

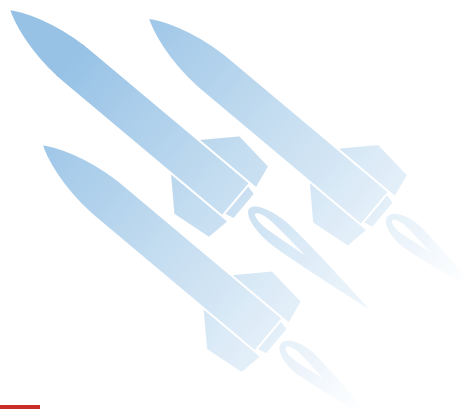


REFLECTIONS ON

NATO DETERRENCE

IN THE 21ST CENTURY

Ambassador Alexander Vershbow



In this issue's featured roundtable, Ambassador Alexander Vershbow reflects on NATO deterrence during and just after the Cold War and discusses the state of deterrence today.

In the final decades of the Cold War, the United States and Soviet Union were able to stabilize the strategic nuclear competition through arms control, beginning with the agreements reached in the first Strategic Arms Limitation Talks (SALT I) in 1972, the SALT I Interim Agreement on strategic offensive arms, and the Anti-Ballistic Missile Treaty. Those agreements and subsequent accords codified mutual deterrence based on the assumption of mutual vulnerability and acceptance of an assured second-strike capability on both sides. Deterrence worked because both sides recognized that the costs of any aggression — conventional or nuclear — would vastly outweigh any potential gain and ran the risk of nuclear devastation.

Like today, there were concerns at the time about the potentially destabilizing impact of new weapons technologies, such as multiple independently targetable reentry vehicles on intercontinental ballistic missiles (ICBMs), which experts feared could make it easier to carry out a disarming first strike. Another controversial new system was the long-range cruise missile, which seemed to blur the distinctions between conventional and nuclear and strategic and non-strategic weapons, and whose numbers and characteristics were difficult to verify with reconnaissance satellites and other “national technical means.”¹

Despite these technical challenges, Washington and Moscow were able to keep their global strategic competition within limits. Maintaining the confidence of America's NATO allies in deterrence was a more complex challenge. In those days, the conventional forces that the United States and other allies maintained along the inner-German border, while substantial in number, were not seen as sufficient to stop an attack by the even larger Soviet and Warsaw Pact forces. The alliance felt it had no choice but to rely on U.S. strategic nuclear

weapons as the ultimate deterrent against Soviet aggression. This was underpinned by the stationing of thousands of U.S. tactical nuclear weapons in Europe and the doctrine of flexible response, adopted in 1967 in place of massive retaliation.² Flexible response aimed to convince Moscow that the United States had a wide range of options along the escalation ladder, short of an all-out strategic nuclear strike, to defeat any form of Soviet aggression and that NATO was prepared to use nuclear weapons first if necessary to prevent a Warsaw Pact conquest of Europe.

The 1979 intermediate-range nuclear forces (INF) dual-track decision grew out of a crisis of confidence among America's European allies in the credibility of the flexible response doctrine following the Soviet deployment of the highly-accurate SS-20 intermediate-range nuclear ballistic missile in the mid-1970s. The allies' concern was that Moscow's ability to use the non-strategic SS-20 to strike key sites throughout Europe that were necessary for U.S. defense against a Soviet invasion could “decouple” the United States from its allies.³

At the time, there were no NATO medium-range missiles in Europe (only short-range missiles, rockets, and artillery). Thus a surprise attack with SS-20s on NATO Europe could present the United States with two unpalatable options: to escalate to the use of strategic forces, and thus invite massive Soviet retaliation against the United States; or to capitulate and allow a Soviet conquest of Europe.

Allied doubts were put to rest by the 1979 decision to station 108 U.S. Pershing II ballistic missiles and 464 U.S. Gryphon ground-launched cruise missiles in Europe, filling the perceived gap in the escalation ladder by providing NATO a credible, accurate, Europe-based “deep strike” option. The deployment of these new intermediate-range systems began in 1983, despite massive popular protests in the five basing countries. Although

1 Alexander R. Vershbow, “The Cruise Missile: The End of Arms Control?” *Foreign Affairs* 55, no. 1 (October 1976), <https://www.foreignaffairs.com/articles/usa/1976-10-01/cruise-missile-end-arms-control>.

2 *Decisions of Defence Planning Committee in Ministerial Session*, NATO Strategy Documents 1949 – 1969, DPC/D(67)23 - 11.5.1967, May 11, 1967, <https://www.nato.int/archives/strategy.htm>.

3 This analysis is based on the author's participation in the decision-making on the INF dual-track decision as a foreign service officer in the Department of State's Bureau of Politico-Military Affairs from 1977 to 1979. A short history of the decision can be found in Jason Saltoun-Ebin and Andrea Chiampan, “The Reagan Files: The Euromissiles Crisis to the Intermediate Range Nuclear Forces Treaty, 1979-1987,” *The Reagan Files*, Oct. 17, 2011, <http://www.thereaganfiles.com/document-collections/inf-treaty.html>; Ulrich Kühn and Ann Peczel, “Russia, NATO, and the INF Treaty,” *Strategic Studies Quarterly* 11, no. 1 (Spring 2017), https://www.airuniversity.af.edu/Portals/10/SSQ/documents/Volume-11_Issue-1/Peczel.pdf, also republished at <https://carnegieendowment.org/2017/02/28/russia-nato-and-inf-treaty-pub-68124>; and in William Burr, ed., “Thirtieth Anniversary of NATO's Dual-Track Decision,” George Washington University National Security Archive, Dec. 10, 2009, <https://nsarchive2.gwu.edu/nukevault/ebb301/index.atm>.



Moscow initially walked out of negotiations and sought to exploit the protests to derail the decision, NATO solidarity held, leading to the signature of the INF Treaty in 1987, the first agreement to eliminate a whole class of nuclear weapons. The INF Treaty increased stability in Europe and gave a strong impetus to the negotiation of agreements over the next two decades to reduce strategic nuclear weapons. Allies also sought to negotiate reductions in short-range and tactical nuclear weapons, although the collapse of the Soviet Union led instead to the parallel, unilateral “Presidential Nuclear Initiatives” of 1991–1992.⁴

Deterrence on the Back Burner After the Cold War

With the end of the Cold War, the danger of direct military conflict receded as both sides dramatically reduced their conventional and nuclear forces in Europe. Indeed, deterrence practically went out of fashion in the West with the dissolution of the Warsaw Pact and the breakup of the Soviet Union. In the 1997 NATO-Russia Founding Act,⁵ NATO and Russia declared that they no longer viewed each other as adversaries. Many politicians and defense officials across the political spectrum in the United States argued that deterrence and negotiated arms control agreements were no longer even necessary at a time of growing strategic partnership between a democratic Russia and the North Atlantic alliance.⁶

While NATO sometimes mentioned nuclear deterrence in its ministerial communiqués, the focus of the debate within the alliance shifted to reducing NATO’s reliance on nuclear weapons.⁷ Through the 1990s, the United States and NATO took

several steps toward that end, including de-targeting nuclear weapons, eliminating nuclear contingency plans, and reducing NATO’s non-strategic nuclear forces from more than 6,000 warheads at the height of the Cold War to the current total of fewer than 300 air-dropped bombs. NATO also separated nuclear and conventional warfighting in NATO military exercises. Responding to President Barack Obama’s vision of a nuclear-free world in his Prague speech of April 2009, NATO’s Strategic Concept of 2010 and Deterrence and Defense Posture Review of 2012 made clear that NATO’s aim was to further reduce the number and salience of nuclear weapons in NATO strategy.⁸ NATO reiterated that the conditions in which nuclear weapons would be used were “extremely remote.”⁹

Back to Basics After 2014

All this changed in 2014. With Russia’s aggression against Ukraine and the demonstration of its willingness to use force to undermine the international rules-based order, NATO faced a new strategic reality. Suddenly strategic competition with an aggressive Russia was back on the agenda. NATO once again had to worry about the threat of conventional aggression, especially against the vulnerable Baltic states and Poland. Although NATO now enjoyed overall conventional superiority to Russia, it had to reckon with Russia’s ability to concentrate forces suddenly and embark on a short-warning attack or land grab in the Baltic states. Such an attack could catch NATO, with very few forward forces and a cumbersome decision-making process, wholly unprepared. If allies were unable to mobilize forces quickly enough to respond to an incursion, it

4 “The Presidential Nuclear Initiatives (PNIs) on Tactical Nuclear Weapons at a Glance,” Arms Control Association, last reviewed July 2017, <https://www.armscontrol.org/factsheets/pniglance>. See also Susan J. Koch’s “The Presidential Nuclear Initiatives of 1991 – 1992,” Center for the Study of Weapons of Mass Destruction, National Defense University, [https://wmdcenter.ndu.edu/Portals/97/Documents/Publications/Case Studies/cswmd_cs5.pdf](https://wmdcenter.ndu.edu/Portals/97/Documents/Publications/Case%20Studies/cswmd_cs5.pdf).

5 *Founding Act on Mutual Relations, Cooperation and Security between NATO and the Russian Federation signed in Paris, France*, North Atlantic Treaty Organization, May 27, 1997, https://www.nato.int/cps/en/natohq/official_texts_25468.htm?selectedLocale=en.

6 Prominent advocates of this view were John Bolton, under secretary of state for arms control and international security in the George W. Bush administration, and President Bush himself. See “Expounding Bush’s Approach to U.S. Nuclear Security: An Interview with John R. Bolton,” Arms Control Association, accessed Aug. 10, 2021, <https://www.armscontrol.org/act/2002-03/features/expounding-bushs-approach-us-nuclear-security-interview-john-r-bolton>; and “President Bush’s Speech on Nuclear Strategy,” May 1, 2001, Arms Control Association, accessed Aug. 10, 2021, <https://www.armscontrol.org/act/2001-06/president-bush%E2%80%99s-speech-nuclear-strategy>.

7 For additional background, see Jessica Cox, “Nuclear Deterrence Today,” NATO Review, June 8, 2020, <https://www.nato.int/docu/review/articles/2020/06/08/nuclear-deterrence-today/index.html>; and Camille Grand, “Nuclear Deterrence and the Alliance in the 21st Century,” NATO Review, July 4, 2016, <https://www.nato.int/docu/review/articles/2016/07/04/nuclear-deterrence-and-the-alliance-in-the-21st-century/index.html>.

8 For Obama’s Prague speech, see “Remarks by President Barack Obama in Prague as Delivered,” Obama White House Archives, April 5, 2009 <https://obamawhitehouse.archives.gov/the-press-office/remarks-president-barack-obama-prague-delivered>. For NATO’s 2010 Strategic Concept, see “Active Engagement, Modern Defence: Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organisation adopted by Heads of State and Government in Lisbon,” North Atlantic Treaty Organization, Nov. 19, 2010, https://www.nato.int/cps/en/natohq/official_texts_68580.htm. For the 2012 Deterrence and Defense Posture Review, see “Deterrence and Defense Posture Review,” North Atlantic Treaty Organization, May 20, 2012, https://www.nato.int/cps/en/natohq/official_texts_87597.htm?selectedLocale=en.

9 This formula was first used in “The Alliance Strategic Concept,” North Atlantic Treaty Organization, April 24, 1999, par. 64, https://www.nato.int/cps/en/natolive/official_texts_27433.htm.

would allow Moscow to present the alliance with a *fait accompli* — forcing it either to capitulate or escalate to nuclear weapons.

NATO's focus beginning with the Wales Summit in 2014 was to reestablish a credible *conventional* deterrence posture based on the capacity to reinforce the eastern flank quickly in a crisis.¹⁰ It was no longer realistic or affordable to deploy large conventional forces along the eastern flank as in the Cold War, and the alliance's standing rapid-reaction force, the NATO Response Force, was not capable of deploying quickly enough to meet a possible Russian attack.

As a first step toward filling the gap, allies agreed at Wales to create a Very High-Readiness Joint Task Force to deploy rapidly in a crisis. At the Warsaw Summit two years later, allies agreed to deploy an "enhanced Forward Presence" — battalion-sized multinational battlegroups in the three Baltic states and Poland — as a tripwire. The four enhanced Forward Presence battalions — in place since 2017 and led by Germany, the United Kingdom, Canada, and the United States, and backed by troops from 18 other allies — make clear that any aggression by Moscow would immediately encounter forces from across the alliance, not just local forces, even before reinforcements arrived. But allies recognize that the small battalions alone cannot deter Russia. Reinforcement remains the key, and NATO still faces shortcomings in its rapid-reaction forces as well as in air defense, electronic warfare, intelligence, surveillance and reconnaissance, and deep-strike capabilities.¹¹

The strategy of deterrence by rapid reinforcement was further strengthened in 2017–2018 with the enhancement of the NATO command structure, the adoption of a new NATO military strategy (the first update in a decade), a joint NATO-European Union effort to improve military mobility, and the launch of the NATO Readiness Initiative, known as the "four thirties." Under this initiative, allies committed to maintain 30 ground battalions, 30 air squadrons, and 30 surface combatant ships at a high readiness

capable of deployment in 30 days or less.¹²

Although nuclear weapons remained a delicate political subject in many NATO countries, allies agreed that the renewed threat of Russian conventional aggression made it necessary to retain nuclear deterrence as an insurance policy in the event conventional deterrence failed. Although they decided at the 2016 Warsaw Summit that the reduced post-Cold War NATO nuclear force posture was sufficient, they took steps to enhance the readiness and security of allied dual-capable aircraft that formed the backbone of NATO's in-theater deterrent.¹³

At Warsaw, allies also sharpened NATO's nuclear declaratory policy to counter Russia's so-called "escalate to deescalate" strategy, under which Moscow maintained the option of first nuclear use to settle a conventional conflict on Russia's terms. Allies made clear that "any employment of nuclear weapons against NATO would fundamentally alter the nature of a conflict," and they warned Moscow that "NATO has the capabilities and resolve to impose costs on an adversary that would be unacceptable and far outweigh the benefits that any adversary could hope to achieve."¹⁴

NATO thinking evolved further during the Trump administration, in the wake of the Russian violation of the INF Treaty through the deployment of an intermediate-range cruise missile (the 9M729 — in NATO parlance, the SSC-8) that led the United States to withdraw from that landmark accord.¹⁵ While the return of intermediate-range Russian missiles raised concerns about strategic stability, the main concern was the additional threat the 9M729 could pose to NATO's ability to move conventional forces to the eastern flank (its so-called anti-access/area denial, or A2/AD, capabilities, centered on Kaliningrad in the north and occupied Crimea in the south). Allies decided that NATO did not need to reintroduce any new classes of nuclear-armed missiles in Europe to offset the 9M729 but that they would consider possible conventional responses that could neutralize the A2/

10 This summary is based on the author's participation in NATO policy deliberations from 2012 to 2018 when he served as the alliance's deputy secretary general and subsequently as a member of a senior experts' group advising the NATO supreme allied commander Europe. For an overview of NATO's efforts to bolster its conventional defense and deterrence posture post-2014, see Alexander R. Vershbow and Philip M. Breedlove, *Permanent Deterrence: Enhancements to the US Military Presence in North Central Europe*, Atlantic Council, Feb. 7, 2019, <https://www.atlanticcouncil.org/in-depth-research-reports/report/permanent-deterrence/>; and "Deterrence and Defence," North Atlantic Treaty Organization, Fact Sheet, June 25, 2021, https://www.nato.int/cps/en/natohq/topics_133127.htm.

11 See Vershbow and Breedlove, *Permanent Deterrence*.

12 See "Brussels Summit Declaration," North Atlantic Treaty Organization, July 11, 2018, paragraphs 14ff, https://www.nato.int/cps/en/natohq/official_texts_156624.htm?selectedLocale=en.

13 Background information provided to author by NATO nuclear policy directorate, July 2016. Also see "Warsaw Summit Communiqué," North Atlantic Treaty Organization, July 9, 2016, paragraphs 53–54 https://www.nato.int/cps/en/natohq/official_texts_133169.htm?selectedLocale=en.

14 North Atlantic Treaty Organization, "Warsaw Summit Communiqué," paragraph 54.

15 For a review of the history of the INF Treaty and Russia's violation with the 9M729, see "The Intermediate-Range Nuclear Forces (INF) Treaty at a Glance," Arms Control Association, last reviewed August 2019, <https://www.armscontrol.org/factsheets/INFtreaty>.



AD threat.¹⁶ The termination of the INF Treaty also opened the way for possible U.S. deployments of conventionally armed, intermediate-range missiles in the Asia-Pacific region to counter growing Chinese missile capabilities not covered by the bilateral INF Treaty.

Reflecting continued concern about Russia's sizeable arsenal of non-strategic nuclear weapons and its escalate-to-deescalate strategy, the Trump administration decided, as part of its 2018 *Nuclear Posture Review*, to deploy low-yield W76-2 warheads on a small number of submarine-launched ballistic missiles and to develop a new sea-launched cruise missile, restoring a type of nuclear delivery system from the 1980s that had been retired in 2010.¹⁷ The aim, reminiscent of the INF dual-track decision, was to show Russia that the United States had a wider range of options for limited nuclear strikes to respond to Russian first use of non-strategic nuclear weapons in Europe. By adding additional rungs to the escalation ladder, the United States was conveying the message to Moscow (and to its allies in Europe and Asia) that it could retaliate without escalating to the strategic level.

Current and Future Challenges

While allies have been supportive of the W76-2 and sea-launched cruise missile aspects of the 2018 *Nuclear Posture Review*, these programs may be reevaluated by the Biden administration as being too costly and of limited deterrent value.¹⁸ Some experts are concerned that the use of the W76-2 in a crisis could increase the risk of uncontrolled escalation, since Russia could not be sure that the missiles launched to conduct limited strikes did not carry high-yield warheads and were not the first salvo in a strategic attack.

The Biden administration has also stated publicly that it will consider the possibility of moving to a "sole purpose" declaratory posture, under which nuclear weapons would be used only to deter or respond to a nuclear attack.¹⁹ While this would reduce the role of nuclear weapons in NATO deterrence strategy, it would not necessarily remove the rationale for low-yield warheads and

nuclear-armed sea-launched cruise missiles. But ruling out any use of nuclear weapons in response to conventional aggression could be controversial within the alliance, as well as in the Congress, given the difficulty of deterring Russian aggression with conventional forces alone. It could be seen by Russia as a signal that the United States would be willing to accept a loss of territory in Europe to a Russian conventional attack rather than resort to nuclear weapons. It should be noted that Russia makes no such "sole purpose" claim but leaves ambiguous the circumstances that could warrant the use of nuclear weapons.

Looking to the longer term, NATO allies will need to reckon not only with Russia's expanding non-strategic nuclear arsenal following the demise of the INF Treaty but with the advent of new technologies such as hypersonic delivery systems and AI-enabled systems. Many analysts worry that these capabilities could upend the traditional basis for nuclear deterrence based on an assured second-strike capacity on both sides.²⁰ The United States and its allies will also need to take into account the growing nuclear and conventional capabilities of China and its willingness to use military power to expand its influence in the Asia-Pacific region and beyond.

It is not yet clear that the reintroduction of INF missiles or the deployment of hypersonic missiles will be game-changers for deterrence. Though they could make it somewhat harder to control escalation in a crisis between NATO and Russia, they may not be able to neutralize fully either side's assured second-strike capability. Nevertheless, the United States and its allies should consider how arms control could be used to reduce the impact of these technologies and maintain strategic stability for the longer term.

In the case of the 9M729, Russia has thus far produced only limited numbers of the INF Treaty-busting cruise missile, and it is unclear whether any are deployed with nuclear warheads. While conventional cruise missiles now have the accuracy to carry out strategic strikes and should, ideally, be subject to numerical constraints, it would be to NATO's advantage to prevent Russia from deploying nuclear-armed 9M729s and any other new

16 See "NATO and the INF Treaty," North Atlantic Treaty Organization, Aug. 2, 2019, https://www.nato.int/cps/en/natohq/topics_166100.htm.

17 *Nuclear Posture Review Executive Summary*, The White House, February 2018, <https://media.defense.gov/2018/Feb/02/2001872877/-1-1/EXECUTIVE-SUMMARY.PDF>.

18 See Michael R. Gordon, "Biden to Review U.S. Nuclear-Weapons Programs, With Eye Toward Cuts," *Wall Street Journal*, Dec. 24, 2020, <https://www.wsj.com/articles/biden-to-review-u-s-nuclear-weapons-programs-with-eye-toward-cuts-11608805800>.

19 See Sophia Becker and Elisabeth Suh, "How Biden's plan to limit the role of nuclear weapons challenges NATO," German Council on Foreign Relations, May 18, 2021, <https://dgap.org/en/research/publications/how-bidens-plan-limit-role-nuclear-weapons-challenges-nato>.

20 See Andrew Futter, "The Risks Posed by Emerging Technologies to Nuclear Deterrence," in *Perspectives on Nuclear Deterrence in the 21st Century*, Chatham House, April 20, 2020, <https://www.chathamhouse.org/2020/04/perspectives-nuclear-deterrence-21st-century-0/1-introduction>.

missiles capable of no- or short-warning strikes on NATO targets launched from Russian territory. Such a capability could recreate the anxieties about deterrence and “decoupling” of the U.S. nuclear guarantee that led to the 1979 dual-track decision.

To avoid this, allies would almost certainly support a proposal by the Biden administration to ban U.S. and Russian nuclear-armed short- and intermediate-range missiles — whether globally or from the Atlantic to the Urals — as part of a follow-on to the New Strategic Arms Reduction Treaty (START). While verifying the absence of nuclear warheads would be difficult, a U.S.-Russian ban on nuclear-armed INF missiles would limit the impact of the loss of the INF Treaty on strategic stability and avoid the need for politically controversial INF deployments on NATO soil. It would, at the same time, leave NATO free to deploy a range of conventionally armed missile systems to counter Russian deep-strike capabilities along with its A2/AD capabilities intended to degrade NATO’s capacity to reinforce the eastern flank. It would also protect U.S. options to deploy conventionally armed intermediate-range missiles in East Asia to counter China’s growing intermediate-range missile capabilities.

Arms control could also help mitigate the risks that hypersonic missiles may pose — risks that should not be exaggerated. Hypersonic missiles are not an entirely new phenomenon.²¹ ICBMs and submarine-launched ballistic missiles already reach hypersonic speeds in their ballistic trajectory, and neither side has the technical capacity to defend against a large-scale strategic missile attack using current missile defense technologies. Russia cites the need to overcome U.S. ballistic missile defense systems as its justification for developing hypersonic missiles and other novel systems, when in fact U.S. ballistic missile defense systems are optimized to defend against much smaller attacks from rogue states with far more primitive missile technology than Russia’s. It also should be noted that Russia has developed and deployed advanced ballistic missile defense systems of its own and is far more advanced than the West in cruise missile defense.²²

That said, it is true that Russian hypersonic cruise missiles launched from ground, aircraft, and ships, as well as hypersonic glide vehicles launched by ICBMs, could significantly shorten warning times by avoiding early detection and by flying at Mach 5 at very low altitudes. Plus, their maneuverability and dual-capability will increase uncertainty about where they are targeted and whether they are nuclear or conventionally armed. This could be destabilizing if it were to lead a defender to launch a nuclear retaliatory strike on warning of attack before being able to confirm the nature and scale of the incoming missiles. In the worst case, a limited conventional hypersonic missile strike could accidentally trigger an all-out nuclear exchange.²³

There also could be significant risks if hypersonic weapons, operating together with AI-enabled sensors in space and under the sea, achieved the capability to locate and target presently invulnerable systems like submarine-launched ballistic missiles or land-mobile ICBMs before they could be dispersed. In the worst case, this could be seen as depriving the other side of an assured retaliatory capability, undermining the fundamental basis for deterrence and strategic stability.²⁴

This risk could be reduced, however, if the number of hypersonic weapons was limited by a future START agreement and if submarine-launched ballistic missiles were distributed among a larger number of at-sea platforms to increase survivability. To incentivize Russia to agree to limits on its hypersonic deployments, the United States may need to offer a cap or at least greater transparency on U.S. and NATO missile defense deployments in Europe, which Russia claims are driving their deployment of hypersonic technologies.²⁵

Deterrence in the Gray Zone

NATO thinking on deterrence today, even more than in the Cold War, should go beyond conventional and nuclear weapons to encompass cyber and other gray-zone threats. Offensive cyber capabilities

21 Russia has two hypersonic systems in development: The *Avangard* hypersonic glide vehicle (HGV), designed to be carried by an intercontinental ballistic missile; and the *Kinzhal* (Dagger) hypersonic cruise missile, already carried by MiG-31 fighters. See Tony Wesolowsky, “Here’s What We Know About Russia’s New Generation of Nuclear-capable Weapons,” Radio Free Europe/Radio Liberty, Feb. 19, 2019 <https://www.rferl.org/a/here-s-what-we-know-russia-s-new-generation-of-nuclear-capable-weapons/29778663.html>.

22 See Jim Garamone, “Missile Defense Becomes Part of Great Power Competition,” *DOD News*, July 28, 2020, <https://www.defense.gov/Explore/News/Article/Article/2291331/missile-defense-becomes-part-of-great-power-competition/>.

23 See Dean Wilkening, “Hypersonic Weapons and Strategic Stability,” *Survival* 61, no. 5 (October–November 2019): 129–48, <https://doi.org/10.1080/00396338.2019.1662125>; and Andrew W. Reddie, “Hypersonic Missiles: Why the New ‘Arms Race’ Is Going Nowhere Fast,” *Bulletin of the Atomic Scientists*, Jan. 13, 2020 <https://thebulletin.org/2020/01/hypersonic-missiles-new-arms-race-going-nowhere-fast/>.

24 See Futter, “The Risks Posed by Emerging Technologies to Nuclear Deterrence.”

25 Thibaut Marchand and Sylvia Lanteaume “With Cutting-Edge Hypersonics, Russia Leads in New Arms Race,” *Moscow Times*, July 22, 2021, <https://www.themoscowtimes.com/2021/07/22/with-cutting-edge-hypersonics-russia-leads-in-new-arms-race-a74588>.

offer the means to inflict strategic effects without the direct use of military force — such as by disabling nuclear missiles in their launchers or by destroying or disrupting reconnaissance and command-and-control systems. Cyber capabilities complement the more traditional basket of tools used by Russia to destabilize its adversaries below the level of armed conflict (such as political subversion, economic sabotage, disinformation, and fomenting separatism). Russia uses these so-called hybrid means to undermine states and alliances, damage infrastructure, and erode social cohesion, all while concealing the identity of the attacker.²⁶

NATO has sought to deter cyber aggression, first of all, by declaring that even though the Washington Treaty refers to “armed attack” as the basis for NATO action under Article 5, a cyber attack could inflict sufficient damage to be considered the functional equivalent of an armed attack, triggering Article 5.²⁷ Beyond this, deterrence in the gray zone may depend on developing the capability to inflict equal or greater damage in response to large-scale cyber aggression and to make clear that NATO reserves the right to react symmetrically (i.e., cyber versus cyber) or asymmetrically, to include kinetic and non-kinetic options such as sanctions. In this regard, the adapted NATO Command Structure includes a new 24/7 cyber operations center at its main headquarters and allies have agreed that NATO’s Supreme Allied Commander for Europe can turn to nations with offensive cyber capabilities if needed in a conflict.²⁸

Deterring gray-zone threats poses a more difficult challenge. Efforts to define a “red line” of conflict that must not be passed by nature encourage adversaries to take action perceived as below the red line. On the deterrence side, ambiguity and flexibility can help, but more important will be to strengthen allied nations’ own resilience — to harden critical infrastructure, reduce societies’ vulnerability to subversion and disinformation, expose and shut down the movement of dark money and other sources of corruption, and improve internal security and intelligence sharing within governments and across the NATO alliance. Allies also need to be more effective in pushing back against Russian disinformation and propaganda.²⁹

NATO-E.U. cooperation on combating disinformation and establishing centers of excellence, such as the European Center of Excellence for Countering Hybrid Threats (Finland), the NATO Strategic Communications center of excellence (Latvia), and the NATO Energy Security center of excellence (Lithuania) are all important steps in this regard.

Conclusion

The bottom line is that deterrence is credible if it convinces Russia or any other adversary to refrain from aggression by complicating their choices and assuring that, under any scenario, the costs will outweigh any conceivable benefits. This requires effective, survivable capabilities and a declaratory posture that leave the adversary in no doubt that it will lose more than it will gain from aggression, whether it is a short-warning conventional attack, nuclear first use to deescalate a conventional conflict, a cyber attack on critical infrastructure, or a hybrid campaign to destabilize allies’ societies.

Although it should remain NATO’s long-term goal to reduce its reliance on nuclear weapons as much as possible, it is premature to shift to a posture under which the sole purpose of nuclear weapons would be to respond to nuclear attack. The improvements to NATO’s conventional deterrence posture undertaken since 2014 are a work in progress and still need to be backed up by the option to escalate to the use of nuclear weapons as a last resort if deterrence fails. NATO should also maintain a mix of strategic and non-strategic nuclear options to dissuade Russia from believing it can succeed with its “escalate to deescalate” strategy. That said, the low-yield W76-2 submarine-launched ballistic missile warhead and new nuclear-armed sea-launched cruise missile may not be essential given other U.S. nuclear modernization programs and the upgrade of allies’ dual-capable aircraft assigned to the nuclear mission. Creative pursuit of arms control constraints on INF and other non-strategic nuclear weapons, and on hypersonic and other non-ballistic weapons delivery systems, could help maintain deterrence and preserve stability at lower force levels. ●

26 See Jamie Shea, “Deterrence Below the Threshold of Collective Defence: Is It Possible?” in *Perspectives on Nuclear Deterrence in the 21st Century*.

27 This policy was first announced at the NATO 2014 Wales Summit and further elaborated at the Brussels Summit in June 2021. See Steve Ranger, “NATO Updates Policy: Offers Members Article 5 Protection Against Cyber Attacks, Atlantic Council,” Atlantic Council, June 30, 2014, <https://www.atlanticcouncil.org/blogs/natosource/nato-updates-policy-offers-members-article-5-protection-against-cyber-attacks/>; and Maggie Miller, “NATO Members Agree to New Cyber Defense Policy,” *The Hill*, June 14, 2021, <https://thehill.com/policy/cybersecurity/558383-nato-member-states-agree-to-new-cyber-defense-policy-following>.

28 See “Cyber Defence,” North Atlantic Treaty Council, July 2, 2021, https://www.nato.int/cps/en/natohq/topics_78170.htm.

29 See Alexander Vershbow, “Ramp up on Russia,” in NATO 20/2020, Atlantic Council, Oct. 14, 2020, <https://www.atlanticcouncil.org/content-series/nato20-2020/ramp-up-on-russia/>.

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