



PROCEEDINGS

LESSONS LEARNED FROM RUSSIA'S INVASION OF UKRAINE— ONE YEAR LATER

The remarks below were delivered at a symposium on “Lessons Learned from Russia’s Invasion of Ukraine—One Year Later” hosted by the National Institute for Public Policy on February 21, 2023. The symposium discussed the implications of the conflict for extended deterrence and assurance of allies; the U.S. ability to deter aggression in multiple theaters of operation; and the prospects for escalation involving the potential use of nuclear weapons. In addition, the webinar considered alliance implications and the prospects for continued NATO solidarity, as well as implications for the U.S. defense industry.

David J. Trachtenberg

David J. Trachtenberg is Vice President of the National Institute for Public Policy and served as Deputy Under Secretary of Defense for Policy from 2017-2019.

Three days from today will mark one year since Russia’s latest invasion of Ukraine. Much has already been written about what we should take away from this conflict—especially Russia’s poor military performance. Moscow’s inability to subjugate Ukraine after a year of intense and bloody fighting suggests there are numerous lessons to be learned—lessons applicable to the United States, NATO, Russia, Ukraine, and America’s other friends and enemies.

First, this conflict has exposed the fallacy of what has been called “deterrence by detection” or “deterrence by disclosure.” Prior to Russia’s invasion, senior Biden Administration officials stated that publicly exposing Moscow’s actions would serve as a deterrent to Russian aggression. A significant amount of intelligence information was released as part of a “name and shame” approach. However, simply telling Russia we knew what they were up to in planning to invade Ukraine, and that they would be severely penalized if they violated Ukraine’s sovereignty and territorial integrity, was clearly insufficient as a deterrent.

So, I would argue that one lesson is that aggressors bent on conquest are unlikely to be deterred by threats they consider less important than the goals they seek to achieve by waging war. For deterrence to work, there must be an accurate understanding of the objectives and motivations of an adversary. Lacking this, deterrence is problematic.

Second, we have learned that America’s “arsenal of democracy” lacks timely resilience. Russia’s war against Ukraine has exposed shortcomings in the U.S. defense industry’s ability to produce and resupply weapons, as inventories decline, and the pace of weapons transfers exceed industry’s ability to replenish stockpiles. One recent report characterized this as an “empty bins” crisis, noting, “The U.S. defense industrial base is not adequately prepared for the international security environment that now exists.... In a major regional conflict—such



as a war with China in the Taiwan Strait—the U.S. use of munitions would likely exceed the current stockpiles of the U.S. Department of Defense.”¹

U.S. allies are encountering similar problems. As NATO Secretary General Stoltenberg stated last week, “The war in Ukraine is consuming an enormous amount of munitions and depleting allied stockpiles.... The current rate of Ukraine’s ammunition expenditure is many times higher than our current rate of production....” For large-caliber ammunition, he noted that “orders placed today would only be delivered two-and-a-half years later.”²

Third, although NATO has remained unified to date in support for Ukraine, concerns that the war may become a “frozen conflict” lasting for years suggest fissures may open in alliance unity—including domestically in the United States—that ultimately work to Russia’s advantage. So, what some may see as a Russian failure may turn out to be quite the opposite the longer the conflict drags on.

Fourth, some believe Russia has learned from its mistakes and has shown an ability to adapt its tactics, such as using swarms of drones to disable Ukraine’s infrastructure and electronic warfare capabilities that disrupt Ukrainian military communications.³ Notwithstanding its battlefield problems, Russia may be down, but it is not out, despite the Chairman of the Joint Chiefs of Staff, Gen. Mark Milley, stating, “Russia has lost... strategically, operationally and tactically.”⁴

Fifth, a strategy of incrementalism is not a strategy of victory. U.S. support to Ukraine has been slow, halting, and reactive. The Biden Administration’s fear of escalation allowed Putin to seize the initiative and to determine the contours of the U.S. and Western response. This is hardly a formula for success now or in the future.

Sixth, some have speculated that the prospect of nuclear escalation has deterred Russia from considering nuclear use. Yet, one year on, and having laid the predicate for nuclear use by declaring that Ukraine poses an existential threat to the Russian Federation (as Putin declared again today),⁵ is Moscow willing to accept a conventional defeat without escalating to the nuclear level? As one analyst recently commented, “We should not assume that

¹ Seth G. Jones, *Empty Bins in a Wartime Environment: The Challenge to the U.S. Defense Industrial Base*, Center for Strategic and International Studies, January 2023, p. 1, available at https://csis-website-prod.s3.amazonaws.com/s3fs-public/2023-01/230119_Jones_Empty_Bins.pdf?VersionId=mW30Ongwul8V2nR2EHKBYxkpiOzMiS88.

² “NATO chief says Ukraine’s ammunition use outstripping supply,” *Associated Press*, February 13, 2023, available at <https://apnews.com/article/russia-ukraine-nato-politics-jens-stoltenberg-business-c50b44b430ae86f289baee9da5e35345>.

³ Dara Massicot, “What Russia Got Wrong: Can Moscow Learn From Its Failures in Ukraine?,” *Foreign Affairs*, March/April 2023, available at <https://www.foreignaffairs.com/ukraine/what-russia-got-wrong-moscow-failures-in-ukraine-dara-massicot>.

⁴ Tassilo Hummel and Charlotte Van Campenhout, “Chairman of US Joint Chiefs of Staff: ‘Russia has lost strategically, operationally and tactically,’” *Reuters*, February 14, 2023, available at <https://www.reuters.com/world/us/chairman-us-joint-chiefs-staff-russia-has-lost-strategically-operationally-2023-02-14/>.

⁵ Speaking about the conflict in Ukraine during his Presidential Address to the Federal Assembly, Vladimir Putin asserted that “this represents an existential threat to our country.” See Presidential Address to Federal Assembly, February 21, 2023, available at <http://www.en.kremlin.ru/events/president/transcripts/messages/70565>.

Russian nuclear threats are mere rhetoric.... escalatory processes have a way of driving leaders to behavior they never would have contemplated in normal times.”⁶

Seventh, one must ask if the U.S. intelligence community severely underestimated Ukraine’s ability and determination to defend itself against a larger and more capable foe. Perhaps it is time to reevaluate the methods and analytic approach the intelligence community uses and to conduct a “Team B” type assessment of the IC’s processes.

Eighth, Ukraine has learned that even a superior military force commanded by an authoritarian leadership with little sympathy for the principles of basic human decency can be stymied, if not defeated, by a free people determined to shape their own future for themselves.

Ninth, U.S. allies and friends rightfully wonder if the U.S. extended nuclear deterrent remains credible, or if the American nuclear umbrella has so many holes that they need to consider acquiring nuclear weapons themselves to guarantee their own security.

Tenth, Russia’s trashing of the 1994 Budapest Memorandum that guaranteed Ukraine’s independence, sovereignty, and territorial integrity demonstrates that Moscow will ignore any agreement that doesn’t serve its purposes, meaning the prospects for meaningful arms control are practically nil. In fact, today Putin announced that Russia is suspending its participation in the New START Treaty.

Finally, China has learned that the United States has established red lines for itself when confronting a major nuclear adversary. And that the U.S. defense industrial base would apparently be hard-pressed to support a major conflict over Taiwan. Moreover, Beijing has learned that actions taken now to offset the potential economic penalties it may face from taking aggressive military actions may insulate it from the effect of Western sanctions.⁷ All of this bodes ill for deterrence of Chinese aggression against the island.

There are no doubt other lessons to be learned from the Russia-Ukraine conflict, but I will leave them to our panelists to discuss.

Keith B. Payne

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

Thank you, Dave. It is an honor to participate with this panel today. As always, I must note that my remarks reflect only my own personal views.

According to Admiral Charles Richard, then Commander of Strategic Command, deterrence working as we expect is needed for U.S. military planning at all levels: “Every

⁶ Loren Thompson, “Washington Is Escalating Its Military Role In Ukraine. What Happens When Russia Reacts?,” *Forbes*, February 13, 2023, available at <https://www.forbes.com/sites/lorenthompson/2023/02/13/washington-is-escalating-its-military-role-in-ukraine-what-happens-when-russia-reacts/?ss=aerospace-defense&sh=75921ca0659b>.

⁷ Evan A. Feigenbaum and Adam Szubin, “What China Has Learned From the Ukraine War,” *Foreign Affairs*, February 14, 2023, available at <https://www.foreignaffairs.com/china/what-china-has-learned-ukraine-war>.

operational plan in the Department of Defense, and every other capability we have in DOD, rests on the assumption that strategic deterrence, and in particular nuclear deterrence, ... is holding right. And, if that assumption is not met, particularly with nuclear deterrence, nothing else in the Department of Defense is going to work the way it was designed.”⁸ That reality should make U.S. defense planners truly uncomfortable because the functioning of deterrence is increasingly problematic. When deterrence is essential but problematic, America has a significant challenge ahead.

This point is pertinent to developments in the war in Ukraine over the past year because those developments illustrate in an irrefutable way that today’s deterrence challenge exceeds that of our Cold War experience and policy. The basic principles of deterrence theory endure, but its application must be adjusted to specific conditions and circumstances. The contemporary developments fully on display in Ukraine cast doubt on our accumulated wisdom about the application of deterrence and what we think we know about how deterrence will work.

Misreading the Times

Immediately following the Cold War, many Western leaders, academics and commentators were convinced that a “new world order” was emerging. George H.W. Bush described this “new world order” in which “the principles of justice and fair play protect the weak against the strong.”⁹ Nuclear weapons and deterrence were to play an ever-declining role and great power war was expected to be a thing of the past. German Foreign Minister Westerwelle labeled nuclear weapons “relics of the Cold War.”¹⁰ The U.S. “unipolar power” era was to transform the old anarchic, war-prone international system—establishing the basis for global nuclear disarmament.¹¹

Yet, Moscow’s invasion of Ukraine and nuclear threats over the past year prove as nothing else could that the widespread expectations of a new world order following the Cold War were as bogus as have been all such past expectations of a coming new world order—whether with the League of Nations following World War I or the United Nations following World War II.

Correspondingly, a fundamental development of this past year that now challenges deterrence expectations is that Russia includes—indeed, it highlights—coercive nuclear first-use threats in its repertoire of power. For years, and even after Russia’s invasion of

⁸ Quoted in, Amy Hudson, “Richard Says Nuclear Deterrence Connected to All Other DOD Capabilities,” *Air Force Magazine*, May 7, 2021, available at <https://www.airforcemag.com/richard-says-nuclear-deterrence-connected-to-all-other-dod-capabilities/>.

⁹ *Public Papers of the Presidents of the United States: George H.W. Bush (1991, Book I)*, 219-21, National Archives and Records Administration.

¹⁰ Quoted in, “U.S. Plans Help German Nuclear Arms Removal: Minister,” *Reuters*, April 7, 2010, available at <https://www.reuters.com/article/germany-nuclear-idUKLDE6360X120100407>.

¹¹ “It is difficult to think of any moment since the height of the Roman empire in which the establishment of a world state was more possible than now.” Campbell Craig, *Glimmer of a New Leviathan* (New York: Columbia University Press, 2003), pp. 171-172.

Ukraine and associated stream of nuclear first-use threats, some commentators have continued to assert that this Russian threat of nuclear escalation—its “escalate to win” regional strategy—is an exaggerated misreading of Russian doctrine.¹²

However, it now is irrefutable that Moscow uses nuclear first-use threats as part of its “escalate to win” strategy to constrain Western options in response to its expansionist aggression. And, it appears that the fear of starting “World War III,” as President Biden has put it, does indeed constrain Washington’s—and other Western capitals’—support for Ukraine.¹³ This is entirely understandable, but it illustrates the power that Russian nuclear escalation threats have to deter Western actions. Moscow’s exploitation of coercive nuclear threats to advance its revanchist regional goals—which is on display in Ukraine—compels rethinking multiple fundamental issues, including: the character of the international order; the requirements for deterrence and the prospect of its failure; U.S. freedom to defend Western interests via extended deterrence; and, the future of arms control.

Russia sees itself as being at war with the United States and is in a de facto alliance with an equally revanchist China, which appears to endorse Moscow’s goal of absorbing Ukraine.¹⁴ This geopolitical reality represents a tectonic shift for the worse in the international threat environment facing the West. Yet, much of the Washington establishment continues to speak about the emerging international context in euphemistic terms such as “Great Power competition” and the “international community,”¹⁵ as if Eurasia were a neighborhood with secure property boundaries and members who simply are engaged in a vigorous, rules-based sporting event. Hopes and expectations to the contrary, this is a grossly mistaken image of the international system.

¹² See for example, Olga Oliker, “Putin’s Nuclear Bluff: How the West Can Make Sure Russia’s Threats Stay Hollow,” *Foreign Affairs Online*, March 11, 2022, available at <https://www.foreignaffairs.com/articles/ukraine/2022-03-11/putins-nuclear-bluff>.

¹³ See for example, Vazha Tavberidze, “Former NATO Commander Says Western Fears Of Nuclear War Are Preventing A Proper Response To Putin,” *Radio Free Europe/Radio Liberty*, April 7, 2022, available at <https://www.rferl.org/a/breedlove-nuclear-fears-west-deterred/31791020.html>; Lt. Gen. Henry Obering III (ret.) and Robert Joseph, “Putin’s nuclear threats worked against Biden—we must act before China gets the same idea,” *New York Post Online*, June 21, 2022, available at <https://nypost.com/2022/06/21/putins-nuclear-threats-worked-against-biden-us-must-act-against-china/>; Richard Haass, “Op-Ed: How the nuclear weapons taboo is fading,” *Los Angeles Times*, October 19, 2022, available at <https://www.latimes.com/opinion/story/2022-10-19/russia-putin-ukraine-nuclear-weapons-tactical>; Daniel Michaels, “Jens Stoltenberg Prepares to Confront Putin in Extra Year at NATO’s Helm,” *Wall Street Journal*, July 2, 2022, available at <https://www.wsj.com/articles/jens-stoltenberg-prepares-to-confront-putin-in-extra-year-at-natos-helm-11656763204>; Shlomo Ben-Ami, “Russia’s nuclear threat has worked,” Australian Strategic Policy Institute, June 8, 2022, available at <https://www.aspistrategist.org.au/russias-nuclear-threat-has-worked/>; Nina Tannenwald, “The Bomb in the Background: What the War in Ukraine Has Revealed About Nuclear Weapons,” *Foreign Affairs Online*, February 24, 2023, available at <https://www.foreignaffairs.com/ukraine/bomb-background-nuclear-weapons>; and Joseph Cirincione, “Why Hasn’t Putin Used Nuclear Weapons?” *TheDailyBeast.com*, February 9, 2023, available at <https://www.thedailybeast.com/why-hasnt-putin-used-nuclear-weapons>.

¹⁴ Monika Scislowska, “NATO chief sees ‘some signs’ China could back Russia’s war,” *Associated Press*, February 22, 2023, available at <https://abcnews.go.com/International/wireStory/nato-chief-sees-signs-china-back-russias-war-97397155>.

¹⁵ Congressional Research Service, *Renewed Great Power Competition: Implications for Defense—Issues for Congress, Updated*, December 21, 2021, Congressional Research Service, available at <https://crsreports.congress.gov/product/pdf/R/R43838/83>.

Mistaken images of the international system cause distorted expectations about how deterrence will function. For example, the Biden Administration apparently had some confidence that Western economic sanctions and the “international community’s” censure would deter Russia from attempting to conquer Ukraine.¹⁶ This reflected the familiar Western expectation that an opponent’s fear of sanctions and condemnation from the “international community” will somehow moderate its aggression. That expectation should be recognized for the vanity and misunderstanding of Russia that it is. Events in Ukraine demonstrate beyond doubt that Russia, in league with China, despises the West’s “international community,” seeks to overturn the Western rules-based order, and is willing to inflict and accept enormous pain to do so. Recognition of this new threat environment, as is now readily apparent with developments in Ukraine, appears limited.

For example, Moscow effectively all but withdrew from New START over a year ago; Putin has now done so formally in response to Western support for Ukraine,¹⁷ and China shows zero inclination of interest in arms control. Nevertheless, many U.S. commentators and some political leaders continue to extol the virtues of, and call for a continuation of, the nuclear arms control process begun during the Cold War, as if that process is still alive and holds great potential.¹⁸ The Biden Administration’s 2022 *Nuclear Posture Review* goes so far as to claim that “Mutual, verifiable nuclear arms control offers the most effective, durable and responsible path to achieving a key goal: reducing the role of nuclear weapons in U.S. strategy.”¹⁹ Yet, for arms control to hold any such potential, the United States would need willing partners that adhere to agreed commitments. That hardly describes Russia or China.

There appears to be limited willingness in at least some Washington circles to recognize the harsh reality that is on display in Ukraine: The United States is in a new, unprecedentedly dangerous world, and a “business as usual” approach to deterrence and its requirements is now imprudent folly. Mr. Putin has set up a comprehensive rationale for nuclear first use in Ukraine and has added that he is not bluffing. His rationale for such thinking may seem absurd; but he appears sincerely to believe it. Typical Western hopes that a global “nuclear taboo” will prevent nuclear employment are now akin to expectations in the early 20th

¹⁶ See the discussion in, Paul D. Shinkman, “Putin’s Hollow Nuclear Threat,” *U.S. News and World Report*, February 24, 2023, available at <https://www.usnews.com/news/the-report/articles/2023-02-24/why-ukraine-wont-lead-putin-to-nuclear-war>.

¹⁷ Ann M. Simmons, Sabrina Siddiqui and Austin Ramzy, “Putin Suspends Nuclear Pact, Biden Says Russia Won’t Win,” *Wall Street Journal*, February 22, 2023, p. A1.

¹⁸ See for example, Joseph Cirincione, “Don’t Panic About Putin’s Nuclear Saber-Rattling: The embattled Russian leader’s latest threats aren’t grave cause for concern in the short term. But we need to change our long-term plan for managing his nukes,” *TheDailyBeast.com*, February 21, 2023, available at <https://www.thedailybeast.com/dont-panic-about-putins-nuclear-saber-rattling>; and, Matt Korda and Hans Kristensen, *If Arms Control Collapses, US and Russian Strategic Arsenal Could Double In Size*, Federation of American Scientists, February 7, 2023, available at <https://fas.org/blogs/security/2023/02/if-arms-control-collapses-us-and-russian-strategic-nuclear-arsenals-could-double-in-size/>.

¹⁹ U.S. Department of Defense, *2022 Nuclear Posture Review* (Washington, D.C.: Department of Defense, 2022), p. 1, available at <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF>.

century that world public opinion would ensure peace.²⁰ No, it is the West's nuclear deterrence strategy that must be called upon to help provide an answer.

Nevertheless, based on the familiar Cold War balance of terror narrative and the expected deterring power of censure by the "international community," many in the West remain convinced that there exists an effective global taboo against nuclear employment and, correspondingly, that only an irrational leadership could consider the first use of nuclear weapons.²¹ That is wonderfully comforting, but the truth is that when an opponent deems the prize it seeks to be its rightful due and of existential national (or personal) importance, there should be zero optimistic assumptions about what even a rational opponent will *not* dare to do.

That level of invested commitment is on display with regard to Russia's views of Ukraine (and China's views of Taiwan). In such cases, including in Ukraine, the level of commitment and willingness to accept costs is likely to be at least as weighty in determining how deterrence functions as is the number and correlation of forces, and probably more so—potentially to Russia's advantage. U.S. deterrence strategies and capabilities must recognize those truths; it is unclear that they do so.

The Enduring Value of and Need for Nuclear Deterrence

Events in Ukraine also teach us that the West's continuing aspirations for global nuclear disarmament are the contemporary great illusion. Western advocates of the UN's nuclear ban treaty often stigmatize nuclear deterrence and seek to shame those who support deterrence.²²

Yet, the past year has demonstrated once again that solemn commitments to nuclear agreements can be hollow, and that a nuclear shadow will hang over any great power crisis. The question must be asked: If NATO had no nuclear deterrent, how much confidence could the West now have that Russia would not employ nuclear weapons in the current crisis? It is not difficult to understand that the United States must be able to deter coercive nuclear escalation threats, and that means the U.S. nuclear arsenal must backstop U.S. conventional capabilities for defensive deterrence purposes in Europe and East Asia. This continuing importance of nuclear deterrence to Western security must shape the role and value Washington attributes to nuclear weapons—and should bring to an end the stigmatization of nuclear deterrence policies and capabilities.

²⁰ It should be noted in this regard that 71 percent of the Russian public reportedly supports Putin's war against Ukraine. See, Ann M. Simmons, "Putin Equates Ukraine, Nazis, Threatens to Escalate War," *Wall Street Journal*, February 3, 2023, p. A7, available at <https://www.wsj.com/podcasts/google-news-update/putin-links-war-in-ukraine-with-victory-over-nazis/7d7d79a8-a07a-4b09-a010-dc3b142fe988>.

²¹ Tannenwald, "The Bomb in the Background: What the War in Ukraine Has Revealed About Nuclear Weapons," *op. cit.*

²² See the discussion in Brad Roberts, "Ban the Bomb or Bomb the Ban? Next Steps on the Ban Treaty," *European Leadership Network, Global Security Policy Brief* (March 2018), available at <https://www.europeanleadershipnetwork.org/wp-content/uploads/2018/03/180322-Brad-Roberts-Ban-Treaty.pdf>.

In addition, a long-standing adage in Washington is that U.S. conventional strength can reduce or even eliminate U.S. reliance on nuclear deterrence, a continuing U.S. policy priority.²³ That anticipated linkage and goal may have been reasonable immediately after the Cold War, in America's "unipolar" moment. However, given the new threat environment on display in Ukraine, it should be clear that strengthening U.S. conventional forces is necessary, but that U.S. reliance on nuclear deterrence will remain regardless.

Why so? Because establishing even the U.S. conventional capabilities needed to defeat Russia and China in a regional conventional war, were the United States to do so, would likely compel Moscow and Beijing to consider more earnestly engaging in nuclear escalation, if needed, to deter or defeat U.S. power projection and thereby achieve their respective existential goals. Given events in Ukraine, it is now fully apparent that the United States must be able to deter regional conventional attacks and also opponents' nuclear escalation in the event opponents consider it as the path to victory.

In the emerging threat context in which opponents do indeed aspire to use nuclear escalation threats in just this way,²⁴ regional stability cannot be separated from U.S. nuclear deterrence capabilities. Indeed, absent a credible U.S. deterrence answer to Russia's theory of victory based on nuclear escalation threats, Moscow is likely to see regional war to advance existential goals as less risky, i.e., this apparent deterrence gap invites Russia's aggression, and likely China's. In short, there is no plausible route to lowering U.S. reliance on nuclear deterrence in this regard because Russia and China have a say in that possibility, and they are not giving the United States that option. Ignoring their voices in this matter is dangerous.

The Perception of Stakes

Another lesson from Ukraine involves how Moscow sees its stakes in comparison to how it sees Western stakes, and what that means for deterrence.

Russia deems control of Ukraine to be of existential importance; Ukraine is considered rightfully Russia's and stolen by a villainous West. Recovering Ukraine is central to Putin's version of "manifest destiny" and a matter of correcting a great, historic wrong. As noted above, Moscow clearly has a high tolerance for inflicting pain and accepting pain in pursuit of this existential goal. For an historical analogy, think of Hitler's unalterable drive to destroy the 1919 Versailles Treaty and pursuit of German *Lebensraum*.

Rightly or wrongly, Moscow appears to see an enormous asymmetry in the West's view of the stakes involved and its own, i.e., that the outcome in Ukraine is not an existential

²³ 2022 Nuclear Posture Review, op. cit., p. 2.

²⁴ See for example, Brad Roberts, "On the Need for a Blue Theory of Victory," *WarOnTheRocks.com*, September 17, 2020, available at <https://warontherocks.com/2020/09/on-the-need-for-a-blue-theory-of-victory/#>.

matter for the West.²⁵ And, again, as noted above, this asymmetry in Moscow's perception of stakes works to its coercive advantage.

How so? Moscow's theory of victory appears to be predicated on this perceived asymmetry in commitment and the associated effects of Russian nuclear threats and predictable Western fatigue. Given the perceived asymmetry in stakes and related anticipation of Western fatigue, even a frozen conflict may be to Moscow's coercive advantage. Defeat is not an option, but a conflict that outlasts the West's endurance may well be. The disgraceful U.S. 2021 withdrawal from Afghanistan does not help perceptions in this regard.

A final point in this discussion of differing perceptions of stakes in Ukraine is that deterring Russia is not simply about creating some level of threat that Moscow will find painful, and thus is expected to deter. Just brandishing a threat is *not* deterrence. U.S. deterrence strategies must compel opponents to conclude, per their own values and priorities, that the violation of U.S. redlines is a more miserable option than their continuing to accept a geopolitical condition they define as intolerable—whether that condition is continuing to tolerate an independent Ukraine or an autonomous Taiwan.

In short, U.S. deterrence threats must promise costs that are more intolerable, as opponents calculate cost, than their continuing acceptance of a world order they find intolerable. The United States must brandish a prospective cost that is greater than what our opponents will have to endure if they do not alter the intolerable status quo. That is no small task and there is no methodology that can calculate that deterrence threat requirement with confidence. Think of how this reality comports with the point that all U.S. military planning depends on deterrence working reliably. We should be concerned.

Commentators often confidently presume to know what opponents won't "dare to do," including with reference to Russia's or China's future actions. It is comforting to believe with confidence that one knows how and when deterrence will work.²⁶ That belief greatly eases the uncertainty and stress involved in deterrence calculations. But, events over the past year have illustrated that such confidence is convenient, but unwarranted and potentially dangerous. That danger now is apparent in Russia's nuclear first-use threats and its bloody drive to conquer Ukraine. It may become obvious in the Taiwan Strait.

²⁵ See Daniel Stewart, "Medvedev says 'NATO would not intervene directly' if Russia used nuclear weapons against Ukraine," September 27, 2022, available at <https://www.msn.com/en-us/news/world/medvedev-says-%C2%ABnato-would-not-intervene-directly%C2%BB-if-russia-used-nuclear-weapons-against-ukraine/ar-AA12hZnv?li=BBnb7Kz>.

²⁶ Such commentator claims are frequent. See for example William J. Perry and Tom Z. Collina, *The Button* (Dallas, TX: BenBella Books, 2020), pp. 118-119, 128, 144; Kingston Reif and Shannon Bugos, *Issue Brief: Responses to Common Criticisms of Adjusting U.S. Nuclear Modernization Plans*, Arms Control Association, May 18, 2021, available at <https://www.armscontrol.org/issue-briefs/2021-05/responses-common-criticisms-adjusting-us-nuclear-modernization-plans>. A senior analyst with the Institute for the Study of War reportedly observed with all apparent confidence that, "The likelihood of Russia choosing – or Putin choosing – to use nuclear weapons directly against the West is astronomically low. It should not even be seriously considered at this stage." Quoted in, Shinkman, "Putin's Hollow Nuclear Threat," op. cit.

Conclusion

In conclusion, after decades of Western confidence in the blossoming of a beautiful new world order, Russia's war against Ukraine over the past year has made painfully obvious that the old anarchic international system endures. In that system, Moscow will use force and nuclear first-use threats in its bid to destroy the status quo and restore its empire. The debate about that is over. And, it also is now apparent that those nuclear threats have at least a measure of the desired effect on Washington and other Western capitals. Whether Putin will choose to employ nuclear weapons is not clear and likely subject to many competing perceptions and motivations. But, the war in Ukraine illustrates the power of those threats and, correspondingly, that the Western anticipation of a declining need for deterrence and nuclear weapons—a particularly fashionable expectation in the immediate aftermath of the Cold War—should be discarded. The implications of this truth should affect U.S. calculations of its deterrence requirements vis-à-vis Russia and China.

The deterrence challenge vis-à-vis Moscow, in league with China, is now much more complex and our past confident expectations are now uncertain. This is what we have learned about deterrence after one year of brutal war in Ukraine; it is a sobering lesson that should move Western thinking away from business as usual but, as yet, appears not to have done so in important ways.

Mark B. Schneider

Mark B. Schneider is Senior Analyst at National Institute and former Principal Director for Forces Policy and Principal Director for Strategic Defense, Space and Verification Policy at DoD.

With the exception of nuclear weapons, in which case Russia has more than the rest of the world combined (in my estimate twice as many), Russia has an inferior and, in many respects, a corrupt and incompetent military. It has resulted in massive losses (reportedly near 200,000), particularly in the top ranks of the Russian military. In its Winter offensive, Russia is losing 800-1,000 personnel daily. One of Russia's strengths is that Putin is willing to accept enormous losses in order to win and, thus far, the Russian people are going along with it.

Russia will not change its ineffective Soviet-style, Moscow-centered command and control system. The Russian one-year draft system is not effective. According to Defense Minister Shoigu, the average age of the personnel mobilized is 35. This is not an effective replacement for Russia's losses.

One of Putin's biggest problems is that the Russian population does not share his dream of military glory and imperial expansion, but they are subservient to his leadership. If this was an invasion of Russia, they would fight much harder.

Former Defense Minister Anatoly Serdyukov was ousted a decade ago because of corruption, but the real reason was that he was not willing to procure new weapons systems that were inferior to Western systems. When Shoigu replaced him, this policy was reversed.

The Russian Air Force has performed poorly in the war. They suffered very heavy losses and gave up trying to do deep penetrations early in the war. Russian defense suppression was poor. They are now increasing their attacks but over Russian controlled territory, probably because of the man-portable air defense system (MANPAD) threat.

There should be a lot of aviation writers with egg on their face over their glowing treatment of Russian 4.5 generation fighters. All Russia has been able to do is fire air-to-ground missiles against targets in Ukraine and long-range air-to-air missiles against Ukrainian fighters. It is very clear the United States was right about the importance of stealth.

Russian 4.5 generation fighters use thrust vectoring; NATO fighters, except for the F-22, do not. Russia is not using it against Ukraine because Russian fighters won't dogfight. Russian fighters are exploiting their radar range advantage by staying far outside of visual range and sniping at older, less capable Ukrainian fighters with their long-range air-to-air missiles. Russia's best deployed fighters, the Su-35S and the Mig 31 interceptor, are using long-range air-to-air missiles against Ukrainian Soviet-era fighters. This would badly fail against the F-22 or F-35, which because of their stealth, advanced radars and other sensors, can kill Russian fighters before they can be detected. However, eighty percent of the U.S. air force is almost 30 years old, and the Biden administration is cutting fighter production.

Some of the problems Russia has had over Ukraine will impact U.S. 4.5 generation fighters. With only a small number of F-35s, the Navy is vulnerable to the combination of Russian surface-to-air missiles (SAMs) and highly maneuverable fighters.

The Eurofighter probably has electronic dominance over the Russian 4.5 generation fighters, but it does not have an active electronically scanned array (AESA) radar or thrust vectoring.

The Russian Su-57 "fifth generation fighter" has been used only to a limited degree. The Su-57 is not really a stealth fighter, and its electronics are very similar to the Su-35S. Still, in a beyond visual range engagement with Western 4.5 fighters it would probably win because it would have an order of magnitude stealth advantage. In a dogfight, the Su-57 is more maneuverable than any fighter other than the F-22.

The Russian surface Navy has not lived up to its hype. In addition to the sinking of the cruiser Moskva, several Russian ships have been hit by upgraded Soviet-era missiles, which should have been intercepted.

The small new Russian corvettes and frigates have a lot of offensive missile capability but don't have a lot of air defense capability. Their missiles are nuclear capable.

The Russian Army reforms since 2008, are a direct result of Russia's poor performance against the Georgian Army, when the Russian mobilization capability was proven ineffective. In Ukraine, Russia has proven very poor in combined arms operations.

According to the Director of National Intelligence, Russia has lost half of its heavy tanks in Ukraine. Russian tanks have been demonstrated to have a serious vulnerability due to their automatic loading systems and the resulting storage of ammunition. Until about a week

ago, Russia apparently had not used their vaunted Armata super tank. Its commitment is a sign of how serious Putin is about winning.

Russia has launched thousands of missiles against Ukraine. But they have had reliability and accuracy problems. Dr. Phillip Karber, President of the Potomac Foundation, has stated that one of three Russian missiles were destroying their targets, but with a 20-ton yield nuclear warhead it would double the kill rate.

In January 2023, Ukraine said that Russia only has enough missiles left for two or three more of the mass strikes it has launched in recent months (i.e., 80 missiles each.) Ukraine says that Russia is using 30 Kh-101 air-launched cruise missiles and 15 to 20 units of Kalibr ship-launched cruise missiles per month.

In November 2022, the head of Estonian intelligence stated that Russia has exhausted about two thirds of its ammunition. Russian efforts to ramp up production of armaments reportedly have not been very successful. However, NATO does not have the production capacity to support Ukraine.

If Putin survives in power, his next target is NATO. Putin's invasion of Ukraine was not an objective in itself but a "splendid little war," the intent of which was to frighten NATO into surrendering the sovereignty of its member states.

We should remember that not long ago, Putin was bragging that Russia could "strangle" all of NATO and take five NATO capitals in two days. Putin is capable of self-delusion.

As a result of Putin's invasion of Ukraine, NATO forces have been increased to a level that creates a substantially different invasion problem for Putin's inept Army. However, NATO's presence in Estonia, Latvia and Lithuania is not adequate and the United States is operating with a peacetime nuclear deterrent posture.

The Chairman of the Joint Chiefs of Staff, General Milley, is wrong when he says Putin has lost in Ukraine. Russia may eventually win. Putin is aided by the restrictions that have been placed on military assistance to Ukraine, which is allowing Ukraine to bleed over time. Putin can win either by using nuclear weapons or by destroying the Ukrainian power grid.

In sum, NATO should rethink its war plans. Announcing we will fight a purely defensive war along the border minimizes deterrence, particularly when put in the context of an inadequate nuclear deterrent posture. According to the Biden administration's *National Security Strategy*, "Russia's conventional military will have been weakened, which will likely increase Moscow's reliance on nuclear weapons in its military planning." The answer to this threat is nuclear deterrence, not McNamara like rules of engagement.

Nolan Peterson

Nolan Peterson is a former U.S. Air Force special operations pilot and journalist covering the war in Ukraine since 2014.

On the evening of Feb. 25 last year, I was in a bomb shelter in Kyiv.

Outside, you could hear a battle on the city's outskirts.

Yet, it was strangely quiet inside that underground space, even though it was crammed with hundreds of people, young and old, including many children.

But there was one sound that stood out from the silence.

It came from peoples' smartphones, as they listened, over and over again, to a speech by President Volodymyr Zelenskyy, declaring that he would not leave the city.

In that moment, I felt that Russia's initial war plan was doomed.

Even if the Russians had taken Kyiv, I believe we would still be here today, discussing the first anniversary of a war that has not ended.

Since 2014, I've witnessed how Ukrainians' pursuit of their democratic dreams has laid the groundwork for their resistance to Russia's full-scale invasion.

This past year confirmed what I already knew—that Russia cannot destroy Ukrainians' will to resist.

And now, as we look ahead to 2023—and what will surely be another tough year—it seems to me that Russia has no path toward achieving its political objectives in Ukraine.

The Ukrainian army could be defeated, but the Ukrainian people will not submit.

Recent polling shows that an overwhelming majority of Ukrainians reject making territorial concessions to end the war. And that share has gone up as the war continues.

But when it comes to victory, Ukrainians care about more than just lines on a map—they care about liberating millions of their fellow citizens who now live under Moscow's brutal occupation.

And each new Russian atrocity reinforces their resolve.

Ukrainians aren't just fighting for their freedom—they're fighting for their survival. And it's hard to fathom making concessions to an enemy that is committing a genocide against your own people.

Ukrainians have the will to fight.

They proved that nine years ago, when protesters braved sniper fire to set their country on an irreversible path toward democracy and a divorce from Russia.

The 2014 Revolution of Dignity kickstarted many of the societal changes that Ukraine needed to make in order to survive this past year.

The revolution propelled the development of Ukraine's spirit of innovation, independent thinking, and entrepreneurship—qualities that transformed civil society, as well as the military—giving soldiers the agency to innovate new tactics and technologies, and to have the flexible mindsets needed to rapidly field a mix of Western weapons.

Russia's 2014 invasion of the Donbas, and the ensuing eight years of limited warfare, also prepared Ukrainians for the full-scale war.

After 2014, Ukraine's military aimed to ditch the rigid, Soviet-style chain of command in favor of a Western model, which pushes tactical decision making down to front-line personnel.

Those changes paid huge dividends this year, allowing Ukraine's combat leaders—including its pilots—to make their own decisions based on battlefield realities, rather than taking play-by-play orders from some faraway commander, like the Russians do.

The spirit of volunteerism among Ukraine's civilians, which saved their country from disaster in 2014, also kicked into overdrive when the full-scale war began.

Literally overnight, Ukraine's civil society mobilized to support the war effort.

In particular, Ukraine's combat veterans were instrumental in holding the country together. Many rejoined the regular army. Others served in territorial defense units, or spearheaded volunteer operations.

On Feb. 4 last year, my friend Oleksandr Makhov, a journalist and combat veteran of the Donbas, told me, "My war never ended—it's just been on pause."

He reported for active duty on Feb. 24—and he died in combat near Izyum on May 4. His bereaved fiancée then enlisted, and is now serving on the front lines.

For years, combat was limited to the static front lines in the Donbas.

But the full-scale war changed all that.

No corner of Ukraine is spared from Russia's invasion—and it's an all-hands-on-deck effort to defend the homeland.

As a nine-year resident of Kyiv, and the proud husband to a Ukrainian wife, I've lived through this war alongside my friends and family.

I've lost many friends who bravely defended their country, and I've met countless civilians who've endured unimaginable trials and tragedies.

In this war, I enjoyed no quarantine between the front lines and home.

I listened to gun battles and artillery from my living room.

I saw tracers cut across the sky from my balcony.

And I had to grab my wife's arm, yank her from bed, and sprint to a bomb shelter while Russian cruise missiles struck our neighborhood, just a few blocks away.

Above all, I'll never forget the horrors I observed in Bucha, Irpin, and other areas around Kyiv right after the Russian retreat.

The criminality of Russia's war is clear. And so is the moral justice of Ukraine's cause. For my part, I'm honored to be among Ukrainians and to stand on the side of the good.

This war isn't over, but its opening chapter has ended.

Everything that happens next will happen because Ukrainians—inspired by values that we all share—bootstrapped a fighting force that defied Russia ... and won the world's respect.

Ukraine will win.

But now it's up to us, in the West, to shorten the timeline of that victory—and save countless lives in the long run—by providing Kyiv with the weapons and hardware it needs today to get the job done.