars.

A *Vesti.ru* newscast contains a video of the launcher used in the second RS-26 test that appears to confirm Podvig's conclusion that this is the RS-26 launcher. Podvig has pointed out that this new mobile launcher can't carry the SS-27 Mod 2/Yars missile. Podvig's conclusion appears consistent with what General Karakayev has said about the weight of the Yars launcher and the RS-26 launcher.¹¹² The launcher appears similar to the type of launchers the Russians use for non-canisterized theater attack missiles.

After the first flight-test, *Vedomosti* reported that the missile now called the RS-26 is fairly small.¹¹³ *Kommersant* has said, "According to Kommersant information, the officially unnamed missile complex in fact is a ground-based analog of the Bulava."¹¹⁴ It quoted its sources as saying that the missile is similar to Bulava, with the weight of about 36 tons and the length of about 12 meters. This would be a missile that might fit on the six-axle Transporter Erector Launcher TEL depicted above. *Lenta.ru* also reported, "According to unconfirmed information, the new missile is a ground version of the Bulava sea-launched complex..."¹¹⁵

The missile *Kommersant* describes would probably be accountable as a Bulava 30 SLBM under New START. Pavel Podvig also has suggested that the RS-26 is a land-based Bulava 30.¹¹⁶ Using a three stage Bulava 30 as an "ICBM" would likely be a cheaper option than a two stage version of the Yars or a two stage version of the Bulava 30 because they would likely need a more extensive flight test program.

In the middle part of the last decade there was an announced Russian program to develop a common missile based upon the Bulava 30.¹¹⁷ This never made much sense for an ICBM but it could perform the IRBM attack role quite well. It is interesting that after the September 2013 launch failure of the Bulava 30, talk about an early deployment of the RS-26 terminated in Russia. Is there a connection?

¹¹¹ Podvig, "Too many missiles - Rubezh, Avangard, and Yars-M," op. cit.

¹¹² Ibid.

¹¹³ Aleksey Nikolskiy, "New Avangard Missile Seen Replicating Skorost-, Kuryer-Type Lightweight ICBM, 'Avangard Enigma'," *Vedomosti Online*, October 2013, available at <http://www.dialog.com/proquest/dialog/>.

¹¹⁴ Ivan Safronov, "Bulava Resurfaces in Plesetsk: What Sort of Missile In Point of Fact Did They Launch Yesterday in Russia," *Kommersant*, May 25, 2012, available at <http://www.dialog.com/proquest/dialog/>.

¹¹⁵ "Russia Successfully Tested a New Ballistic Missile To Spite the European Missile Defense," *Lenta.ru*, May 26, 2012, available at <http://www.wnc.dialog.com/>.

¹¹⁶ Ibid.

¹¹⁷ Mark. B. Schneider, "The Nuclear Forces and Doctrine of the Russian Federation" (Fairfax, VA: National Institute Press, 2006), p. 11, available at <http://www.nipp.org/Publication/Downloads/Publication%20Archive%20PDF/Russian%20nuclear%20doctrine%20--%20NSF%20for%20print.pdf>.

If these reports are true and the missile is a three stage Bulava 30, it clearly violates the New START Treaty. The Bulava 30 is an SLBM and the START Treaty provides that, "Each Party shall install deployed launchers of SLBMs only on ballistic missile submarines."¹¹⁸ A two stage Bulava 30 derivative would, at a minimum, be a circumvention of the INF Treaty because its role would clearly be theater attack. Again, the omission of the 28th Agreed Statement in New START makes this possible. A Bulava 30 would make no sense for an ICBM role because its capabilities would be marginal to attack the U.S. from likely deployment areas even if it were the three stage Bulava 30. According to the Air Force intelligence report on worldwide missile capability, the three stage Bulava 30 has about 3,000-km less range than the RS-24/Yars.¹¹⁹ As noted above, a range of 5,500-km legally makes a ground-launched missile an ICBM but it does not give the missile real ICBM targeting capability against the U.S.

Podvig's analysis¹²⁰ could explain the changing names for RS-26 missile. First calling it a Yars-M could have been linked it to a desire not to raise the issue of INF compliance by suggesting it was an ICBM. The name "Rubezh" may be linked to a need to avoid explaining why the Yars-M was not a Yars, which would be the case if it is a Bulava 30 derivative.

To come to a definitive judgment on the RS-26/Rubezh it would be necessary for the Obama administration to provide unclassified information concerning what has actually happened. We would need to know the characteristics of the RS-26, how they compare to the SS-27 Mod 2/RS-24 and the Bulava 30 and how far it went on the first successful test.

The threat to U.S. allies from the RS-26/Rubezh is quite substantial. If the missile were placed on a rail mobile launcher, it would be completely outside of any arms control limitations. Significantly, the New START Treaty omitted all references to rail mobile ICBMs and changed the mobile ICBM launcher definition to exclude them.¹²¹ Not surprisingly, Russia has announced it is developing a rail mobile ICBM.¹²² It will reportedly be based on the Yars.¹²³ Hence, it is certainly possible that the RS-26 will end up on rail mobile launcher and hence not limited in numbers by New START unless the Treaty is amended.

¹¹⁸ The New START Treaty, Article 4, paragraph 12, available at <http://www.state.gov/t/avc/newstart/c44126.htm>.

¹¹⁹ "Ballistic and Cruise Missile Threat," op. cit., p. 21.

¹²⁰ Podvig, "Too many missiles - Rubezh, Avangard, and Yars-M," op. cit.

¹²¹ Schneider, *New START: The Anatomy of a Failed Negotiation*, op. cit., pp. 7-9; Christopher Ford, "Does 'New START' Fumble Reloads and Rail Mobile ICBMs?," *Newparadigmsforum.com*, April 26, 2010, available at http://www.newparadigmsforum.com/New_Paradigms_Forum/Nuclear_Weapons/Entries/2010/4/26_New_START_Fumbles_Missile_REloads_and_Rail-Mobile_ICBMs.html; and, "An Independent Assessment of New START Treaty," Heritage Foundation, April 30, 2010, available at <http://www.heritage.org/Research/Reports/2010/04/An>.

¹²² "Russia Plans Rail-Mounted Missiles to Counter US Global Strike Program," *Ria Novosti*, December 18, 2013, available at http://en.ria.ru/military_news/20131218/185683711/Russia-Plans-Rail-Mounted-Missiles-to-Counter-US-Global-Strike.html; "Russia designing 'new' rail-mobile ICBM system, troops getting new missiles," *Intefax-AVN*, December 13, 2013, available at <http://www.dialog.com/proquest/dialog/>; and, "Russia steps up developing new rail-mobile missile systems," *Interfax*, December 26, 2012, available at http://rbth.ru/articles/2012/12/26/Russia_steps_up_developing_new_rail-mobile_missile_systems_21476.html.

¹²³ "Russia successfully tests latest 'YARS' intercontinental ballistic missile," *RT*, December 24, 2013, available at <http://rt.com/news/yars-missile-russia-launch-729/>.

THE MOSCOW ABM AND SURFACE-TO-AIR MISSILE (SAM) ISSUES

The issue of whether or not the Moscow ABM system, the S-300 and S-400 surface-to-air missiles and the new S-500 ABM system now under development in Russia have prohibited INF capabilities depends largely on the fact situation since the legal issues are clear. If what has been reported in the Russian press is true, Russia has violated the INF Treaty. This may also explain the ridiculous Russian charges that the U.S. GBI missile is a prohibited INF missile system. Russia tends to mirror image its own behavior on to the U.S.

In July 2010, Pavel Felgengauer, a distinguished Russian journalist, wrote: "...Moscow plans to covertly quit the 1987 treaty on medium and short-range missiles" because the Russian S-300 and the S-400 air defense missiles, the new S-500 air and missile defense interceptor and the Moscow ABM interceptors are nuclear armed and can function as "dual-use as conventional or nuclear medium or shorter range ballistic missiles."¹²⁴ He has also written that such capability was actually "demonstrated" in the Russian Vostok-2010 military exercise conducted in the Far East.¹²⁵ *Red STAR*, the official newspaper for the Russian Defense Ministry, has reported that Russia has 700 nuclear warheads for the Moscow ABM and its surface-to-air missiles.¹²⁶

The INF Treaty contains an exception to allow for missile defense and air defense interceptors missiles used "solely" for air or missile defense,¹²⁷ but that exception would be lost if it also had a surface-to-surface role. Absent this exception, many ABM interceptor missiles and surface-to-air missiles would be prohibited by the INF Treaty. If what Felgengauer claims is true, the Moscow ABM system violated the INF Treaty since its first day in force. The range of some of its interceptors was long.¹²⁸ Whether the S-300 and S-400 surface-to-air missiles violate the INF Treaty depends upon their testing history. If the S-500 has a surface-to-surface role, it would be virtually impossible for this missile with a stated intercept range of 600-km¹²⁹ not to violate the INF Treaty once it is fully tested.

¹²⁴ Pavel Felgengauer, "Russia Seeks to Impose New ABM Treaty on the US by Developing BMD," *Eurasia Daily Monitor* Volume: 7 Issue: 136 July 16, 2010, available at [http://www.jamestown.org/single/?no_cache=1&tx_ttnews\[tt_news\]=36624](http://www.jamestown.org/single/?no_cache=1&tx_ttnews[tt_news]=36624).

¹²⁵ Ibid.

¹²⁶ "In a Broad Context," *Krasnaya Zvezda Online*, April 29, 2011, available at <http://www.dialog.com/proquestdialog/>.

¹²⁷ The INF Treaty, Article VII, paragraph 3, available at <http://www.acq.osd.mil/tc/treaties/inf/text.htm#article4>.

¹²⁸ *Soviet Military Power* (Washington, D.C.: U.S. Department of Defense, 1987), p. 47.

¹²⁹ "Russia Develops the S-500 – a New Anti-Missile Defense System," *Defense Update.com*, September 26, 2009, available at http://defense-update.com/20090925_s-500.html; "Russia: S-500 Missile Defense System To Enter Service in 2015," *Moscow Argumenty Nedeli Online*, October 14, 2010, available at <http://www.dialog.com/proquestdialog/>; and, "S-500 Development Will Be Completed in 2015," December 22, 2009, available at <http://www.dialog.com/proquestdialog/>.

CONCLUSION

The Russian INF Treaty non-compliance described in the Russian press is fully consistent with historic Soviet/Russian compliance behavior and the pattern of Russia threatening preemptive nuclear strikes against U.S. missile defenses deployed in Europe.¹³⁰ The U.S. government, until recently, has ignored this activity. Two weeks after the State Department confirmed *The New York Times* story concerning INF violations, Rose Gottemoeller, Acting Under Secretary of State for Arms Control and International Security delivered a speech entitled “Security Arm Control Priorities in 2014 and Beyond.” It did not say a word about INF Treaty compliance or compliance in general. Her main agenda item was stated to be the ratification of the Comprehensive Test Ban Treaty which has its own set of outstanding Russian compliance issues.¹³¹

The Obama administration’s own compliance reports confirm that no meetings of the INF Special Verification Commission were held and no INF issues were raised with the Russians through the end of 2012.¹³² In light of the evidence reported in *The New York Times* account and by the Congressional leaders about cruise missile testing, the apparent inability of the Obama administration to reach a logical conclusion on compliance is troubling. There are no legal issues impacting this decision. The Obama administration is apparently ignoring its own interpretation of U.S. law relating to public disclosure of arms control violations. According to the administration’s 2012 compliance report, 22 U.S.C. 2593a(6) requires that the unclassified version of the compliance report “identifies questions [about foreign arms control compliance], to the maximum extent practicable.”¹³³ The State Department’s confirmation of *The New York Times* report certainly makes an unclassified compliance report “practicable.” It is also troubling that, according to *The New York Times* and other reports, the Obama administration knew about INF violations for years and did not even raise the issue with Russia until May 2013.

The general approach of the Obama administration has been to provide the public almost no information on Russian arms control violations and it appears not to press Russia on compliance issues. In addition to saying nothing about INF compliance issues, the State Department’s 2010 compliance report only named START Treaty issues that had been resolved, but did not talk about other outstanding compliance issues. It revealed, “The United States raised new compliance issues since the 2005 Report,” but did not identify them.¹³⁴ It said that some of the new issues “were closed” but gave no further explanation of what those issues were, or how and why they were closed, or what issues

¹³⁰ Schneider, “The Future of the U.S. Nuclear Deterrent,” op. cit., pp. 349-350.

¹³¹ Schneider, “Russian Violations of Its Arms Control Obligations,” op. cit., pp. 344-347.

¹³² Ibid., p. 6.

¹³³ Ibid., p. 1.

¹³⁴ *Adherence to and Compliance with Arms Control and Nonproliferation Agreements and Commitments*, July 2010, p. 8, available at <http://www.state.gov/documents/organization/145181.pdf>.

remain.¹³⁵ Subsequent reports merely assert complete Russia compliance with New START, which seems unlikely given the State Department's own 2011 report which states, "As expected, there have been differences and concerns with implementation."¹³⁶ The report fails to elaborate on those "differences" and "concerns."

A compliance judgment about the cruise missile issue is long overdue. A serious review of the Skorost retention issue, the RS-26/Rubezh issue, the Iskander M range issue and the dual role of Russian ABM and air defense missiles is certainly warranted. Beyond that, a penalty must be imposed on Russia for its violations and circumventions of the INF Treaty. A finding of a material breach of the INF Treaty is clearly warranted. Attempting to negotiate a new arms control agreement as President Barak Obama proposed in his June 2013 Berlin speech while Russia is violating existing agreements is quite dangerous to U.S. national security. As President Reagan observed, "Simply collecting agreements will not bring peace. Agreements genuinely reinforce peace only when they are kept. Otherwise, we are building a paper castle that will be blown away by the winds of war."¹³⁷

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¹³⁵ Ibid.

¹³⁶ "The New START Treaty" (Washington, D.C.: U.S. Department of State, October 11, 2011), available at: <http://m.state.gov/md175945.htm>.

¹³⁷ President Ronald Reagan, "Remarks in New York, New York, Before the United Nations General Assembly Special Session Devoted to Disarmament," June 17, 1982, available at http://www.reagan.utexas.edu/archives/speeches/1982/61782a.htm_.