



ALLIANCE POLITICS IN A MULTIPOLAR WORLD*

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EXECUTIVE SUMMARY

The dogmas of the quiet past are inadequate to the stormy present.... As our case is new, so must we think anew and act anew.¹

~ Abraham Lincoln

No one that encounters prosperity does not also encounter danger.

~ Heraclitus

This article examines the evolution of U.S. extended deterrence and assurance commitments in Europe and the Indo-Pacific region and discusses the implications of the bipolar context in which they were assumed. It then discusses the rise of nuclear multipolarity and what it means for U.S. extended deterrence and assurance commitments, particularly the need to maintain credibility, flexibility and adaptability given a range of threats the United States and its allies face today and will face in the future.

The United States carries special responsibilities to assure allies and deter adversaries through its extended nuclear deterrence commitments—its “nuclear umbrella.” More than 30 countries around the world, including 29 North Atlantic Treaty Organization (NATO) members, Australia, Japan, and South Korea are currently protected under this umbrella. U.S. extended deterrence and assurance guarantees have come under strain given negative regional trends, particularly the challenge of a resurgent, revanchist Russia, the rise of China as a hostile nuclear peer, and the emergence of a nuclear-armed North Korea. Each of these countries harbor revisionist geopolitical goals, often with global implications, making their armed build-ups particularly worrisome. Given these negative developments, U.S. extended deterrence and assurance requirements must be reevaluated to ensure their continued credibility and viability. Such a reevaluation is not without precedent, as experience shows.

U.S. force posture requirements have been shaped by the necessity to extend deterrence and provide assurance to U.S. allies around the world. These requirements generate unique demands on U.S. nuclear and conventional forces, separate from the demands of deterring an attack on the U.S. homeland. They also influence U.S. declaratory policy. Extended deterrence and assurance requirements have not been static and have evolved in response to changes in U.S. and allied threat perceptions. Two prominent examples of such an adjustment stand out: the evolution of the Limited Nuclear Options (LNOs in the “Schlesinger Doctrine”) in the 1970s and the Presidential Nuclear Initiatives (PNIs) in the 1990s. These

* This article is adapted from Michaela Dodge, *Alliance Politics in a Multipolar World, Occasional Paper*, Vol. 2, No. 10 (October 2022).

¹ Abraham Lincoln’s address to Congress, December 1, 1862. Quoted in, Thomas Scheber, “Strategic Stability: Time for a Reality Check,” *International Journal* (Autumn 2008), pp. 893-915.



cases illustrate the process of shifting deterrence and assurance requirements given the changes in the strategic environment.

Today, the United States and its allies find themselves amid significant changes in the strategic environment yet again. These changes are generating new extended deterrence and assurance requirements. What remains a constant is the continuing allied desire for assurance and the U.S. continued interest in providing extended deterrence and assurance guarantees. These factors are unlikely to change in the future.

In a multipolar environment, communicating resolve, assurance, and deterrence will become more complex. Whatever strategies allies and friends will choose, the objective will be ever the same: to convince an adversary that the prospective costs and uncertainties of aggression outweigh any potential gains. U.S. and allied signals and communication will be closely monitored not just by the intended recipient but also by adversaries and allies in other parts of the world.

The United States would do well to remember that “Usually the most convincing way to look willing is to be willing.”² Currently, the United States faces several gaps that make it look less willing than it otherwise may be necessary for effective extended deterrence; chief among them are insufficient conventional forces capable of sustaining two simultaneous engagements in geographically separate regions, insufficient missile defense capabilities, and asymmetries in short- and intermediate-range nuclear forces. The following recommendations can help the United States chart a path to success in an increasingly challenging endeavor of assuring allies and deterring adversaries.

Expand Nuclear Policy Consultations. In order to understand U.S. allies’ and assurance needs in as much detail as possible, the United States ought to expand ongoing deterrence and assurance dialogues. These dialogues would keep the United States apprised of its allies’ needs and perceptions, and help develop understandings of their assurance requirements. They would help to develop a cadre of professionals that would be well-versed in nuclear deterrence issues and the nuances of nuclear weapons policies and contribute toward developing joint and hopefully better informed “strategic profiles” of adversaries.

Continue Nuclear Weapons Modernization. Although few allied countries have a detailed understanding of U.S. nuclear weapons programs and the infrastructure that supports them, many consider ongoing U.S. nuclear weapons modernization important for both extended deterrence and allied assurance. They worry about an inconsistency in the signals that the United States sends by agreeing on programs and providing good arguments in their support only to cancel them when the next presidential administration takes power. At a minimum, the United States should execute the current program of record.

Continue to Develop Missile Defense Capabilities. While missile defenses will not supplant nuclear deterrence for assurance anytime soon, they are nevertheless an important component of deterrence and allied assurance. This applies both to homeland and regional

² Herman Kahn, *On Thermonuclear War* (Princeton, NJ: Princeton University Press, 1960), pp. 213-214.

missile defense systems. The United States ought to continue to improve and expand missile defense capabilities.

Do Not Change U.S. Declaratory Policy. By potentially changing U.S. nuclear declaratory policy to reflect “sole purpose” or “no first use,” especially amid Russia’s brutal war in Ukraine, the United States would risk emboldening adversaries and alienating allies. Adversaries could interpret the change as proof the United States is deterred by their actions, while allies could interpret this as the United States not being willing to use all its might on their behalf, potentially undermining their faith in the U.S. commitment to their security. Maintaining the status quo (i.e., a measure of ambiguity with regard to the timing and scope of U.S. nuclear use) in U.S. declaratory policy will help in this regard.

Maintain Sufficient Conventional Capabilities and a Robust Production Base. The U.S. Department of Defense has felt the pressure of decreasing resources for recapitalization and modernization. Maintaining sufficient forces that can be deployed to Europe without compromising the U.S. posture in Asia (and in reverse) will continue to be important for assurance and extended deterrence. The United States should have the capacity to forward deploy additional forces in both theaters simultaneously should the security situation deteriorate. The war in Ukraine highlights the difficulties of supplying a partner nation in the middle of a conflict and the importance of prepositioning systems to the theater beforehand. It also underscores the need for maintaining a healthy and responsive defense industrial base.

Do Not Forget that Allies Are Assured by a Range of Activities. Extended deterrence and assurance guarantees are not just military capabilities but encompass a range of actions from nominating (and confirming) ambassadors in a timely manner, to high-level visits, to joint military exercises, professional exchanges, and public messaging coordination. The United States ought to utilize all the tools at its disposal to maximize synergies inherent in coordinating supportive activities well.

Nurture the Development of Nuclear Policy Expertise Among Allies. The United States must help to nurture and develop nuclear policy expertise among its allies. Continued bilateral and multilateral discussions and strategic dialogues are one way of doing so. Facilitating and supporting expert visits to nuclear sites and bases that host nuclear weapon systems is another way of developing nuclear policy expertise. This requires allies willing to invest resources and manpower in the endeavor; the United States cannot accomplish this task on its own.

Revitalize the U.S. Nuclear Warhead Production Complex. The United States must restore a flexible and resilient nuclear warhead infrastructure. This has been a (largely unfulfilled) priority of all administrations since the end of the Cold War. With China rapidly increasing the size of its nuclear arsenal and Russia developing and deploying a suite of systems unregulated by any arms control treaties, this requirement is becoming more pressing. While few experts in allied states pay attention to the status of the U.S. nuclear

infrastructure, it is inseparable from assessing the credibility of extended deterrence and assurance guarantees. A warhead issue the United States cannot address in a timely manner could be devastating to an ally's belief in the U.S. ability to respond to negative trends in the security environment quickly, with potential negative implications for the credibility of U.S. commitments to allied security.

Terminate the NATO-Russia Founding Act. Russia's aggression in Ukraine clearly is inconsistent with the Act. The United States empirically knows the valuable, stabilizing, and reassuring effects its permanent military presence has on allies. It also can be cheaper than a rotational presence. Yet, the Act currently precludes it, even as Russia aggressively undermines the stability of the European security order. In light of Russia's actions, the United States and NATO should not be bound by a debilitating agreement that the other side ignores.

Develop U.S. Regional Expertise and Understanding of Adversaries and Allies. The United States must continue to develop regional expertise to foster an understanding of the security concerns of allied countries, an endeavor that took somewhat of a back seat amid the U.S. focus on terrorism and counterinsurgency operations in the past years.

Implementing these steps would go a long way to extending deterrence and strengthening the credibility of the U.S. commitment to allied security in a multipolar environment. Russia's brutal invasion of Ukraine has led to unprecedented increases in European defense budgets and renewed commitments to transatlantic security. But it has also made clear that there are emerging deterrence gaps in the current U.S. and allied force posture. According to Admiral Richard, "The war in Ukraine and China's nuclear trajectory — their strategic breakout — demonstrates that we have a deterrence and assurance gap based on the threat of limited nuclear employment."³ This observation is particularly relevant for regional scenarios involving U.S. allies in which asymmetries between U.S. and adversaries' short- and intermediate-range nuclear arsenals are the largest and most concerning.

Extensive interviews with over 20 allied experts were undertaken as a basis for this study. According to those interviewed, the United States has done a good enough job from an extended deterrence and assurance perspective so far. No allies are seriously pondering developing indigenous nuclear weapon programs, and proposals to make a separate peace with Russia and China at U.S. expense are still largely relegated to fringe parts of the political spectrum in allied countries. But challenges, uncertainties, and questions are lurking just below the surface. As they mount, the United States will have to work harder to extend deterrence and convince allies and adversaries of the credibility of its commitment to allied security. Such a process may well require larger defense spending than what the United States has been willing to invest after the end of the Cold War, more focused consultations

³ Bryant Harris, "U.S. nuclear commander warns of deterrence 'crisis' against Russia and China," *Defense News Online*, May 4, 2022, available at <https://www.defensenews.com/pentagon/2022/05/04/us-nuclear-commander-warns-of-deterrence-crisis-against-russia-and-china/>.

and strategic dialogues with allies, and potentially new nuclear weapons and missile defense capabilities in the future. It will also require a recapitalization of the U.S. nuclear weapons complex so that it truly would be flexible and resilient and provide the United States with an ability to respond to a shifting threat environment, unforeseen challenges and problems on a reasonable timescale. These are no small tasks, but failing in them would extract immeasurable cost.

INTRODUCTION

This article examines the evolution of U.S. extended deterrence and assurance commitments in Europe and the Indo-Pacific region and discusses the implications of the bipolar context in which they were assumed. It then discusses the rise of nuclear multipolarity and what it means for U.S. extended deterrence and assurance commitments, particularly the need to maintain credibility, flexibility and adaptability given a range of threats the United States and its allies face today and will face in the future. As Admiral Charles Richard, Commander of United States Strategic Command recently pointed out, “We have to account for three-party [threats]... That is unprecedented in this nation's history. We have never faced two peer nuclear-capable opponents at the same time, who have to be deterred differently.”⁴

The United States carries special responsibilities to assure allies and deter adversaries through its extended nuclear deterrence commitments—its “nuclear umbrella.” More than 30 countries around the world, including 29 North Atlantic Treaty Organization (NATO) members, Australia, Japan, and South Korea are currently protected under this umbrella. U.S. extended deterrence and assurance guarantees have come under strain given negative regional trends, particularly the challenge of a resurgent, revanchist Russia, the rise of China as a hostile nuclear peer, and the emergence of a nuclear-armed North Korea. Each of these countries harbor revisionist geopolitical goals, often with global implications, making their armed build-ups particularly worrisome. Given these negative developments, U.S. extended deterrence and assurance requirements must be reevaluated to ensure their continued credibility and viability. Such a reevaluation is not without precedent, as experience shows.

U.S. DETERRENCE AND ASSURANCE: CONTINUOUS CHANGE

U.S. force posture requirements have been shaped by the necessity to extend deterrence and provide assurance to U.S. allies around the world. These requirements generate unique demands on U.S. nuclear and conventional forces, separate from the demands of deterring an attack on the U.S. homeland. They also influence U.S. declaratory policy. Extended deterrence and assurance requirements have not been static and have evolved in response to changes in U.S. and allied threat perceptions. Two prominent examples of such an

⁴ Tara Copp, “US Military ‘Furiously’ Rewriting Nuclear Deterrence to Address Russia and China, STRATCOM Chief Says,” *Defense One*, August 11, 2022, available at <https://www.defenseone.com/threats/2022/08/us-military-furiously-rewriting-nuclear-deterrence-address-russia-and-china-stratcom-chief-says/375725/>.

adjustment stand out: the evolution of the Limited Nuclear Options (LNOs in the “Schlesinger Doctrine”) in the 1970s and the Presidential Nuclear Initiatives (PNIs) in the 1990s. These cases illustrate the process of shifting deterrence and assurance requirements given the changes in the strategic environment.

Challenges to U.S. Credibility and LNOs

Starting in the 1970s, the key challenge for the United States became how to credibly extend deterrence and assure allies given an unfavorable asymmetry in geographical distance and conventional forces between NATO and the Warsaw Pact in the context of a continued Soviet nuclear build up, particularly in long-range missiles, that put the U.S. homeland at risk. While the Warsaw Pact not only maintained conventional superiority for the better part of the Cold War, it also retained short- and medium-range nuclear weapons to support a possible conventional attack against U.S. Western allies in Europe without having to resort to attacking the U.S. homeland.

Soviet parity at the strategic level potentially rendered a U.S. extended deterrence threat of large-scale nuclear escalation incredible given the Soviet threat of large-scale nuclear retaliation against the U.S. homeland. While, “the credibility of the U.S. policy to provide nuclear assurance to its allies was thought to rest upon a condition of escalation dominance,”⁵ President Nixon’s National Security Advisor Henry Kissinger observed at the time that “...we must face the fact that it is absurd to base the strategy of the West on the credibility of the threat of mutual suicide...because if we execute, we risk the destruction of civilization.”⁶

Concern about the credibility of the U.S. extended deterrent was not unprecedented. It earlier was a basis for French President Charles de Gaulle declaring it “incumbent upon France to acquire its own nuclear force” in the 1960s.⁷ The concern prompted British Defense Minister Denis Healey’s famous comment that it takes “only five per cent credibility of American retaliation to deter the Russians, but ninety-five per cent credibility to reassure the Europeans.”⁸ The unfavorable deterrence context generated by the Soviet strategic nuclear buildup led the Nixon Administration to change U.S. nuclear weapons policy in

⁵ Rod Lyon, “The Challenges Confronting US Extended Nuclear Assurance in Asia,” *International Affairs*, Vol. 89, No. 4 (2013), p. 935.

⁶ Henry Kissinger, “The Future of NATO,” in Kenneth Myers, ed., *NATO, the Next Thirty Years* (Boulder, CO: Westview Press, 1979), p. 8.

⁷ “Press Conference by President de Gaulle, Paris, 14th January 1963,” in *Political Union of Europe*, Western European Union Assembly, General Affairs Committee, 10th Ordinary Session (Paris, June 1964), p. 88, available at <http://aei.pitt.edu/5777/1/5777.pdf>.

⁸ Denis Healey, *The time of my life* (London: Michael Joseph, 1989), p. 243, quoted in David Yost, “Assurance and US Extended Deterrence in NATO,” *International Affairs* Vol. 85, No. 4 (2009), p. 768.

National Security Decision Memorandum (NSDM)-242 and the subsequent planning document *Nuclear Weapons Employment Policy-74 (NUWEP-74)*.⁹

Concerns over allied perceptions of U.S. credibility are apparent in both documents. NSDM-242 lists among the deterrence objectives “to deter attacks -- conventional and nuclear -- by nuclear powers against U.S. allies and those other nations whose security is deemed important to U.S. interests,” and to “inhibit coercion of the United States by nuclear powers and, in conjunction with other U.S. and allied forces, help inhibit coercion of U.S. allies by such powers.”¹⁰ The document called for the development of LNOs “to seek early war termination, on terms acceptable to the United States and its allies, at the lowest level of conflict feasible.”¹¹

LNOs were an alternative to the previous targeting policy that would effectively result in “dumping literally thousands of weapons on the Soviet Union” if ever implemented, as Secretary Schlesinger commented.¹² “Allied concern about the credibility of this particular threat has been evident for more than a decade. In any event, the actuality of such a response would be utter folly except where our own or allied cities were attacked...,” he further stated.¹³ LNOs were thought to help with deterrence credibility “by removing the temptation for an adversary to consider any kind of nuclear attack”¹⁴ through developing “a series of measured responses to aggression which bear some relation to the provocation, have prospects of terminating hostilities before general nuclear war breaks out, and leave some possibility for restoring deterrence.”¹⁵ They permitted the President to rely on threats other than massive retaliation or an option to do nothing following Soviet aggression for fear of risking a Soviet strategic response. It “was not considered highly plausible that the United States would respond to a Soviet attack on U.S. allies with a massive assured destruction response.”¹⁶ The assured destruction forces were to be held in reserve “as the ultimate threat inhibiting a Soviet ascension of the escalation ‘ladder’.”¹⁷

NUWEP-74 emphasized the importance of responsiveness to political and military objectives, including taking into account “the interest of friendly and allied states, those on

⁹ See National Security Decision Memorandum-242, Policy for Planning the Employment of Nuclear Weapons, January 17, 1974, available at https://fas.org/irp/offdocs/nsdm-nixon/nsdm_242.pdf and Policy Guidance for the Employment of Nuclear Weapons, April 3, 1974, available at <https://nsarchive2.gwu.edu/NSAEBB/NSAEBB173/SIOP-25.pdf>.

¹⁰ National Security Decision Memorandum-242, *Policy for Planning the Employment of Nuclear Weapons*, op. cit., pp. 1-2.

¹¹ Ibid, p. 2.

¹² Secretary James Schlesinger’s testimony in U.S. Senate, Committee on Foreign Relations, *U.S./U.S.S.R. Strategic Policies*, Hearings, 93rd Congress, 2nd Session (Washington, DC: USGPO, 1974), p. 9.

¹³ Secretary of Defense James R. Schlesinger, Annual Defense Department Report FY 1975, March 4, 1974, pp. 37-38.

¹⁴ Ibid, p. 4.

¹⁵ Ibid, p. 38.

¹⁶ Keith Payne, “The Schlesinger Shift: Return to Rationality,” in Keith Payne, C. Johnston Conover, and Bruce William Bennett, *Nuclear Strategy: Flexibility and Stability*, Student Paper No. 82 (Santa Monica, CA: California Seminar on Arms Control and Foreign Policy, March 1979), p. 11.

¹⁷ Ibid, p. 5.

whose territory any such operation may be undertaken” and “existing arrangements for coordination with allied forces and commands in appropriate geographical areas.”¹⁸

LNOs were also meant to signal to the Soviet Union and China that “issues attendant to local conflicts are part of the vital interests of the United States.”¹⁹ The document also established a category of “Regional Nuclear Options (RNOs).”²⁰ RNOs provided in-theater options against an enemy’s attacking forces.²¹ Their objective was “to create a state of affairs permitting the continuation or resumption of political arrangements to terminate the conflict,” and in part to provide a basis for intra-war deterrence.²²

As stated above, the key driver behind this change in extended deterrence and assurance requirements was the scale and pace of the Soviet strategic nuclear build-up, particularly its long-range nuclear missile force, which put the U.S. homeland at risk. Concurrently, the Soviet conventional superiority and short- and intermediate-range nuclear build up in Europe called the credibility of U.S. extended deterrence commitment into question because they made a large-scale threat of U.S. nuclear escalation potentially incredible. LNOs were deemed necessary to meet resultant U.S. extended deterrence and assurance requirements. Allied cooperation to meet this challenge was critical as “Neither the Americans on their own, nor the Europeans on their own would have been able to present a credible military deterrence and thus fight a credible war in Central Europe,” according to General Leopold Chalupa, former Commander-in-Chief, Headquarters Allied Forces Central Europe (HQ AFCENT).²³

The development of LNOs as an element of U.S. deterrence policy illustrates that the reassessment process is not guaranteed to result in a reduction in U.S. nuclear capabilities. In fact, reducing U.S. capabilities in the context of increasing threats could undermine U.S. extended deterrence and assurance goals where adding flexibility and diversity to U.S. nuclear capabilities can be stabilizing and advance those goals.²⁴

Presidential Nuclear Initiatives and the End of the Cold War

After the end of the Cold War, the United States and NATO allies generally considered the potential for Russian aggression against a NATO member state as unlikely. The change in the strategic environment led to a reassessment of U.S. deterrence and assurance requirements.

¹⁸ Policy Guidance for the Employment of Nuclear Weapons, April 3, 1974, op. cit., pp. 3-4.

¹⁹ Ibid, p. 6.

²⁰ Ibid, p. 4.

²¹ Ibid, p. 7.

²² Ibid.

²³ Jan Hoffenaar and Christopher Findlay, eds., *Military Planning for European Theater Conflict during the Cold War: An Oral History Roundtable Stockholm, 24-25 April 2006* (Center for Security Studies ETH Zurich: Germany, 2006), p. 59, available at <https://nsarchive2.gwu.edu/nukevault/ebb285/ZB-79.pdf>.

²⁴ For an elaboration of this point see Keith B. Payne, *Redefining 'Stability' for the New Post-Cold War Era, Occasional Paper*, Vol. 1, No. 1 (Fairfax, VA: National Institute Press, 2021), available at <https://nipp.org/wp-content/uploads/2021/04/Payne-OP-distro-1.1.pdf>.

As a result, the United States divested itself of most of its non-strategic nuclear weapons and withdrew most of its forward-deployed nuclear forces from Europe and Asia.

Most of these reductions were implemented following President George H. W. Bush's 1991 and 1992 Presidential Nuclear Initiatives (PNIs).²⁵ These were presidential statements announcing the withdrawal of all land-based nuclear weapons with less than a 300-mile range from overseas bases and all sea-based tactical nuclear weapons from U.S. surface ships, submarines, and naval aircraft.²⁶ These steps were announced unilaterally, although the United States hoped the Soviet Union would take reciprocal steps. President Mikhail Gorbachev and his successor Boris Yeltsin made similar political commitments; however, Russia did not abide by them. Then-Assistant Secretary of State for International Security and Nonproliferation Stephen Rademaker stated that "considerable concern exists" that Russia did not fully follow through on its commitments.²⁷ The State Department's *Annual Compliance Report* declares that "Russia is not adhering to all of its PNI commitments."²⁸

Over time, the United States also reduced the number of its forward-deployed gravity bombs in Europe. The number of bases in Europe that stored nuclear weapons was reduced from more than 125 in the mid-1980s to 10, reportedly in seven countries, by 2000.²⁹ Today, the United States reportedly maintains about a hundred B61 gravity bombs in Europe.³⁰ They are reportedly deployed to five European countries today, none of which joined NATO after the end of the Cold War.³¹ The gravity bombs are deliverable by U.S. and allied dual-capable aircraft (F-15Es, F-16s, Tornados and, in the future, F-35As). They remain a visible demonstration of the U.S. and allied commitment to transatlantic security, even as their readiness became measured in months rather than minutes.³²

As the Clinton Administration continued to implement the PNIs, it argued that "U.S. nuclear weapons for years were justified by the potential for a massive conventional attack

²⁵ Susan Koch, "The Presidential Nuclear Initiatives of 1991–1992," (National Defense University Press, Washington, DC: September 2012), available at https://ndupress.ndu.edu/portals/68/documents/casestudies/cswmd_casestudy-5.pdf

²⁶ Amy F. Woolf, "Nonstrategic Nuclear Weapons," *Congressional Research Service*, CRS Report RL32572, March 7, 2022, available at <https://sgp.fas.org/crs/nuke/RL32572.pdf>. Other announcements concerned strategic nuclear forces, including taking U.S. bombers off alert for the first time in over 20 years.

²⁷ U.S. Department of State, *Press Roundtable at Interfax with Stephen G. Rademaker, Assistant Secretary of State for Arms Control*, June 10, 2004, available at <https://2001-2009.state.gov/t/isn/rls/rm/37275.htm>.

²⁸ Department of State, *2021 Adherence to and Compliance With Arms Control, Nonproliferation, and Disarmament Agreements and Commitments*, April 15, 2021, p. 12, available at <https://www.state.gov/wp-content/uploads/2021/04/2021-Adherence-to-and-Compliance-With-Arms-Control-Nonproliferation-and-Disarmament-Agreements-and-Commitments.pdf>.

²⁹ Amy F. Woolf, "Nonstrategic Nuclear Weapons," *op. cit.* p. 23.

³⁰ Hans Kristensen and Matt Korda, "United States Nuclear Weapons, 2022," *Bulletin of the Atomic Scientists*, p. 56, May 10, 2022, available at <https://thebulletin.org/premium/2022-05/nuclear-notebook-how-many-nuclear-weapons-does-the-united-states-have-in-2022/>.

³¹ Hans M. Kristensen and Matt Korda, "United States Nuclear Weapons, 2021," *Bulletin of the Atomic Scientists*, January 26, 2021, available at <https://thebulletin.org/premium/2021-01/nuclear-notebook-united-states-nuclear-weapons-2021/>.

³² NATO, *NATO's Nuclear Forces in the New Security Environment*, January 24, 2008, p. 4, available at https://www.nato.int/nato_static/assets/pdf/pdf_topics/20091022_Nuclear_Forces_in_the_New_Security_Environment-eng.pdf.

by the Warsaw Pact through the Fulda Gap which would overwhelm NATO conventional forces.... No equivalent threat to American vital interests can be identified in the post-Cold War era, and for very few of the existing threats are nuclear weapons appropriate responses.”³³ Just like in the case of LNOs and the “Schlesinger Doctrine,” changes in the strategic threat environment led to changes in extended deterrence and assurance requirements. These changes permitted the largest nuclear weapons reductions to date without immediately undermining U.S. assurance objectives.

CHANGES IN THE STRATEGIC ENVIRONMENT SINCE THE END OF THE COLD WAR

Today, the United States and its allies find themselves amid significant changes in the strategic environment yet again. These changes are generating new extended deterrence and assurance requirements. As the examples of LNOs and the PNIs illustrated, the situation is not unprecedented. U.S. extended deterrence and assurance commitments go through seasons of adjustment and change as the strategic environment evolves. What has remained constant throughout has been the continuing allied desire for assurance and the continued U.S. interest in providing extended deterrence and assurance guarantees, goals that are unlikely to change in the future. In fact, since NATO’s membership grew since the end of the Cold War, the United States expanded its extended deterrence and assurance commitments even as it reduced the force posture that supported extended deterrence and assurance goals during the Cold War.³⁴ While the change could be justified by benign developments in the strategic environment in the 1990s, the United States and its allies now are faced with significant changes yet again. This time, however, the changes include intense hostility with two great powers determined to upend the world order established and sustained by the United States and its allies.

The 2018 *Nuclear Posture Review (NPR)* prominently discussed the goal of assuring allies and partners and the value of nuclear forces for extended deterrence.³⁵ It stated that “Assurance is a common goal and advances our common security interests”³⁶ and that it includes “sustained allied dialogues to understand each other’s threat perceptions and to arrive at a shared understanding of how best to demonstrate our collective capabilities and

³³ Department of Defense, *Annual Report to the President and the Congress, 1995*, February 1995, pp. 84-85, available at https://history.defense.gov/Portals/70/Documents/annual_reports/1995_DoD_AR.pdf?ver=2014-06-24-152712-813.

³⁴ The Czech Republic, Hungary and Poland joined in 1999, Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia and Slovenia in 2004, Albania and Croatia in 2009, Montenegro in 2017, and the Republic of North Macedonia in 2020. All NATO members except for France are participants in the Nuclear Planning Group.

³⁵ Department of Defense, *Nuclear Posture Review Report, 2018*, pp. 22-23, available at <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PD>.

³⁶ *Ibid*, p. 22.

resolve.”³⁷ The 2018 *NPR* also notes “an increased potential for regional conflicts involving nuclear-armed adversaries.”³⁸

Three significant developments with bearing on U.S. extended deterrence and assurance commitments will be discussed in the following section of this article: the rise of a revanchist and belligerent Russia, China’s rapid nuclear build up and revisionist global goals, and a nuclear-armed North Korea dissatisfied with the status quo on the Korean Peninsula. In addition to nuclear and missile programs, each of these countries maintains robust conventional forces and has been known to possess other weapons of mass destruction. Russia and China deploy sophisticated anti-access/area denial weapons.³⁹ Their potential coordination against U.S. interests is particularly concerning.⁴⁰ These threat trends in the contemporary security environment must shape allied defense postures and impact U.S. extended deterrence and assurance policies.

The Fall and Rise of Revisionist Russia

The United States began the 1990s convinced that Russian aggression against the United States and NATO members was highly unlikely and that nuclear weapons and deterrence were of greatly reduced relevance for U.S. and allied security. The prevalent view was that U.S. non-nuclear military and technological dominance could offset nuclear weapons reductions.⁴¹ Not so in Russia. Moscow has increased the role of nuclear weapons in its national security strategy and increased the number of its strategic nuclear weapons from levels that existed following the end of the Cold War. The then-Chairman of the National Intelligence Council stated in 2012:

Nuclear ambitions in the U.S. and Russia over the last 20 years have evolved in opposite directions. Reducing the role of nuclear weapons in U.S. security strategy is a U.S. objective, while Russia is pursuing new concepts and capabilities for expanding the role of nuclear weapons in its security strategy.⁴²

In 1993, Russia formally abandoned the Soviet pledge not to use nuclear weapons first. Subsequent iterations of Russian military doctrine – for example in 1997 and 2000 – placed growing emphasis on the use of nuclear weapons in certain circumstances to defend the

³⁷ *Ibid*, pp. 22-23.

³⁸ *Ibid*, pp. 7-8.

³⁹ Russia’s conventional forces are diminishing following its relative lack of success in Ukraine. For further information on this topic see Michael Kofman and Robert Lee, “Not Built for Purpose: The Russian Military’s Ill-Fated Force Design,” *War on the Rocks*, June 2, 2022, available at <https://warontherocks.com/2022/06/not-built-for-purpose-the-russian-militarys-ill-fated-force-design/>.

⁴⁰ For an elaboration on this point see Keith B. Payne and David J. Trachtenberg, *Deterrence in the Emerging Great Environment: What is Different and Why it Matters, Occasional Paper*, Vol. 2, No. 8 (Fairfax, VA: National Institute Press, 2022), available at <https://nipp.org/wp-content/uploads/2022/08/OP-Vol.-2-No.-8.pdf>.

⁴¹ The White House, *National Security Strategy of the United States*, December 2017, p. 27, available at <https://trumpwhitehouse.archives.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf>.

⁴² National Intelligence Council, *Global Trends 2030: Alternative Worlds*, December 2012, p. 69, available at https://www.dni.gov/files/documents/GlobalTrends_2030.pdf.

Russian Federation.⁴³ Russian military and civilian officials even spoke publicly of the “preemptive” use of nuclear weapons.⁴⁴ President Putin’s December 2020 decree stated that “The Russian Federation reserves the right to use nuclear weapons... in response to aggression against the Russian Federation with the use of conventional weapons when the very existence of the state is in jeopardy.”⁴⁵

Russia’s nuclear force build up is about advancing its own geopolitical goals at the expense of the United States and its allies, despite Russia and its supporters portraying it as a reaction to American missile defense efforts and nuclear policies.⁴⁶ Moscow’s recognized conventional force inferiority, perception of NATO encirclement, and other factors also shape Russia’s nuclear weapons policy. Russia uses nuclear threats to support its goal of changing the existing order, particularly in Europe, a fact that bears heavily to U.S. allies’ perceptions of their assurance needs. Russia placed its nuclear forces on special alert following its February 2022 invasion of Ukraine and concerns regarding its potential nuclear use appear to have increased as Russia’s war stalled due to Ukraine’s fierce resistance.⁴⁷ In invading Ukraine, Russia wants to advance its goal of overturning the U.S.-led “world order,” according to Russia’s Ambassador to the United States.⁴⁸

In a not-so-thinly-veiled threat—one of Russia’s many—former President Medvedev stated that the “idea of punishing a country that has one of the largest nuclear potentials is absurd. And potentially poses a threat to the existence of humanity.”⁴⁹ Recently, he threatened Ukraine with a nuclear attack, doubting that NATO allies would come to its

⁴³ Amy F. Woolf, “Russia’s Nuclear Weapons: Doctrine, Forces, and Modernization,” *Congressional Research Service*, CRS Report No. R45861, August 5, 2019, p. 4, available at <https://assets.documentcloud.org/documents/6268513/Russia-s-Nuclear-Weapons-Doctrine-Forces-and-modernization.pdf>.

⁴⁴ *Ibid.*, p. 4. Also see, for example, Nikolai Patrushev, head of the Russian Security Council, who stated: “In situations critical to national security, options including a preventative nuclear strike on the aggressor are not excluded.” David Nowak, “Report: Russia to Allow Pre-emptive Nukes,” *Associated Press*, October 14, 2009, available at <https://www.sandiegouniontribune.com/sdut-eu-russia-military-doctrine-101409-2009oct14-story.html>.

⁴⁵ The President of the Russian Federation, *Basic Principles of State Policy of the Russian Federation on Nuclear Deterrence*, Executive Order, June 2, 2020, available at https://archive.mid.ru/en/web/guest/foreign_policy/international_safety/disarmament/-/asset_publisher/rp0fiUBmANaH/content/id/4152094.

⁴⁶ Robert Ashley, “Russian and Chinese Nuclear Modernization Trends,” *Defense Intelligence Agency*, May 29, 2019, available at <https://www.dia.mil/News/Speeches-and-Testimonies/Article-View/Article/1859890/russian-and-chinese-nuclear-modernization-trends/>.

⁴⁷ “CIA Chief Says Threat Russia Could Use Nuclear Weapons Is Something U.S. Cannot ‘Take Lightly,’” *Radio Free Europe/Radio Liberty*, April 15, 2022, available at <https://www.rferl.org/a/russia-nuclear-weapons-burns-cia/31804539.html>; and Stephen Blank, “Russian Nuclear Strategy in the Ukraine War: An Interim Report,” *Information Series*, No. 525 (Fairfax, VA: National Institute Press, June 15, 2022), available at https://nipp.org/information_series/stephen-blank-russian-nuclear-strategy-in-the-ukraine-war-an-interim-report-no-525-june-15-2022/.

⁴⁸ Natalie Colarossi, “Putin Using Ukraine Invasion to Change ‘World Order’: Russian Ambassador,” *Newsweek*, April 18, 2022, available at <https://www.newsweek.com/putin-using-ukraine-invasionchange-world-order-russian-ambassador-1698657>.

⁴⁹ Guy Faulconbridge, “Russia’s Medvedev Warns United States: Messing With a Nuclear Power Is Folly,” *Reuters*, July 6, 2022, available at <https://www.usnews.com/news/world/articles/2022-07-06/russias-medvedev-warns-united-states-messing-with-a-nuclear-power-is-foolly>.

defense: “Imagine that Russia is forced to use the most formidable weapon against the Ukrainian regime, which has committed a large-scale act of aggression that is dangerous for the very existence of our state. I believe that NATO will not directly intervene in the conflict even in this situation. After all, the security of Washington, London, and Brussels is much more important for the North Atlantic Alliance than the fate of the perishing Ukraine.”⁵⁰ Russian officials have repeatedly threatened NATO allies and non-NATO states with nuclear attack, including Ukraine, Norway, Denmark, and the Baltic states.⁵¹ Russia appears to see its nuclear threats as useful for its revanchist purposes, including in hybrid warfare by backing its “little green men,” for example in its 2014 conflict with Ukraine.⁵² The Cold War stability paradigm does not account for an adversary willing to threaten and perhaps employ nuclear weapons in pursuit of territorial expansion.

President Putin is intent on reversing what he has called “the greatest geopolitical catastrophe of the century,” namely the breakup of the Soviet Union with millions of ethnic Russians living outside Russian borders.⁵³ To help advance that goal, Russia is building a diverse nuclear arsenal, including strategic nuclear weapons that are unconstrained by any formal arms control framework. Russia’s military doctrine has evolved to place increased emphasis on the threat of nuclear first use for coercive purposes, often referred to as “escalate to de-escalate,”⁵⁴ and on the potential for nuclear employment to achieve a favorable outcome in conflict (including regional). This is a very different dynamic from the one presumed by the Cold War stability paradigm, which assumed that U.S. and Soviet leaders would be too rational to initiate a nuclear war for limited purposes.

⁵⁰ “Russia’s New Nuke Warning,” *Politico*, September 27, 2022, available at <https://www.politico.com/newsletters/national-security-daily/2022/09/27/too-early-to-tell-if-iran-protests-will-sink-regime-00059045>.

⁵¹ See, for example, Bruno Waterfield, “Russia Threatens Nuclear Attack on Ukraine,” *The Telegraph*, February 12, 2008, available at <https://www.telegraph.co.uk/news/worldnews/1578444/Russia-threatens-nuclear-attack-on-Ukraine.html>; Matt Payton, “Norway is Now a Nuclear Target Over US Marines Posted There, Senior Russian Politician Warns,” *The Independent*, November 1, 2016, available at <https://www.independent.co.uk/news/world/europe/norway-nuclear-target-us-marines-russia-politician-weapons-a7390386.html>; Adam Withnall, “Russia Threatens Denmark with Nuclear Weapons if it Tries to Join NATO Defence Shield,” *The Independent*, March 22, 2015, available at <https://www.independent.co.uk/news/world/europe/russia-threatens-denmark-with-nuclear-weapons-if-it-tries-to-join-nato-defence-shield-10125529.html>; and Christopher Woody, “Russia Reportedly Warned Mattis It Could Use Nuclear Weapons in Europe, and It Made Him See Moscow as an ‘Existential Threat’ to the US,” *Business Insider*, September 24, 2018, available at <https://www.businessinsider.com/russia-warned-mattis-it-could-use-tactical-nuclear-weapons-baltic-war-2018-9>.

⁵² Jacek Durkalec, “Nuclear Backed ‘Little Green Men’: Nuclear Messaging in the Ukraine Crisis” (Warsaw, Poland: The Polish Institute of International Affairs, July 2015), available at <https://www.files.ethz.ch/isn/193514/Nuclear%20Backed%20E2%80%9CLittle%20Green%20Men%20E2%80%9D%20Nuclear%20Messaging%20in%20the%20Ukraine%20Crisis.pdf>.

⁵³ Denis Sinyakov, “Putin: Soviet Collapse a ‘Genuine Tragedy,’” *msnbc.com*, April 25, 2005, available at http://www.nbcnews.com/id/7632057/ns/world_news/t/putin-soviet-collapse-genuine-tragedy/.

⁵⁴ Mark B. Schneider, “Escalate to De-escalate,” *Proceedings*, Vol. 142, No. 2, February 2017, available at <https://www.usni.org/magazines/proceedings/2017/february/escalate-de-escalate>.

In 2018, Russian President Vladimir Putin announced with great fanfare that Moscow is developing at least half-a-dozen new sophisticated nuclear weapons delivery systems.⁵⁵ Russian nuclear weapons programs have advanced rapidly under an intense modernization effort that has included the building and deployment of newer, more sophisticated nuclear weapons, both “strategic” and “tactical”; the development and fielding of more modern delivery systems; and the development of next-generation missile and weapons capabilities.⁵⁶ Russian nuclear strategy, doctrine, and programs have evolved significantly since the Cold War, in ways that pose even greater risks to the West than during the Soviet era.

Additionally, Russia not only maintains much more robust nuclear weapons and design production capabilities, it has tested its nuclear weapons by conducting nuclear weapons-related experiments that have created nuclear yield in violation of the U.S. understanding of the Comprehensive Test Ban Treaty.⁵⁷ These experiments could improve Russia’s nuclear weapons capabilities.⁵⁸ New types of nuclear propulsion, miniaturization, and maneuvering technologies could place an added strain on U.S. extended deterrence and assurance guarantees.

The Rise of Nuclear China

The United States spent decades trying to understand and contain the expansionist goals behind Moscow’s nuclear posture. Similar concerns have developed in recent years over the People’s Republic of China’s (PRC) efforts to reshape the global world order--particularly deterring China’s forceful takeover of Taiwan. Incorporation of Taiwan into the mainland appears to be an existential and possibly near-term requirement for the Chinese Communist Party.⁵⁹

China’s ambitions are more expansive than the incorporation of Taiwan. China wants to overcome a “century of humiliation” by Western powers and Japan.⁶⁰ Chairman of the Joint Chiefs of Staff, General Mark Milley stated that a goal of China’s military buildup is “to revise

⁵⁵ Vladimir Putin, *Presidential Address to the Federal Assembly*, March 1, 2018, available at <http://en.kremlin.ru/events/president/news/56957>.

⁵⁶ Mark Schneider, “The Expanding List of Putin’s New Nuclear Superweapons,” *RealClear Defense*, May 27, 2021, available at https://www.realcleardefense.com/articles/2021/05/27/the_expanding_list_of_putins_new_nuclear_superweapons_778989.html.

⁵⁷ Department of State, *2021 Adherence to and Compliance With Arms Control, Nonproliferation, and Disarmament Agreements and Commitments*, op. cit., p. 41.

⁵⁸ Robert Ashley, “Russian and Chinese Nuclear Modernization Trends,” Remarks at the Hudson Institute, May 29, 2019, available at <https://www.dia.mil/News/Speeches-and-Testimonies/Article-View/Article/1859890/russian-and-chinese-nuclear-modernization-trends/>.

⁵⁹ “Tailored Deterrence: China and the Taiwan Question,” *Journal of Policy & Strategy*, Vol. 2, No. 2., 2022, pp. 7 and 15, available at <https://nipp.org/wp-content/uploads/2022/05/Special-Issue-final.pdf>.

⁶⁰ Christopher A. Ford, *Defending Taiwan: Defense and Deterrence, Occasional Paper*, Vol. 2, No. 2 (Fairfax, VA: National Institute Press, 2022), available at <https://nipp.org/wp-content/uploads/2022/02/Vol.-2- No.-2-Ford.pdf>.

the global rule set.”⁶¹ At the time, a senior U.S. government official assessed the situation similarly: “Beijing’s long-term goal is to fundamentally revise world order, placing the People’s Republic of China (PRC)... at the center and serving Beijing’s authoritarian goals and imperial ambitions.”⁶²

The PRC has spent the past decade developing conventional and nuclear capabilities to match its expansionist ambitions. According to the U.S. government, “China continues to have one of the most active and diverse ballistic missile development programs in the world.”⁶³

China’s military buildup aims to shift the regional balance vis-à-vis the United States in its favor, particularly in the context of its desire to bring Taiwan under the political control of the mainland—by force if necessary.⁶⁴ The PRC may now believe it holds local escalation dominance.

Admiral Charles Richard, Commander of the U.S. Strategic Command, called China’s nuclear expansion “breathhtaking”⁶⁵ and noted that the PRC’s capabilities will permit it to employ “any coercive nuclear strategy.”⁶⁶ The Department of Defense stated that China’s capabilities reached a “strategic breakout point.”⁶⁷ General John Hyten, then-Vice Chairman of the Joint Chiefs of Staff, mentioned his concern that China is “going away from minimum deterrence” given its work in “hypersonics, the work to fill out the triad, the work to build both a fixed base silo based ICBM program and a mobile ICBM program at the same time, to put ballistic missiles on bombers, to put ballistic missiles on submarines.”⁶⁸ China is taking these steps amid the questionable U.S. ability to forward deploy nuclear forces to the Indo-Pacific region.⁶⁹

⁶¹ Nancy A. Youssef, “China Aims to ‘Revise the Global Rule Set,’ Top U.S. General Says: Gen. Milley, Speaking at the WSJ CEO Council Summit, Warned that China’s Aims Could Lead to More Instability,” *Wall Street Journal Online*, December 7, 2021, available at <https://www.wsj.com/articles/china-aims-to-revise-the-global-rule-set-top-u-s-general-says-11638914747>.

⁶² Peter Berkowitz, “The Pattern and Purpose of China’s Actions,” *RealClearPolitics*, October 25, 2020, available at https://www.realclearpolitics.com/articles/2020/10/25/the_pattern_and_purpose_of_chinas_actions_144522.html.

⁶³ Department of Defense, *Missile Defense Review*, 2019, p. 13, available at <https://media.defense.gov/2019/Jan/17/2002080666/-1/-1/1/2019-MISSILE-DEFENSE-REVIEW.PDF>.

⁶⁴ Keith B. Payne, *Tailored Deterrence: China and the Taiwan Question, Occasional Paper*, Vol. 2, No. 1 (Fairfax, VA: National Institute Press, 2022), available at <https://nipp.org/wp-content/uploads/2022/01/Payne-OP-Vol-2-No-1-final.pdf>.

⁶⁵ Roxana Tiron, “U.S. Sees Rising Risk in ‘Breathhtaking’ China Nuclear Expansion,” *Bloomberg*, April 4, 2022, available at <https://www.bloomberg.com/news/articles/2022-04-04/u-s-sees-rising-risk-in-breathhtaking-china-nuclear-expansion>.

⁶⁶ Jason Sherman, “DOD Assesses China Has Achieved ‘Strategic Breakout’ Requiring U.S. Policy, Capability Response,” *InsideDefense.com*, March 1, 2022, available at <https://insidedefense.com/daily-news/dod-assesses-china-has-achieved-strategic-breakout-requiring-us-policy-capability>.

⁶⁷ Ibid.

⁶⁸ General John Hyten, *Defense Writers Group Project for Media and National Security*, October 21, 2021, p. 4, available at <https://cpb-us-e1.wpmucdn.com/blogs.gwu.edu/dist/2/672/files/2018/02/DWG-Hyten-211028.pdf>.

⁶⁹ Mark Schneider, “Does the United States Have Any Real Capability to Forward Deploy Nuclear Weapons Rapidly Outside of NATO?,” *RealClearDefense*, 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.

The PRC has invested significant resources into modernization and expansion of its forces, both conventional and nuclear. The People's Liberation Army (PLA) has 355 ships with further expansion of the fleet planned in the outyears and the third largest aviation force in the world (and the largest in the region).⁷⁰ China's activities include "developing and testing offensive missiles, forming additional missile units, upgrading missile systems, and developing methods to counter ballistic missile defenses."⁷¹

China's hypersonic weapons program is reportedly ahead of the United States.⁷² The Chinese have conducted "hundreds" of hypersonic weapons tests relative to nine for the United States during the same timeframe.⁷³ General Hyten called the pace at which China is moving "stunning," placing the United States at risk of being surpassed.⁷⁴ China's purpose appears to be to "erode our military advantages and deter us from intervening in a regional conflict..."⁷⁵ These ambitions emphasize the importance of U.S. allies in the region; one of the few local U.S. advantages over China. But they also mean that U.S. allies' assurance requirements may need updating as China's capabilities evolve.

Nuclear-Armed North Korea

North Korea is a rogue state that "seeks the capability to kill millions of Americans."⁷⁶ It is pursuing a spectrum of weapons, including weapons of mass destruction, to preserve the regime, gain leverage and increase its coercive potential over South Korea, Japan, and the United States.⁷⁷ The country is still formally at war with its southern neighbor and its leader Kim Jong-Un may harbor dreams of unification of the Korean Peninsula under the rule of the Democratic People's Republic of Korea (DPRK).⁷⁸ Evans J.R. Revere, former U.S. acting ambassador to Korea, recently argued that North Korea needs nuclear weapons to "unify the

⁷⁰ U.S. Department of Defense, *Military and Security Developments Involving the People's Republic of China 2021: Annual Report to Congress*, 2021, pp. v, vi, and 49, available at <https://media.defense.gov/2021/Nov/03/2002885874/-1/-1/0/2021-CMPR-FINAL.PDF>.

⁷¹ Ibid.

⁷² Paul McLeary and Alexander Ward, "U.S. 'not as advanced' as China and Russia on hypersonic tech, Space Force general warns," *Politico*, November 20, 2021, available at <https://www.politico.com/news/2021/11/20/hypersonic-technology-us-behind-china-russia-523130>.

⁷³ General John Hyten, *Defense Writers Group Project for Media and National Security*, op. cit., p. 6.

⁷⁴ Ibid, p. 22.

⁷⁵ U.S. Senate, Armed Services Committee, Subcommittee on Strategic Forces, Statement of General Glen VanHerck, Commander, United States Northern Command and North American Aerospace Defense Command, June 9, 2021, pp. 4-5, available at <https://www.armed-services.senate.gov/imo/media/doc/VanHerck%20Written%20Statement%20to%20SASC%206-09.pdf>.

⁷⁶ The White House, *National Security Strategy of the United States*, op. cit., p. 7.

⁷⁷ Department of Defense, *Summary of the 2018 National Defense Strategy of The United States of America: Sharpening the American Military's Competitive Edge*, 2018, p. 2, available at <https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>.

⁷⁸ Sofia Lotto Persio, "What Does Kim Jong Un Really Want? Reunification Under Communist System, Top U.S. Commander Says," *Newsweek*, February 15, 2018, available at <https://www.newsweek.com/what-does-kim-jong-un-really-want-reunification-under-communist-system-top-us-807969>.

Korean Peninsula, not to maintain his [Kim Jong-Un's] regime.”⁷⁹ In other words, Pyongyang is bent on altering the regional status quo.

Despite being one of the poorest economies in the world, the North Korean dictatorship managed to detonate a nuclear weapon in 2006, despite denying the existence of the program in the years prior to its withdrawal from the Nuclear Nonproliferation Treaty and has steadily improved its nuclear and ballistic missile force. According to one expert, North Korea is now “working to operationalize a nuclear warfighting capability to undermine the U.S. extended deterrence guaranty and potentially seek unification.”⁸⁰ Pyongyang developed its nuclear weapons program in violation of its international obligations, including under the Nuclear Nonproliferation Treaty when it was a party to the treaty. Due to its ballistic missile and nuclear weapons programs, it is one of the most heavily sanctioned states in the world with China being its main trading partner.

Nuclear weapons play a prominent role in the North Korean leadership's understanding of security. North Korean government-run media referred to nuclear weapons as a “shield.”⁸¹ Kim Jong-Un referred to nuclear weapons as a “powerful treasured sword for defending peace” that would “reliably guarantee” North Korea's dignity and happiness.⁸² In 2017, North Korean Foreign Minister Ri Yong Ho threatened to conduct “the strongest hydrogen bomb test over the Pacific Ocean” in response to President Donald Trump's speech at the United Nations condemning North Korea's activities.⁸³

Since 2006, the DPRK conducted nuclear weapons tests in 2009, 2013, 2016 (twice) and 2017.⁸⁴ The 2017 test reportedly was a hydrogen weapon for use on a long-range missile.⁸⁵ Today, Pyongyang could have more than 60 nuclear warheads.⁸⁶ North Korea's war plan

⁷⁹ Quoted in Kim Min-seok, “Would United States risk New York to protect Seoul?,” *Korea JoongAng Daily*, June 26, 2022, available at <https://koreajoongangdaily.joins.com/2022/06/26/opinion/columns/extended-nuclear-deterrence-South-Korea-US/20220626200111690.html>.

⁸⁰ Bruce Klingner, “North Korea's Nuclear Doctrine: Trusted Shield and Treasured Sword,” *The Heritage Foundation Backgrounder* No. 3665, October 18, 2021, available at <https://www.heritage.org/asia/report/north-koreas-nuclear-doctrine-trusted-shield-and-treasured-sword>.

⁸¹ “N. Korea says no plans to give up nuclear capabilities,” *Yonhap News Agency*, May 28, 2013, available at <https://en.yna.co.kr/view/AEN20130528008400315>.

⁸² Josh Smith, “‘Treasured Sword’: North Korea Seen as Reliant as Ever on Nuclear Arsenal as Talks Stall,” *Reuters*, November 13, 2018, available at <https://www.reuters.com/article/us-northkorea-missiles-nuclear-analysis/treasured-sword-north-korea-seen-as-reliant-as-ever-on-nuclear-arsenal-as-talks-stall-idUSKCN1N1132>.

⁸³ Joshua Berlinger and Zahra Ullah, “North Korea could test hydrogen bomb over Pacific Ocean, says foreign minister,” *CNN Politics*, September 22, 2017, available at <https://www.cnn.com/2017/09/21/politics/kim-jong-un-on-trump-comments/index.html>.

⁸⁴ “North Korea: What we know about its missile and nuclear programme,” *BBC News*, March 24, 2022, available at <https://www.bbc.com/news/world-asia-41174689>.

⁸⁵ Elise Hu, “North Korea Claims Successful Hydrogen Bomb Test,” *npr.org*, September 3, 2017, available at <https://www.npr.org/sections/thetwo-way/2017/09/03/523913820/north-korea-possibly-conducts-sixth-nuclear-test-south-korea-says>.

⁸⁶ “North Korea's Military Capabilities,” *Council on Foreign Relations*, December 21, 2022, available at <https://www.cfr.org/backgrounder/north-korea-nuclear-weapons-missile-tests-military-capabilities>.

reportedly calls for nuclear weapons use against South Korean and U.S. forces.⁸⁷ North Korean officials are open about potential preemptive nuclear weapons use, including in contingencies involving the United States.⁸⁸ The U.S. Defense Intelligence Agency reportedly assessed in 2017 that North Korea was able to miniaturize nuclear warheads for its ballistic missiles giving it an ability to strike the U.S. homeland.⁸⁹ In 2021, Kim Jong-Un stated that the country was able to “miniaturize, lighten and standardize nuclear weapons and to make them tactical ones.”⁹⁰

Nuclear warheads by themselves would cause relatively fewer (even if serious) concerns were it not for North Korea’s active and highly diverse missile program. In the past decade, North Korea has advanced its ballistic missile capabilities, to include developing ICBMs. As a result, “North Korea now has the capability to threaten the U.S. homeland with a nuclear-armed missile attack.”⁹¹ The purpose of these capabilities may be dissuading “the United States from supporting its Asian allies in a crisis or conflict.”⁹²

The reliability of North Korea’s long-range missile systems remains uncertain.⁹³ But North Korea has significantly improved its short- and medium-range ballistic missiles that threaten U.S. allies South Korea and Japan, and U.S. forward-deployed troops. Some of these systems are reportedly dual-capable.⁹⁴ North Korea also reportedly tested a hypersonic missile in 2021 and 2022.⁹⁵ North Korea’s threats and capabilities that are increasingly

⁸⁷ Jeong Yong-soo and Ser Myo-ja, “Kim Jong-un Ordered a Plan for a 7-Day Asymmetric War: Officials,” *Korea JoongAng Daily*, January 7, 2015, available at <http://koreajoongangdaily.joins.com/news/article/Article.aspx?aid=2999392>.

⁸⁸ For a recent example see “U.N. chief Guterres ‘deeply concerned’ by new North Korea law on nuclear weapons - spokesman,” *Reuters*, September 9, 2022, available at <https://www.reuters.com/world/asia-pacific/un-chief-guterres-deeply-concerned-by-new-north-korea-law-nuclear-weapons-2022-09-09/>; and “North Korea’s Kim Jong Un threatens to use nuclear weapons preemptively ‘if necessary,’” *CBS News*, April 30, 2022, available at <https://www.cbsnews.com/news/north-korea-nuclear-weapons-kim-jong-un-preemptively/>.

⁸⁹ Joby Warrick, Ellen Nakashima, and Anna Fifield, “North Korea Now Making Missile-Ready Nuclear Weapons, U.S. Analysts Say,” *The Washington Post*, August 8, 2017, available at https://www.washingtonpost.com/world/national-security/north-korea-now-making-missile-ready-nuclear-weapons-us-analysts-say/2017/08/08/e14b882a-7b6b-11e7-9d08-b79f191668ed_story.html.

⁹⁰ Mary Beth Nikitin, “North Korea’s Nuclear Weapons and Missile Programs,” *Congressional Research Service In Focus*, No. 10472, April 8, 2022, available at <https://crsreports.congress.gov/product/pdf/IF/IF10472>.

⁹¹ Department of Defense, *Missile Defense Review*, op. cit., p. 10.

⁹² *Ibid.*

⁹³ Mary Beth Nikitin, “North Korea’s Nuclear Weapons and Missile Programs,” op. cit., p. 2.

⁹⁴ For a more detailed overview see Hans Kristensen and Matt Korda, “Nuclear Notebook: How many nuclear weapons does North Korea have in 2021?,” *The Bulletin of Atomic Scientists*, July 21, 2021, available at <https://thebulletin.org/premium/2021-07/nuclear-notebook-how-many-nuclear-weapons-does-north-korea-have-in-2021/>.

⁹⁵ Kim Tong-hyung and Hyung-jin Kim, “See the weapons on display during North Korea’s latest parade,” *Defense News*, April 26, 2022, available at <https://www.defensenews.com/global/asia-pacific/2022/04/26/see-the-weapons-on-display-during-north-koreas-latest-parade/>; Jacob Cohn, Adam Lemon, Evan Montgomery, “Assessing the Arsenal: Past, Present, and Future Capabilities,” *Center for Strategic and Budgetary Assessment*, May 15, 2019, pp. 52-53, available at https://csbaonline.org/research/publications/Assessing_the_Arsenal_Past_Present_and_Future_Capabilities/publication/1; and Bruce Klingner, “North Korea’s Hypersonic Missile Less Developed Than China’s,” *The Heritage Foundation Factsheet* No. 227, January 27, 2022, available at <https://www.heritage.org/sites/default/files/2022-01/FS227.pdf>.

matchings the threats may require additional assurance to U.S. allies in the region as the security situation evolves.

Conclusion

Regional threat developments with potential global implications place the credibility of U.S. extended deterrence and assurance commitments at risk, particularly given the fact that the United States adapted its force posture to reflect an anticipated, long-term, benign strategic environment. The United States never planned for the prospect of having to deter two highly motivated and revisionist nuclear peers. During the Cold War, U.S. officials assumed that if it successfully deterred the Soviet Union, other lesser nuclear-armed actors would be deterred by extension. The situation today is vastly different and nuclear multipolarity will generate new extended deterrence and assurance requirements. The prospect of coordination between the PRC and Russia is particularly concerning in this regard and deserves closer examination.⁹⁶

IMPLICATIONS OF MULTIPOLARITY FOR EXTENDED DETERRENCE AND ALLIED ASSURANCE

Today, the United States faces a fundamental challenge to the credibility of its extended deterrence and assurance guarantees, particularly in a regional context where U.S. interests may be perceived by allies and adversaries as manifestly less important than those of its geographically closer adversaries, including, for example, Ukraine and Taiwan.

The strategic environment in which the United States and its allies address this challenge is unprecedented; the United States has never faced two nuclear peer competitors simultaneously. To make matters worse, both the PRC and the Russian Federation “appear driven by the common belief that their respective expansionist goals are of such existential importance that they are willing to brandish nuclear first-use threats to advance them, and may see limited nuclear employment as a way to work around U.S. deterrence policies.”⁹⁷ To that end, it would not be surprising if they coordinated their policies against the United States. There is some evidence such coordination is already taking place, although the discussion about its extent and longevity are ongoing.⁹⁸ Complicating matters further, new

⁹⁶ Keith B. Payne and David J. Trachtenberg, *Deterrence in the Emerging Great Environment: What is Different and Why it Matters, Occasional Paper*, Vol. 2, No. 8 (Fairfax, VA: National Institute Press, 2022), available at <https://nipp.org/wp-content/uploads/2022/08/OP-Vol.-2-No.-8.pdf>.

⁹⁷ Keith Payne, “Multilateral Deterrence: What’s New and Why it Matters,” *Information Series*, No. 522 (Fairfax, VA: National Institute Press, May 16, 2022), p. 5, available at <https://nipp.org/wp-content/uploads/2022/05/IS-522.pdf>.

⁹⁸ See, for example, the comments of various analysts in “Ask the Experts: Will China and Russia Stay Aligned?,” *Foreign Affairs*, June 21, 2022, available at <https://www.foreignaffairs.com/ask-theexperts/2022-06-21/will-china-and-russia-stay-aligned>; or John Bolton, “Entente Multiplies the Threat From Russia and China,” *The Wall Street Journal*, February 15, 2022, available at <https://www.wsj.com/articles/entente-multiplies-the-threat-from-russia-andchina-foreign-policy-alliance-beijing-moscow-xi-putin-11644943618>.

nuclear-armed states emerged after the end of the Cold War, increasing the complexity of the environment in which the United States must assure allies and extend deterrence.

The new realities of the post-Cold War environment make the popular understanding of the term “strategic stability”—a situation in which both sides share an understanding of what constitutes rational behavior and threaten the other side with nuclear annihilation in retaliation for first nuclear use—problematic at best and supremely dangerous at worst, especially at a regional level.⁹⁹ Far from sharing an equivalent fear of nuclear use and a commitment to perpetuating conditions of mutual vulnerability, today’s opponents appear intent on promoting instability, including threatening *first* nuclear weapons use, at U.S. and allied expense.¹⁰⁰ The adversaries’ objective is to challenge the global status quo and disrupt U.S. regional alliances, thus making it easier for them to attain their goals. These realities shape U.S. allies’ assurance requirements and extended deterrence.

Nevertheless, this is not the first time in modern history that the United States has had to take into account more than one nuclear-armed non-allied country when considering its foreign relations. During the Cold War, as the PRC developed its nuclear arsenal, India detonated a nuclear device (in 1974). The United States learned during this time that more nuclear-armed actors make deterrence and assurance dynamic more complex. Other nuclear powers retained much smaller nuclear arsenals than the United States and the Soviet Union. The U.S. government had the luxury of assuming that if it could deter the Soviet Union, it would be able to deter any other adversary.¹⁰¹

Additional actors complicate deterrence because the more actors are involved in a crisis, the more factors the United States must consider that could contribute to deterrence success or failure. The United States understands these factors only imperfectly under the best of circumstances, partly because some of them are unknowable.¹⁰² Deterrence failures often appear to be a consequence of misunderstandings regarding “the opponent’s goals, motivations, attention, determination, risk tolerance, perceptions of necessity, opportunity, and the stakes in contention, along with many other possible factors that shape how leaderships calculate risk, cost and gain.”¹⁰³ The obvious problem is that the United States and its allies may not know whether deterrence is on the verge of failing until it is too late. As a noted deterrence expert observes, “our understanding of opponents and context will likely never be adequate for highly-confident predictions in almost any context.”¹⁰⁴

Yet that does not mean that the United States should give up on the task of deterrence—it is an essential tool of U.S. and allied security. Nor should U.S. officials consider all

⁹⁹ Keith Payne, “Redefining ‘Stability’ for the New Post-Cold War Era,” op. cit., p. 45.

¹⁰⁰ Ibid, p. 48.

¹⁰¹ James Anderson, “China’s Arms Buildup Threatens the Nuclear Balance,” *The New York Times*, July 29, 2020, available at <https://nyti.ms/3f6A4NH>

¹⁰² For an elaboration of this point see Keith Payne, “Multilateral Deterrence: What’s New and Why it Matters,” op. cit., and Keith B. Payne and David J. Trachtenberg, *Deterrence in the Emerging Great Environment: What is Different and Why it Matters, Occasional Paper*, Vol. 2, No. 8 (Fairfax, VA: National Institute Press, 2022), available at <https://nipp.org/wp-content/uploads/2022/08/OP-Vol.-2-No.-8.pdf>.

¹⁰³ Ibid, p. 3.

¹⁰⁴ Ibid.

speculations on the subject equally valid and useful; quite the contrary. The United States can improve the chances that deterrence will work by pursuing multi-disciplinary contextual understanding of actors it is trying to deter, their decision-making structures, values they abide by, and goals they are trying to achieve.¹⁰⁵

In this context, it is prudent for the United States and its allies to hedge against too narrow of a definition of deterrence force adequacy and also against the potential for deterrence failure. After all, it is an adversary that will ultimately decide whether to be deterred. The imperative for the United States to understand as much as possible about its adversaries for deterrence purpose seems obvious—if long in becoming a recognized requirement for U.S. deterrence policy. The imperative for understanding what its allies think about adversaries and their particular needs for assurance less so. There is value added in gathering the views of allies about a common adversary and having that information be considered in the opponent's "strategic profile." It helps the United States check its assumptions, provides new data for the development of an adversary's strategic profile, and strengthens the relationship with allies as each side develops a common understanding of the adversary.

The complexity of the contemporary threat environment is reflected in the context of the United States extending deterrence and providing assurance to more allies than ever before with fewer nuclear capabilities and smaller conventional forces than the United States had during the Cold War.¹⁰⁶ Assurances may fail suddenly because they are political in nature. A sudden failure could catch the United States by surprise. If U.S. allies no longer attach credibility to the U.S. commitment to their security, they may seek their own independent nuclear forces and/or strike a separate geopolitical bargain with U.S. adversaries to the detriment of U.S. security and stability of the global system (because U.S. adversaries are not status quo powers and want to change it). If U.S. allies seek and obtain separate guarantees from other nuclear-armed states instead of the United States, other countries in the same region may appeal to U.S. adversaries for the same guarantees or may demand a stronger commitment from the U.S., thus introducing additional complexity.¹⁰⁷ Would the United States know allies are questioning its commitment to their security before it is too late to prevent such negative consequences of an assurance failure?

Allied confidence in U.S. assurances could languish over time if allies increasingly question the U.S. commitment to their security and perceive the United States as unresponsive to their concerns. The lack of a sufficient strategic dialogue could exacerbate this situation. Depending on the level of allied concern, allies could position themselves on a path to develop their own nuclear capabilities despite U.S. (and likely other countries') pressure not to do so. This could trigger nuclear proliferation that could destabilize regional

¹⁰⁵ For more on this topic, see Keith Payne, "Deterrence is Not Rocket Science: It is More Difficult," *Information Series*, No. 527 (Fairfax, VA: National Institute Press, July 6, 2022), available at <https://nipp.org/wp-content/uploads/2022/07/IS-527.pdf>.

¹⁰⁶ While United States does not provide an official number of states that are protected under the U.S. nuclear umbrella. The 2018 Nuclear Posture Review states that "the United States extends deterrence to over 30 countries." U.S. Department of Defense, *Nuclear Posture Review Report*, op. cit., p. 35.

¹⁰⁷ This eventuality is mentioned in Jacob Cohn, Adam Lemon, Evan Montgomery, "Assessing the Arsenal: Past, Present, and Future Capabilities," op. cit., pp. 53-55.

dynamics with negative consequences for U.S. and allied interests alike. Or allies could strike separate bargains with U.S. adversaries, enabling the latter to pursue more aggressive policies.¹⁰⁸ Neither of these paths positions the United States in a strategically better situation to uphold world order. That is why allied assurances are an essential component of U.S. national security.

Past U.S. Experience with Trilateral Nuclear Relationships

Previous U.S. experience demonstrates that nuclear multipolarity makes U.S. communication challenges more complex and therefore more difficult.¹⁰⁹ Part of the difficulty is that the United States must tailor messages in a way that the intended recipient does not misconstrue them. The U.S. track record in this regard is imperfect. Indeed, it is not at all clear that the United States *can* communicate clearly with an actor whose interests are built on misinterpreting U.S. messages.¹¹⁰

Another difficulty of communicating in multipolarity is that the United States communicates to several distinct audiences at once. U.S. actions aimed at assuring allies in one region will be closely watched and analyzed (and potentially misconstrued) by allies—and adversaries—in other regions.¹¹¹ Each state will interpret U.S. actions through its own lenses and biases stemming from different strategic cultures and leaderships' personal idiosyncrasies. There simply may not be a way to tailor a message in a way that leaves everyone with a clear picture as to what it is that the United States intends to communicate.

For its part, the United States might wish to preserve a degree of ambiguity in its messaging to support its deterrence goals or to avoid entrapment.¹¹² Opportunities for misunderstanding abound. The answer is not to give up on *trying* to tailor messages to intended audiences and making them as clear as possible but to do the groundwork necessary to understand and anticipate allies' and adversaries' perspectives and reactions ahead of time as much as possible.

¹⁰⁸ One can look to a contemporary example to Hungary's support for Russia to see the negative impact such a situation creates for the European Union's effort to sanction Russia following its brutal war in Ukraine.

¹⁰⁹ See for example Gerald Segal, *The Great Power Triangle* (London, UK: Palgrave Macmillan, 1981).

¹¹⁰ For example Kevin Woods et al., *Saddam's War: An Iraqi Military's Perspective of the Iran-Iraq War* (Washington, DC: National Defense University, 2009), pp. 17-18, available at <https://ndupress.ndu.edu/Portals/68/Documents/Books/saddams-war.pdf>. The publication documents Saddam Hussein's increasing isolation and paranoia after his son-in-law's defection to Jordan, and unwillingness to meet even his senior ministers sometimes for years.

¹¹¹ Keith B. Payne and David J. Trachtenberg, *Deterrence in the Emerging Great Environment: What is Different and Why it Matters, Occasional Paper*, Vol. 2, No. 8 (Fairfax, VA: National Institute Press, 2022), available at <https://nipp.org/wp-content/uploads/2022/08/OP-Vol.-2-No.-8.pdf>.

¹¹² Countries often welcome ambiguity in their alliance commitments, precisely to avoid entrapment. See Alexander Lanoszka, *Military Alliances in the Twenty-First Century* (Cambridge, UK: Polity, 2022), pp. 50-74.

Alliance Politics and Arms Control

U.S. allies have favored arms control talks between superpowers, especially during periods of heightened tension. In fact, arms control with the Soviet Union was a component of the Reagan Administration's dual-track approach to intermediate-range nuclear forces that helped to sustain the controversial *Pershing II* deployments to Europe despite Soviet Union's extensive efforts to disrupt them.¹¹³

U.S. post-Cold War reductions and multipolarity make the achievement of meaningful arms control more difficult. At the strategic level, the United States reduced (along with the Russian Federation) its nuclear arsenal from a maximum of 6,000 accountable warheads under the 1991 Strategic Arms Reduction Treaty (START) to 1,550 accountable warheads under the 2010 New START.¹¹⁴ This force posture, largely retained by the Trump and Biden administrations to date, assumed that the United States and Russia were "no longer adversaries," and that "prospects for military confrontation have declined dramatically."¹¹⁵ The 2010 *NPR* also noted that "China's nuclear arsenal remains much smaller than the arsenals of Russia and the United States."¹¹⁶ However, the gap between the *NPR's* 2010 assumptions and contemporary reality is significant and will likely grow. Threat trends make the prospect of further strategic force reductions difficult at best and argue against any U.S. unilateral nuclear reductions. The 2020 *Nuclear Employment Guidance* elucidates the point:

Given the range of possible adversary nuclear employment scenarios, it would be imprudent for the United States to reduce its nuclear forces unilaterally at this time or in the near future. Unilateral U.S. nuclear reductions would likely degrade the deterrence of attacks on the United States, its allies, and partners; undermine the assurance of allies and partners; and do nothing to halt the continuing modernization and projected substantial increases in Russian and Chinese nuclear arsenals. Instead, U.S. unilateral reductions could encourage Russian and Chinese expansion of their capabilities. In addition, unilateral U.S. nuclear reductions would undermine U.S. leverage in a future arms control negotiation.¹¹⁷

In fact, continuing a Cold War-style arms control process that was rooted the balance of terror logic could undermine the U.S. goal of having a stable regional relationship with other

¹¹³ Vladimír Černý and Petr Suchý, "Spies and Peaceniks: Czechoslovak Intelligence Attempts to Thwart NATO's Dual-Track Decision," *Information Series*, No. 456 (Fairfax, VA: National Institute Press, April 8, 2020), available at https://nipp.org/information_series/cerny-vladimir-and-petr-suchy-spies-and-peaceniks-czechoslovak-intelligence-attempts-to-thwart-natos-dual-track-decision-information-series-no-456/.

¹¹⁴ Amy F. Woolf, "U.S. Strategic Nuclear Forces: Background, Developments, Issues," *Congressional Research Service*, CRS Report RL33640, December 14, 2001, pp. 4-5, available at <https://sgp.fas.org/crs/nuke/RL33640.pdf>.

¹¹⁵ Department of Defense, *Nuclear Posture Review Report*, 2010, p. iv, available at https://dod.defense.gov/Portals/1/features/defenseReviews/NPR/2010_Nuclear_Posture_Review_Report.pdf.

¹¹⁶ *Ibid.*, p. v.

¹¹⁷ United States Department of Defense, *Report on the Nuclear Employment Strategy of the United States – 2020* (Washington, D.C.: Department of Defense, 2020), p. 87, available at nipp.org/document-number-one.

nuclear powers.¹¹⁸ At the same time, the definition of what constitutes stabilizing arms control must be updated to account for the realities of a post-Cold War national security environment that is significantly more diverse and unpredictable.¹¹⁹ Most importantly, the United States ought to move away from focusing on the technical specifications of nuclear systems as a basis for deciding whether a system is stabilizing or destabilizing because an adversary's political goals that these weapons are supposed to serve determine the character of the threat.¹²⁰

Do opponents deem these goals to be of existential importance? Do they demand crossing established U.S. deterrence redlines? Are they intended to overturn the political status quo? In other words, how countries *use* capabilities to advance their political goals is much more important from the perspective of maintaining strategic stability than are a weapon's technical parameters. As noted strategist Colin Gray pointed out, "The policy purposes of states, or the orientation of strategies - but not individual weapons - may be offensive or defensive."¹²¹ Low-yield nuclear options can be stabilizing or destabilizing, depending on the goals of the country that has them and its associated behavior. Missile defenses in the hands of status quo powers can be highly stabilizing, even though the Cold War strategic stability paradigm labeled almost all missile defense programs destabilizing. Allies are likely to be sensitive to these contextual factors and they will inform their assurance requirements.

Missile Defense Is Increasingly Important

Because deterrence is inherently uncertain, and even more so in a multipolar context, missile defenses are bound to increase in importance in a new environment with multiple nuclear-armed adversaries.¹²² In the hands of revisionist powers, ballistic missiles have a large coercive potential because they give them a capability to destroy targets thousands of miles away within minutes while making it extremely challenging to defend against them. It was the dawn of parity in Soviet ballistic missiles with the range to reach the U.S. homeland that undermined the credibility of the U.S. commitment to Europe's security during the Cold War.

Today, revisionist powers can use ballistic, cruise, and hypersonic missiles for the same purpose—to intimidate and inhibit the United States from helping its allies in a crisis. Thanks to the prevalence of the Cold War stability paradigm, the United States is not much better off

¹¹⁸ More on this point in Keith B. Payne and Michaela Dodge, *Stable Deterrence and Arms Control in a New Era, Occasional Paper*, Vol. 1, No. 9 (Fairfax, VA: National Institute Press, 2021), pp. 21-29, available at <https://nipp.org/wp-content/uploads/2021/09/Payne-Dodge-OP-9.pdf>.

¹¹⁹ Colin S. Gray, *Defense Planning for National Security: Navigation Aids for the Mystery Tour* (Carlisle, PA: Strategic Studies Institute, U.S. Army War College, 2014), available at <http://publications.armywarcollege.edu/pubs/2264.pdf>.

¹²⁰ Keith Payne and Michaela Dodge, "Stable Deterrence and Arms Control in a New Era," *op. cit.*, p. 32.

¹²¹ Colin S. Gray, *War, Peace, and Victory: Strategy and Statecraft for the Next Century* (New York: Simon & Schuster, 1990), pp. 150-151.

¹²² For more on this development, see Matthew R. Costlow, *Vulnerability is No Virtue and Defense is No Vice: The Strategic Benefits of Expanded U.S. Homeland Missile Defense, Occasional Paper*, Vol. 2, No. 9 (Fairfax, VA: National Institute for Public Policy, 2022), available at <https://nipp.org/wp-content/uploads/2022/09/OP-Vol.-2-No.-9.pdf>.

to counter the Russian or Chinese long-range missile threat than it was decades ago. The situation today is in some respects more dangerous than it was during the Cold War because more revisionist countries continue to improve their ballistic missiles and have or could be developing nuclear warheads that would fit them.¹²³

The United States recognized that relying on large-scale punitive deterrence threats alone vis-à-vis these new actors was undesirable when it withdrew from the 1972 Anti-Ballistic Missile Treaty in 2002 and started limited missile defense deployments in the United States. Missile defenses also became an increasingly important component of U.S. relations with allies, particularly in NATO Europe. The United States negotiated about the placement of long-range missile defense components with the Czech Republic and Poland in the 2006-2009 timeframe and even though the initial efforts were unsuccessful, the negotiations resulted in a more positive missile defense appraisal among NATO allies than was previously the case.¹²⁴ The United States currently has one operational short- and intermediate-range *Aegis Ashore* site in Romania, and another one is in the process of being brought online in Poland.

The challenge the United States and its allies will face in the near future is that as North Korea's and Iran's missile capabilities mature and increase in sophistication, either the United States will need to improve its missile defense systems, giving them some degree of capability against China's and Russia's longer-range missiles, or it will have to become vulnerable to North Korea's and Iran's missile threats.¹²⁵ So far, every administration has rejected this vulnerability, partly due to allied concerns over the negative implications of U.S. vulnerability for the continued U.S. commitment to their security. The challenge is already present at the theater level, where any appreciable missile defense capability against North Korea, for example, would mean the United States and its allies could have a latent defensive capability against China, too.

Nuclear Deterrence Enables Conventional Deployments, a Very Potent Assurance

U.S. conventional forward deployments help U.S. security guarantees appear more credible because they are a visible reminder of American willingness to fight and may not be easily withdrawn in a crisis.¹²⁶ They are an inseparable component of judging the credibility of U.S.

¹²³ Laurence Norman, "U.N. Says Iran Has Enough Uranium to Produce Nuclear Weapon," *Wall Street Journal*, May 30, 2022, available at <https://www.wsj.com/articles/iran-hasnt-provided-credible-explanations-for-nuclear-material-u-n-agency-says-11653923148>.

¹²⁴ On the story of U.S.-Czech missile defense cooperation, see Michaela Dodge, *U.S.-Czech Missile Defense Cooperation--Alliance Politics in Action* (Fairfax, VA: National Institute Press, 2020), and Michaela Dodge, "A Decade of U.S.-Romanian Missile Defense Cooperation: Alliance Success," *Information Series*, No. 482 (Fairfax, VA: National Institute Press, March 18, 2021), available at https://nipp.org/information_series/dodge-michaela-a-decade-of-u-s-romanian-missile-defense-cooperation-alliance-success-information-series-no-482-march-18-2021/.

¹²⁵ Michaela Dodge, "Missile Defense Reckoning is Coming. Will the United States Choose to be Vulnerable to All Long-Range Missiles?," *Information Series*, No. 465 (Fairfax, VA: National Institute Press, August 20, 2020), available at <https://nipp.org/wp-content/uploads/2021/03/IS-465.pdf>.

¹²⁶ Michael A. Hunzeker & Alexander Lanoszka, "Landpower and American Credibility," *Parameters*, Vol. 45, No. 4 (2015), pp. 20-21, available at <https://press.armywarcollege.edu/parameters/vol45/iss4/4/>.

extended deterrence and assurance guarantees and are one of the most important visible ways in which the United States can demonstrate its commitment to allied security. For allies, conventional deployments are relatively easy to grasp because they are tangible and measurable—often involving American “boots on the ground”—unlike nuclear deterrence or assurance.

Yet, conventional deployments also depend on effective nuclear deterrence. As Admiral Richard elaborated, “Every 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 that, “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.”¹²⁷ For conventional forces to contribute to assurance, they must not be perceived as being easily defeated in a crisis. As some defense experts have observed, “Allies do not have faith in American commitments because American troops might die; they have faith because American troops can kill and win.”¹²⁸

The U.S. Nuclear Weapons Production Complex Is a Part of Assurance and Extended Deterrence

The atrophy of the U.S. nuclear weapons complex is a less appreciated problem for U.S. extended deterrence and assurance, partially because the cadre of experts who understand the issue is relatively small in the United States and even smaller in allied countries. During the Cold War, the U.S. nuclear weapons production complex could be relied upon to meet shifting U.S. nuclear deterrence requirements in a timely manner. New nuclear warhead designs were regularly certified during a demanding process of underground tests and entered the stockpile as military requirements evolved and new technologies were developed. Nuclear weapons designers maintained hands-on proficiency in all areas relevant to the development and deployment of new nuclear warheads.

During the Cold War, the U.S. nuclear weapons complex was robust, flexible, and reliable, and discussions about whether it would perform its functions as expected were not a significant part of U.S. extended deterrence or assurance discussions. Neither were they a significant part of the U.S. arms control process. According to George Miller, former director of the Lawrence Livermore National Laboratory, “the basis of confidence in the nuclear deterrent was really founded on confidence in the nuclear enterprise.”¹²⁹ The approach to sustaining the nuclear enterprise was underpinned “by a robust laboratory complex capable of performing full-scale nuclear explosive tests, computational simulations, non-nuclear

¹²⁷ 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/>.

¹²⁸ Hunzeker and Lanoszka, “Landpower and American Credibility,” op. cit., p. 20.

¹²⁹ George Miller, “Stockpile Stewardship: What Were We Thinking? How Did It Work Out?,” in *Stockpile Stewardship in an Era of Renewed Competition*, Brad Roberts, ed. (Livermore, CA: Center for Global Security Research at Lawrence Livermore National Laboratory, April 2022), p. 6.

tests, and basic science investigations of the underlying physics, chemistry, and materials science.”¹³⁰ The United States did not sustain this capable nuclear weapons complex after the end of the Cold War.

Despite every single post-Cold War Administration’s commitment to keep the nuclear complex flexible and resilient, these are not the first words that come to mind when thinking about the nuclear enterprise. More than a third of the National Nuclear Security Administration’s (NNSA’s) workforce will be eligible for retirement in the next 5 years.¹³¹ According to Charles Verdon, then-Acting Under Secretary for Nuclear Security and Administrator of the National Nuclear Security Administration, “Approximately 60 percent of NNSA’s facilities are more than 40 years old and more than 50 percent are in poor condition. Assessments of facilities throughout the enterprise have identified numerous single-point failures.”¹³²

In a multipolar environment, the atrophy of the U.S. nuclear warhead complex since the end of the Cold War may give rise to allied fears that the United States will not be able to respond to continuing negative regional and strategic trends in a timely manner. Ongoing delays and over-budget efforts to produce plutonium pits, core components of nuclear warheads, are symptomatic of broader problems within the nuclear enterprise, including its persistent problem to execute Life Extension Programs on time and on budget.¹³³ Even though the NNSA’s challenges are unlikely to be the main factors impacting whether other countries feel assured, the problematic state of the U.S. nuclear warhead infrastructure could contribute to proliferation pressures, particularly in countries where the population is already generally supportive of an indigenous nuclear weapons program.¹³⁴

Conclusion

The United States no longer has the luxury of conducting “business as usual” when it comes to extending deterrence and assuring allies. Russia’s and China’s manifestly revisionist intentions and their increasing nuclear capabilities raise new challenges for U.S. extended deterrence and assurance. In this new environment, U.S. conventional deployments remain a powerful demonstration of U.S. commitment to allied security, missile defenses are bound

¹³⁰ Ibid.

¹³¹ U.S. Department of Energy, National Nuclear Security Administration, “NNSA looks to recruit the next generation of nuclear security talent and hire thousands annually,” August 23, 2021, available at <https://www.energy.gov/nnsa/articles/nnsa-looks-recruit-next-generation-nuclear-security-talent-and-hire-thousands>.

¹³² Charles Verdon, Statement before the Subcommittee on Strategic Forces, Committee on Armed Services, U.S. Senate, May 19, 2021, p. 2, available at <https://www.armed-services.senate.gov/imo/media/doc/5-19-21%20Verdon%20Testimony%20SASC%20FINAL.pdf>.

¹³³ Michaela Dodge, “Nuclear Weapons: United States Should Rebuild Its Plutonium Pit Manufacturing Capability,” The Heritage Foundation *Backgrounder* No. 3581, February 1, 2021, available at <https://www.heritage.org/sites/default/files/2021-02/BG3581.pdf>.

¹³⁴ For example, nearly three quarters of South Koreans support developing their own nuclear weapons according to a recent poll. See Mitch Shin, “Nearly Three-Quarters of South Koreans Support Nuclear Weapons Development,” *The Diplomat*, February 22, 2022, available at <https://thediplomat.com/2022/02/nearly-three-quarters-of-south-koreans-support-nuclear-weapons-development/>.

to increase in importance and a lack of flexibility and responsiveness within the nuclear warhead complex becomes more worrisome.

ALLIED EXPERTS' VIEWS OF U.S. ASSURANCES AND EXTENDED DETERRENCE

The following section draws from the perspectives of over 20 experts from allied states interviewed for this study. They were invited to comment on the U.S. goal of assurance and extended deterrence and the various means the United States has in order to support those goals. In addition to expert interviews, this section draws on available official statements, reports, and notable commentaries for each of the regions examined.¹³⁵

Based on this information, this section examines tendencies and trends in how experts in allied countries see extended deterrence, define assurance, and the types of U.S. steps they consider assuring based on their assessment of each country's unique assurance profile. While this article treats regions cohesively, it is important to mention that there is no single broad regional perspective; rather, each allied country has its own understanding of extended deterrence and assurance requirements, even as they may overlap with the perspectives of other allied countries. Indeed, experts within the same country may disagree to some extent on steps the United States should take to tailor extended deterrence and assurance.

Multipolarity, Assurance, and Extended Deterrence in Europe

In Europe, the United States provides assurance and extended deterrence to NATO members. Since the end of the Cold War, NATO accepted into its rank formerly captive nations previously within Soviet borders and members of the Warsaw Pact. Poland, the Czech Republic, and Hungary joined NATO in 1999. Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia, and Slovenia in 2004, and Albania and Croatia followed in 2009. Montenegro joined NATO in 2017 and the Republic of North Macedonia became the newest member of the Alliance in 2020. At the time of this writing, Finland and Sweden are in the process of becoming accepted as NATO members. U.S. *NPRs* in 2001, 2010, and 2018, all written since NATO's first round of membership growth, appear not to devote significant attention to whether and how the assurance and extended deterrence views of these new NATO members may differ from the older NATO members. The United States cannot assume that its approaches to assurance, and extended deterrence are viewed by new NATO members in the same manner as they are by countries that joined the Alliance during the Cold War because threat perceptions of countries that used to be a part of the Warsaw Pact or Soviet

¹³⁵ The interviews were conducted virtually between June and August 2022. The list of those who were interviewed and agreed to be listed in the study can be found on page 66. The Biden Administration's *NPR* was not yet publicly released when these interviews were conducted, and relatively little information was available about terms the Administration used publicly to describe the content of the *NPR*, such as "integrated deterrence" or "fundamental purpose."

Union, and are geographically closer to Russia's borders, are different than those that were a part of NATO during Cold War. Understanding their views, and the requirements that may follow from those views, has become increasingly important as the number of such NATO members expands and Russia's revanchist goals become more apparent.

None of the "new" NATO countries reportedly hosts U.S. nuclear weapons or infrastructure,¹³⁶ nor do they have a long history of holding strategic deterrence dialogues with the United States. The U.S. experience with planning a ballistic missile defense radar installation in the Czech Republic between 2006 and 2009 showed how small the Czech national security community is—especially those who are knowledgeable and conversant with nuclear deterrence issues.¹³⁷

In 2018, then-U.S. Secretary of Defense James Mattis said, "Every NATO ally is awake to the most complex and dangerous security element – or environment in a generation."¹³⁸ NATO Secretary General Jens Stoltenberg observed that NATO faces "unprecedented challenges."¹³⁹ Russia's major expansion of the war in Ukraine in February 2022 reaffirmed his words and is currently one of the most important variables impacting extended deterrence and assurance perspectives among allies in Europe. It is also a significant factor for allies in the Indo-Pacific region.

Russia's War in Ukraine. The scale and brutality of Russia's February 2022 invasion of Ukraine came as a shock within NATO. Moscow's previous 2014 illegal annexation of Ukrainian territory sharpened divisions among states that felt that Russia's geopolitical backsliding (or perhaps what can be called a return to "normal") potentially threatens their sovereignty and territorial integrity and those that rejected such notions and continued to increase their energy dependence on Russia's oil and gas. The former are generally states that joined NATO since the end of the Cold War; Germany is a prominent example of the latter. Russia, however, has been waging a hybrid warfare campaign against NATO allies for years, assassinating their citizens, manipulating Western electorates, and destroying allied property.¹⁴⁰

In 2022, differences remain among European states regarding the proper scale of military assistance to the Ukrainians, the extent of sanctions on Russia, the acceptability of economic costs that go hand in hand with divesting the European Union (EU) of Russia's oil and gas, and the degree to which countries should actively counter Russia's hybrid warfare

¹³⁶ Hans Kristensen and Matt Korda, "United States Nuclear Weapons, 2022," op. cit., p. 56.

¹³⁷ Michaela Dodge, "U.S.-Czech Ballistic Missile Defense Cooperation: Lessons Learned and Way Forward for Others," *Comparative Strategy* Vol. 39, No. 3 (May 3, 2020), pp. 288-98, available at <https://doi.org/10.1080/01495933.2020.1740573>.

¹³⁸ *News Conference by Secretary Mattis at NATO Headquarters, Brussels, Belgium*, October 4, 2018, available at <https://www.defense.gov/Newsroom/Transcripts/Transcript/Article/1654419/news-conference-by-secretary-mattis-at-nato-headquarters-brussels-belgium/>.

¹³⁹ NATO, "NATO: Good for Europe and Good for America' - Address to the United States Congress by NATO Secretary General Jens Stoltenberg," April 3, 2019, available at http://www.nato.int/cps/en/natohq/opinions_165210.htm.

¹⁴⁰ For more information on this topic see for example Michaela Dodge, *Russia's Influence Operations in the Czech Republic, Poland, and Romania, Occasional Paper*, Vol. 2, No. 4 (Fairfax, VA: National Institute Press, 2022), available at <https://nipp.org/wp-content/uploads/2022/04/OP-Vol.-2-No.-4.pdf>.

on their territories. Particularly worrisome for some is Hungary's apparent sympathy for Putin.¹⁴¹ Just as problematic is Germany's continued unwillingness to divest itself of its dependence on Russia's oil. Whereas government officials in the Baltic states and Poland did not particularly worry about a Russian large-scale invasion just a few years ago,¹⁴² such concerns are considered more plausible today, even as Russia is depleting its forces and manpower in Ukraine.

The interviewees agreed that the outcome of Russia's war in Ukraine will be an important factor in shaping how allies define their assurance needs in the future, particularly with respect to those that are close to Russia's borders. The results of the war are directly tied to these states' perceptions of their own security. Should Russia come out of the war emboldened, some U.S. NATO allies, particularly those that were part of the Warsaw Pact, will likely be even more concerned about Russia's threat than they are today, and their assurance requirements could correspondingly increase. Extended deterrence could be weakened should Russia achieve some measure of victory in Ukraine. Consequently, the United States would have to take additional steps to assure these allies, potentially exacerbating already difficult budgetary choices it has to make with regard to its forces.

The extent to which Russia's war in Ukraine degrades Russia's capabilities, industrial potential, manpower resources, and general appearance as a military threat will influence how safe U.S. allies feel and shape their view of U.S. requirements for their assurance. Should Russia emerge from the war significantly weaker, assurance demands could even decrease until such time that Russia reconstitutes its military capabilities and presents a threat to Europe yet again.

Even under a scenario of Russia lacking apparent capabilities and will to threaten other European states, demands for U.S. assurance will not go away, particularly given what some former Warsaw Pact nations perceive as Europe's inadequate response to punish Russia for its invasion and the unwillingness of some European states to impose more severe costs on Russia. Russia will likely remain a long-term geopolitical challenge. "Russia will rebuild and reinvest in its military at some point. We have to be ready for that point," argued Dominik Jankowski, Head of the Political Section of the Permanent Delegation of Poland to NATO.¹⁴³

From the perspective of European states that feel more threatened by Russia (generally those close to Russia's border), the limited support of Ukraine by some other European states (e.g., Germany, France) undermines their credibility as European security providers. In other words, demands for a U.S. presence and assurance are unlikely to abate anytime soon. Central and Eastern European NATO members will be skeptical at best of future efforts to structure a common European defense and security policy and will not want to rely on Europe's capabilities alone for their security.

¹⁴¹ Richard Kraemer and Jakub Janda, "Orban's Hungary: A Russia and China Proxy Weakening Europe," The European Values Think Tank *Report*, 2021, available at https://europeanvalues.cz/wp-content/uploads/2022/01/ORBANS_HUNGARY_A_RUSSIA_AND_CHINA_PROXY_WEAKENING_EUROPE.pdf.

¹⁴² Alexander Lanoszka and Michael Hunzeker, *Conventional Deterrence and Landpower in Northeastern Europe* (US Army War College Press, 2019), p. 2, available at <https://press.armywarcollege.edu/monographs/381>

¹⁴³ Zoom interview conducted July 21, 2022.

NATO's efforts to improve relations with the Russian Federation in the 1990s are embodied in the 1997 "Founding Act on Mutual Relations, Cooperation and Security between NATO and the Russian Federation" (also known as the NATO-Russia Founding Act). The Act reiterated that NATO member states have "no intention, no plan and no reason to deploy nuclear weapons on the territory of new members, nor any need to change any aspect of NATO's nuclear posture or nuclear policy," and that "the Alliance will carry out its collective defence and other missions by ensuring the necessary interoperability, integration, and capability for reinforcement rather than by additional permanent stationing of substantial combat forces."¹⁴⁴ Due to Russia's aggressive actions, senior diplomats who worked on developing the document recently came out in favor of its suspension.¹⁴⁵ They argue that "Vladimir Putin's actions have destroyed the basis for cooperation" and that NATO should in particular "renounce its assurance regarding the stationing of conventional forces on the territory of new member states."¹⁴⁶

Several interviewees stated that the United States ought to formally abrogate the NATO-Russia Founding Act and that the Act is dead for all intents and purposes. Concerns over whether a U.S. military presence in former Warsaw Pact countries is consistent with the U.S. "understanding of the NATO-Russia Founding Act"¹⁴⁷ are counterproductive, according to some interviewees, since the Act was signed under very different geopolitical conditions and a much more benign Russian foreign policy. The formal abrogation of the NATO-Russia Founding Act would open the possibility for states that joined NATO since the end of the Cold War to increase their participation in NATO's nuclear sharing arrangements. While the interviewees generally agreed that it is not necessary to forward deploy U.S. nuclear weapons to these states, they underscored that the option to increase their involvement in NATO's burden-sharing arrangements in the nuclear area should be explored further. Some NATO allies indicated their willingness to do so. For example, Polish President Andrzej Duda recently stated that "The problem above all is that we don't have nuclear weapons" and that "There is always the opportunity to participate in nuclear sharing. We have spoken to US leaders about whether the US is considering such a possibility. The topic is open."¹⁴⁸ The

¹⁴⁴ North Atlantic Treaty Organization, "Founding Act on Mutual Relations, Cooperation and Security between NATO and the Russian Federation Signed in Paris, France," May 27, 1997, available at http://www.nato.int/cps/en/natohq/official_texts_25468.htm.

¹⁴⁵ Daniel Fried, Steven Pifer, Alexander Vershbow, "NATO-Russia: It's time to suspend the Founding Act," *The Hill*, June 7, 2022, available at <https://thehill.com/opinion/international/3514801-nato-russia-its-time-to-suspend-the-founding-act/>.

¹⁴⁶ *Ibid.*

¹⁴⁷ The White House, "On-the-Record Press Call by NSC Coordinator for Strategic Communications John Kirby and Assistant Secretary for Defense Celeste Wallander," June 29, 2022, available at <https://www.whitehouse.gov/briefing-room/press-briefings/2022/06/29/on-the-record-press-call-by-nsc-coordinator-for-strategic-communications-john-kirby-and-assistant-secretary-for-defense-celeste-wallander/>.

¹⁴⁸ Jo Harper, "Poland in talks to join NATO nuclear sharing program," *Anadolu Agency*, October 5, 2022, available at <https://www.aa.com.tr/en/europe/poland-in-talks-to-join-nato-nuclear-sharing-program/2703041>.

White House subsequently denied having talks with Poland about Poland hosting nuclear weapons.¹⁴⁹

Following Russia's invasion of Ukraine, several European countries recently announced extensive defense modernization programs. "Russia's war in Ukraine has opened up an opportunity for the Americans to lead yet again as European countries are willing to increase their defense budgets," according to Michael Rühle, Head of the Hybrid Challenges and Energy Security Section in the Emerging Security Challenges Division in NATO's International Staff.¹⁵⁰ Some of these programs could enable their more involved participation in nuclear sharing arrangements.¹⁵¹ For example, Dominik Jankowski mentioned that "the United States and Poland could explore giving Polish F-35s a role in nuclear sharing arrangements. For example, the crews could train nuclear weapon delivery, even if Poland will not host U.S. nuclear weapons."¹⁵²

Despite these developments, the scale of Western support for Ukraine and the West's apparent unpreparedness to fight a war involving the production of large quantities of equipment, are such that it will take years to replenish certain depleted weapon stocks. This could have potential negative implications for deterrence and assurance.¹⁵³ The level of 155 mm combat rounds in U.S. military storage has reportedly become "uncomfortably low." But the problem is more widespread than that and reportedly includes a looming "ammunition shortage."¹⁵⁴ This is concerning and does not bode well for the U.S. ability to keep up with simultaneous large-scale regional engagements or with a direct conflict with peer powers.

Some allies are tapping into their own weapons stocks and have called on the United States to fulfill their weapon orders faster to replenish their stockpiles.¹⁵⁵ Dr. Kenton White, lecturer at the University of Reading in the United Kingdom, pointed out that at present, "The West does not have the industrial infrastructure to support industrial war; hard to be

¹⁴⁹ Alyssa Blakemore, "White House Denies Having Talks With Poland To Host US Nukes Amid Escalating Tensions With Russia," *Daily Caller*, October 5, 2022, available at <https://dailycaller.com/2022/10/05/poland-talks-host-us-nukes-amid-escalating-tensions-russia-polish-president-claims/>.

¹⁵⁰ Zoom interview conducted on July 7, 2022.

¹⁵¹ Brad Lendon, Yoonjung Seo and Joseph Ataman, "Poland to buy hundreds of South Korean tanks, howitzers after sending arms to Ukraine," *CNN*, July 28, 2022, available at <https://abc17news.com/news/national-world/cnn-asia-pacific/2022/07/28/poland-to-buy-hundreds-of-south-korean-tanks-howitzers-after-sending-arms-to-ukraine-2/>; Jan Lopatka, "Czechs want F-35 fighter jets, CV-90 fighting vehicles," *Reuters*, July 20, 2022, available at <https://www.reuters.com/business/aerospace-defense/czechs-want-f-35-fighter-jets-cv-90-fighting-vehicles-media-says-2022-07-20/>.

¹⁵² Zoom interview conducted on July 21, 2022.

¹⁵³ Steff Chávez, "Defence companies face supply snags as demand for US weapons rises," *Financial Times*, May 9, 2022, available at <https://www.ft.com/content/230f39ed-9403-4de1-93c8-56c2162e217d>.

¹⁵⁴ Gordon Lubold, Nancy Youssef, and Ben Kesling, "Ukraine War Is Depleting U.S. Ammunition Stockpiles, Sparking Pentagon Concern," *Wall Street Journal*, August 29, 2022, available at <https://www.wsj.com/articles/ukraine-war-depleting-u-s-ammunition-stockpiles-sparking-pentagon-concern-11661792188>.

¹⁵⁵ Alex Horton, Karoun Demirjian and Michael Birnbaum, "U.S. allies most vulnerable to Russia press for more troops, weapons," *The Washington Post*, August 13, 2022, available at <https://www.washingtonpost.com/national-security/2022/08/13/us-military-baltics-russia/>.

engaged in two theaters simultaneously when we did not maintain the capability to do so.”¹⁵⁶ These trends potentially undermine U.S. assurance and extended deterrence.

The totality of the implications for extended deterrence of Russia’s annexation of significant portions of Ukraine remain to be seen. On the one hand, Russia’s war has exposed systemic problems in its military that undermine Russia’s apparent ability to fight well, particularly against a well-motivated and increasingly well-armed Ukraine. Corruption, an inability to conduct joint operations, and poor logistics have hampered Russia’s performance in Ukraine. On the other hand, Russia’s conventional losses may lead it to increase its reliance on nuclear weapons in the future, particularly against an adversary that Russia knows is stronger conventionally. That could put the U.S. extended deterrence goals for NATO allies in a difficult position given the significant disparity in tactical nuclear weapons between the North Atlantic alliance and Russia.

Conventional Capabilities. From an allied perspective, U.S. forward-deployed conventional forces remain the most visible and valuable component of assurance in NATO countries that do not host U.S. nuclear weapons. Russia’s invasion of Ukraine means that—despite a general recognition that China is the “pacing threat”—the United States must focus on Europe for the time being. This “‘comeback’ to Europe is reassuring to allies,” according to Professor Beatrice Heuser of the University of Glasgow.¹⁵⁷ European member states welcome NATO’s efforts to bolster deterrence of potential Russian aggression by strengthening its military presence closer to Russia’s borders, but they worry about the United States being more concerned with China at the expense of its attention to Europe in the long-term.

There are conventional capabilities that would improve NATO’s posture in Europe and that the United States can provide relatively more easily and on a larger scale than its allies. A key challenge for NATO (and the United States) is to get forces where they need to be fast. Dominik Jankowski stated that “We need better reconnaissance capabilities and more airlift capabilities. We should bring allied airpower closer to Russia’s borders.”¹⁵⁸ Lukas Milevski, assistant professor at Leiden University in the Netherlands concurred, noting: “Baltic states need long-range artillery and air defense. They also need infrastructure improvements to be able to handle a potential influx of forces.”¹⁵⁹ U.S. conventional presence is seen as adequate for now, although there is “the more, the better” sense among allies, particularly in countries close to the frontlines. The challenge is that, as defense analyst Dr. Jacek Durkalec pointed out, “Allies perhaps do not currently see the need to significantly upgrade the U.S. forward-deployed posture, but by the time they see the need, it may be too late.”¹⁶⁰ This observation applies to both conventional and nuclear forces.

¹⁵⁶ Zoom interview conducted on July 8, 2022.

¹⁵⁷ Telephone interview conducted on July 6, 2022.

¹⁵⁸ Zoom interview conducted on July 21, 2022.

¹⁵⁹ Zoom interview conducted on July 22, 2022.

¹⁶⁰ Zoom interview conducted on August 4, 2022.

Several interviewees raised a concern regarding the potential implications of multipolarity on the U.S. ability to sustain a military presence in two geographically distant theaters. This is not just a matter of capability, but also of organizing the government to deal with the challenge. As Kenton White pointed out, “The largest problem with multipolarity is our lack of focus. We run from one adversary to the next without getting either right.”¹⁶¹ Allies in Europe are relatively less worried about China, even as they increasingly perceive it as a threat, with some U.S. prompting. Dr. Bruno Tertrais, Deputy Director of the *Fondation pour la Recherche Stratégique (FRS)*, mentioned that “It is not a given that China will be a nuclear competitor,” potentially indicating that some in Europe may not see China’s presumed nuclear build up as such a pressing security problem as does the United States.¹⁶² Dominik Jankowski, however, pointed out that Poland perceives “a shift in the balance of power” regarding “China’s rapidly increasing capabilities,” which “was not the case two years ago.”¹⁶³ “We are facing a real and severe deterrence challenge,” stated Geoffrey Sloan, Assistant Professor in the Department of Politics and International Relations at Reading University, in the United Kingdom.¹⁶⁴ “Chinese and Russian cooperation is problematic,” he added.¹⁶⁵ Since conventional capabilities are an important aspect of allied assurance, the apparent U.S. inability to sustain a significant military presence in two theaters simultaneously is increasingly concerning as international security conditions deteriorate and challenge U.S. assurance goals.

Some interviewees raised concerns about the polarization of U.S. domestic politics and the impact of this dynamic on the U.S. willingness to spend resources on allied defense and sustain forward-troop deployments. As Dr. Petr Suchý, Vice-dean of Internationalization and Student Affairs at the Faculty of Social Studies at Masaryk University in Brno, Czech Republic, noted, “A larger degree of continuity in U.S. foreign and defense policy and avoiding politicization are important for the functioning of extended deterrence.”¹⁶⁶ Allies worry about isolationist tendencies within the U.S. body politic and that the European theater will get deprioritized relative to the Indo-Pacific. Many interviewees mentioned as damaging President Trump’s rhetoric regarding the importance and even desirability of transatlantic relations. According to Michael Rühle, “The Europeans are worried that President Biden might be the last true Atlanticist.”¹⁶⁷ “The consistency of U.S. policies is the most important step at this point in time,” according to Kenton White.¹⁶⁸

Interviewees also mentioned the importance of U.S. assistance in building up their own country’s forces to resist a potential Russian invasion. Hosting U.S. forces on allied countries’ territory is seen as an ultimate guarantee of their sovereignty. Illustrating the point, Polish

¹⁶¹ Zoom interview conducted on July 8, 2022.

¹⁶² Zoom interview conducted on July 28, 2022.

¹⁶³ Zoom interview conducted on July 21, 2022.

¹⁶⁴ Zoom interview conducted on July 12, 2022.

¹⁶⁵ Ibid.

¹⁶⁶ Zoom interview conducted on July 25, 2022.

¹⁶⁷ Zoom interview conducted on July 7, 2022.

¹⁶⁸ Zoom interview conducted on July 8, 2022.

then-Foreign Minister Radoslaw Sikorski argued in 2008: “Come on! You [the United States] spend more on military than the rest of the world put together. Of course you have unique credibility as regards security measures. So, of course everybody assumes that countries that have U.S. soldiers on their territory do not get invaded.”¹⁶⁹

Joint military exercises and helping countries improve their interoperability with NATO forces are an important component of assurance. Allies value recently announced U.S. increased efforts in this direction.¹⁷⁰ Consequently, the United States ought to consider large-scale military exercises demonstrating such capabilities, along the lines of the Exercise Campaign REFORGER it conducted during the Cold War. As Lukas Milewski pointed out, “Logistics underpins deterrence, which is why the United States must regularly practice deployments and exercise with allies.”¹⁷¹

Nuclear Weapons Capabilities. Recognition of the importance of nuclear weapons to extended deterrence and the security of allies is apparent in all NATO’s strategic concepts since the end of the Cold War. For example, the 1999 *Strategic Concept* stated that U.S. nuclear weapons provide “the supreme guarantee of the security of the Allies”¹⁷² along with “the independent nuclear forces of the United Kingdom and France, which have a deterrent role of their own.”¹⁷³

NATO’s 2010 *Strategic Concept* was significant in that it was the first NATO strategic concept developed with full and more or less equitable participation of new NATO member states at the time. The document committed the Alliance “to the goal of creating conditions for a world without nuclear weapons” but reconfirmed that “as long as there are nuclear weapons in the world, NATO will remain a nuclear Alliance.”¹⁷⁴ While the threat of a conventional attack against NATO territory was considered low, ballistic missile and weapons of mass destruction proliferation were specifically highlighted as potential future challenges threatening Alliance security. The document also stated that NATO will “ensure the broadest possible participation of Allies in collective defence planning on nuclear roles, in peacetime basing of nuclear forces, and in command, control and consultation arrangements.”¹⁷⁵

Voices calling for the withdrawal of U.S. nuclear weapons from Europe became more muted after Russia’s 2022 invasion of Ukraine. Germany announced it would purchase the

¹⁶⁹ Radoslaw Sikorski, “Transcript of Remarks at the Atlantic Council,” November 19, 2008, available at <https://www.atlanticcouncil.org/commentary/transcript/transcript-polish-foreign-minister-radoslaw-sikorski-talks-to-council/>.

¹⁷⁰ Lolita Baldor, “Austin pledges military training, support for Baltics,” *Associated Press*, August 10, 2022, available at <https://apnews.com/article/russia-ukraine-nato-latvia-government-and-politics-be091569a0bee86bffeea0cc75b7179f>.

¹⁷¹ Zoom interview conducted on July 22, 2022.

¹⁷² “The Alliance’s Strategic Concept 1999,” op. cit.

¹⁷³ Ibid.

¹⁷⁴ North Atlantic Treaty Organization, *Active Engagement, Modern Defence*, November 19, 2010, available at https://www.nato.int/cps/en/natohq/official_texts_68580.htm.

¹⁷⁵ Ibid.

F-35 fighter and increase its defense budget.¹⁷⁶ The F-35 is dual-capable and the announcement can be interpreted as reflecting continued German interest in participating in NATO's nuclear mission. On the other hand, "the German public perhaps has not realized yet that the German government buying the F-35s means the continuation of the nuclear mission," according to Beatrice Heuser.¹⁷⁷

The basic tenets of continued agreement on the nuclear aspects of extended deterrence and assurance are apparent in NATO's 2022 *Strategic Concept*, which notes that nuclear weapons are "unique" and labels Russia, including its nuclear modernization and "coercive nuclear signaling" as "the most significant and direct threat to Allies' security and to peace and stability in the Euro-Atlantic area."¹⁷⁸ The concept also states, "The strategic nuclear forces of the Alliance, particularly those of the United States, are the supreme guarantee of the security of the Alliance. The independent strategic nuclear forces of the United Kingdom and France have a deterrent role of their own and contribute significantly to the overall security of the Alliance."¹⁷⁹

Some interviewees were explicitly concerned with Russia's superiority in tactical nuclear forces. For example, Dr. David Lonsdale, Senior Lecturer in War Studies, University of Hull, UK, argued that "Multipolarity makes it more challenging for the United States to assure allies of the credibility of its commitment. In this context, flexibility, which derives from having a range of capabilities, is key. Consequently, the tactical nuclear weapons disparity between the United States and other nuclear powers may be a significant deficiency."¹⁸⁰ The United States ought to "modernize its nuclear weapons" and "seek flexibility and escalation dominance," according to David Lonsdale.¹⁸¹ "We ought to seek warfighting capabilities because they enhance credibility and give you more options should deterrence fail. We lack a theory of victory. This is problematic because all forms of military power must be guided by a sense of how policy objectives will be achieved in the event of conflict," he stated.¹⁸² Dominik Jankowski observed that "Disparity in tactical nuclear weapons is a problem and is an asymmetry we are learning to live with. It also means that declaratory policy continues to be important."¹⁸³ The disparity in short-range nuclear weapons has the potential to undermine allied assurance in the near term.

The interviewees differed in opinions on the utility and desirability of arms control with the Russian Federation. The responses ranged from arms control being seen as counterproductive and downright harmful under current conditions to being marginally

¹⁷⁶ Maria Sheahan and Sarah Marsh, "Germany to increase defence spending in response to 'Putin's war' – Scholz," *Reuters*, February 27, 2022, available at <https://www.reuters.com/business/aerospace-defense/germany-hike-defense-spending-scholz-says-further-policy-shift-2022-02-27/>.

¹⁷⁷ Telephone interview conducted on July 6, 2022.

¹⁷⁸ North Atlantic Treaty Organization, *NATO Strategic Concept 2022*, June 29, 2022, p. 4, available at <https://www.nato.int/strategic-concept/>.

¹⁷⁹ *Ibid.*, p. 8.

¹⁸⁰ Zoom interview conducted on July 11, 2022.

¹⁸¹ *Ibid.*

¹⁸² *Ibid.*

¹⁸³ Zoom interview conducted on July 21, 2022.

useful. For example, Dr. Michal Smetana, Associate Professor at the Faculty of Social Sciences at Charles University and Head of the Peace Research Center in Prague, offered that “The sentiment shared by many East European politicians and bureaucrats is that arms reductions are seen as weakness by Russia, hence the United States should avoid them.”¹⁸⁴ Petr Suchý argued that “The United States should avoid discussing nuclear weapons with the Russian Federation at the present juncture. Discussions about New START follow-on are irrelevant at this point. Some allies would welcome them, others would be concerned.”¹⁸⁵

None of the interviewed experts argued that the United States ought to pursue unilateral nuclear weapons reductions, and many voiced a strong opposition to the idea at this time. Interviewees highlighted the continuation of the U.S. nuclear weapons modernization program as an important aspect of extended deterrence and assurance.

Most interviewees agreed that the U.S. extended deterrence posture is currently credible and that the United States does not need to significantly alter it. Bruno Tertrais caveated the statement “provided it [the U.S.] retains the low-yield Trident.” Michael Rühle argued that “Nobody has questioned the U.S. ability to provide extended deterrence, there are no doubts about the U.S. capability to provide extended deterrence. The United States has to lead on these topics, others will follow.”¹⁸⁶

Missile Defense. There is broad agreement among European allies that regional missile defenses are useful for improving NATO’s overall force posture. After all, two European countries, Poland and Romania, currently host U.S. missile defense assets. Others cooperate on missile defense with the United States to various degrees.¹⁸⁷ So far, this cooperation has been aimed at countering the kinds of limited ballistic missile threats that countries such as Iran can build.

Sentiment, however, appears to tilt toward starting to consider a more comprehensive role for missile defense in NATO’s posture. According to Karel Ulík, a member of the Permanent Delegation of the Czech Republic to NATO, “Russia’s use of ballistic and cruise missiles in a conflict in Ukraine illustrates the importance of missile defense.”¹⁸⁸ David Lonsdale argued that “Missile defense increases the credibility of the U.S. assurance commitment to allies and enhances warfighting by offering damage limitation.”¹⁸⁹ Petr Suchý spoke in favor of developing “a layered missile defense architecture” and getting away “from restraining our missile defenses because of Russia.”¹⁹⁰ These types of opinions appear to be more prevalent among European allied experts today than they were 20 years ago, although

¹⁸⁴ Zoom interview conducted on July 20, 2022.

¹⁸⁵ Zoom interview July 25, 2022.

¹⁸⁶ Zoom interview conducted on July 28, 2022.

¹⁸⁷ For more detailed information on these initiatives see Missile Defense Agency, “International Cooperation,” available at https://www.mda.mil/system/international_cooperation.html.

¹⁸⁸ Zoom interview conducted on July 14, 2022.

¹⁸⁹ Zoom interview conducted on July 11, 2022.

¹⁹⁰ Zoom interview conducted on July 25, 2022.

they likely remain minority opinions for the time being. Missile defense can become a significant allied assurance asset.

Declaratory Policy. The Biden Administration reportedly considered announcing a “sole purpose” nuclear weapons policy in its *NPR*. In 2017 and again upon taking office in 2021, President Biden stated that “the sole purpose of the U.S. nuclear arsenal should be deterring—and, if necessary, retaliating against—a nuclear attack.”¹⁹¹ The Administration reportedly consulted allies about a possible change in declaratory policy beforehand and found that allies were against the change for fear of weakening deterrence.¹⁹² Bruno Tertrais offered the widely shared view, “There should be a pause in reducing the role of nuclear weapons in national security strategies. Anything else will be seen as downgrading of extended deterrence by our adversaries.”¹⁹³

Under allied pressure and in the context of Russia’s brutal invasion of Ukraine, the Biden Administration reportedly decided against announcing a “sole purpose” pledge.¹⁹⁴ The Administration’s *Fact Sheet* released upon the *NPR*’s transmission to Congress speaks to the President’s vision for U.S. nuclear deterrence strategy: “As long as nuclear weapons exist, the fundamental role of U.S. nuclear weapons is to deter nuclear attack on the United States, our allies, and partners. The United States would only consider the use of nuclear weapons in extreme circumstances to defend the vital interests of the United States or its allies and partners.”¹⁹⁵ Several interviewees noted that foregoing the change to “sole purpose” was a welcome decision, and that the Administration should not consider any changes to U.S. declaratory policy amid Russia’s war in Ukraine.

Other Actions. As several interviewees noted, extended deterrence and assurance encompass a spectrum of actions, ranging from hosting U.S. nuclear weapons abroad to filling ambassadorial posts promptly. Petr Suchý pointed out that “Symbolic gestures like staff rides matter.”¹⁹⁶ U.S. conventional actions in other states matter for extended deterrence and assurance, too.

Visits of U.S. officials can serve as another visible indicator of the U.S. commitment to allied security and are valued by allies. For example, Secretary of Defense Austin’s 2022 visit

¹⁹¹ Joseph R. Biden Jr., “Why America Must Lead Again,” *Foreign Affairs*, Vol 99, No. 2 (March/April 2020), available at <https://www.foreignaffairs.com/articles/united-states/2020-01-23/why-america-must-lead-again>.

¹⁹² Demetri Sevastopulo, “US spooks allies by seeking ways to clarify nuclear weapons posture,” *Financial Times*, December 9, 2021, available at <https://www.ft.com/content/8787240e-e7b6-438e-b1df-5b19e2e76272>.

¹⁹³ Zoom interview conducted on July 28, 2022.

¹⁹⁴ Michael Gordon, “Biden Sticks With Longstanding U.S. Policy on Use of Nuclear Weapons Amid Pressure From Allies,” *Wall Street Journal*, March 25, 2022, available at <https://www.wsj.com/articles/biden-sticks-with-longstanding-u-s-policy-on-use-of-nuclear-weapons-amid-pressure-from-allies-11648176849>.

¹⁹⁵ U.S. Department of Defense, “Fact Sheet: 2022 Nuclear Posture Review and Missile Defense Review,” March 29, 2022, available at <https://media.defense.gov/2022/Mar/29/2002965339/-1/-1/1/FACT-SHEET-2022-NUCLEAR-POSTURE-REVIEW-AND-MISSILE-DEFENSE-REVIEW.PDF>.

¹⁹⁶ For example, in 2015, the U.S. Army organized a military vehicle tour through countries of Eastern and Central Europe. The tour was a success, and many citizens came out in support of the U.S. military. See for example Daisy Sindelar, “U.S. Convoy: In Czech Republic, Real-Life Supporters Outnumber Virtual Opponents,” *Radio Free Europe/Radio Liberty*, March

to Latvia, the first visit of a Secretary of Defense to Latvia since 1995, was interpreted in this light.¹⁹⁷ The United States also ought to continue hosting allied visits to U.S. nuclear facilities and bases. Such visits would contribute to the development and expansion of nuclear policy expertise among allies.

The United States can expand strategic dialogues, particularly with countries like Poland and the Baltics. The purpose would be to better equip their governments “to communicate that the United States is operating its nuclear weapons ethically and responsibly,” as Beatrice Heuser pointed out.¹⁹⁸ According to Bruno Tertrais, “The United States is not doing bad regarding extended deterrence overall, but events like the way it withdrew from Afghanistan and failed to enforce its red line in Syria impact U.S. credibility.”¹⁹⁹ U.S. credibility is a critical component of allied assurance that must be preserved.

U.S. Extended Deterrence and Assurance Guarantees in the Indo-Pacific Region

Currently, there are five nuclear powers geographically located in the Indo-Pacific region: China, India, North Korea, Pakistan, and Russia. China’s rise, North Korea’s nuclear capabilities, and their respective revisionist goals are the most problematic for U.S. extended deterrence and assurance. Without the United States extending deterrence and assuring allies, the military balance is distinctly in favor of authoritarian states. The lack of a U.S. presence in the region would likely strengthen proliferation pressures among other local democracies.²⁰⁰ Australia’s Deputy Prime Minister and Minister of Defense Richard Marles recently stated that “in the years ahead, the U.S.-Australia alliance will not only have to operate in a much more challenging strategic environment in the Indo-Pacific, it will need to contribute to a more effective balance of military power aimed at avoiding a catastrophic failure of deterrence.”²⁰¹ Distance plays an important role in shaping allied perceptions of their security and consequently of their assurance needs. Unlike in Europe, allies in the Indo-Pacific are separated by thousands of miles of water, giving a whole new meaning to the term “tyranny of distance.” While U.S. conventional forces are an important element of allied assurance, this geographical distance compounds the logistical challenges for the United States to pre-position and deploy conventional forces to the theater.

There are some indications that U.S. assurances in the region are already under strain. Washington’s de-emphasis of nuclear weapons in its national security strategy overtime

30, 2015, available at <https://www.rferl.org/a/us-convoy-czech-republic-supporters-virtual-opponents/26928346.html>. Source of the quote: Zoom interview conducted on July 25, 2022.

¹⁹⁷ Lolita Baldor, “Austin pledges military training, support for Baltics,” op. cit.

¹⁹⁸ Telephone interview conducted July 6, 2022.

¹⁹⁹ Zoom interview conducted on July 28, 2022.

²⁰⁰ Rod Lyon, “Nuclear strategy in a changing world,” *Australian Strategic Policy Institute*, October 1, 2019, p. 44.

²⁰¹ Richard Marles, “The U.S.-Australia Alliance: Aligning Priorities in the Indo-Pacific with Deputy Prime Minister Richard Marles,” *Transcript*, Center for International and Strategic Studies, July 11, 2022, p. 8, available at https://csis-website-prod.s3.amazonaws.com/s3fs-public/event/220712_Marles_Australia_Alliance.pdf?2tnZtCRcvQWT00Ym57m18YSxlz17YjG2.

contributed to renewed debates in Japan and South Korea about possessing an independent nuclear deterrent.²⁰² For example, in 2017, Shigeru Ishiba, former Japanese defense minister, said that “Japan should have the technology to build a nuclear weapon if it wants to do so.”²⁰³

Japanese Foreign Minister Taro Kono, praised the 2018 *NPR*, its commitment to extended deterrence and recognition of the deteriorating national security environment, stating that “Japan shares with the U.S. the same recognition of such severe security environment.”²⁰⁴ Regarding U.S. extended deterrence and assurance in Japan, Sugio Takahashi, Head of the Defense Policy Division of the Policy Studies Department at the National Institute for Defense Studies in Tokyo, Japan, stated, “The current situation is not ideal. We need to develop our resources, but it is fixable.”²⁰⁵

Rep. Chung Mong-joon, former leader of South Korea's ruling Saenuri Party, suggested in 2013 that Seoul should consider withdrawing from the Nuclear Nonproliferation Treaty to counter North Korea's military threats.²⁰⁶ South Korean lawmakers at times have called for a redeployment of U.S. tactical nuclear weapons that were withdrawn from the Peninsula in 1991.²⁰⁷ Due to North Korea's aggressive nature and threats to South Korea, 71 percent of South Koreans support a “domestic nuclear weapons program.”²⁰⁸ Song Min-soon, South Korea's former foreign minister, argued that “It's necessary for South Korea to move on to a self-reliant alliance from a dependent alliance,” and that “a defensive nuclear capacity, with a missile range limited to the Korean Peninsula” was “justified.”²⁰⁹ Some regional commentators appear to believe that “if extended deterrence is to succeed, the U.S. must immediately retaliate against an enemy with its own nukes.”²¹⁰

Nuclear weapons remain a centerpiece of extended deterrence and allied assurance in the region. Some experts argue that U.S. ballistic missile defense and conventional prompt

²⁰² Benjamin Schreer, “China's Development of a More Secure Nuclear Second-Strike Capability: Implications for Chinese Behavior and U.S. Extended Deterrence,” *Asia Policy*, No. 19, January 2015, p. 19, available at https://ad-aspi.s3.amazonaws.com/2017-07/Approaching-Critical-Mass_RT_advance_release.pdf?VersionId=UV.e0ylF8PTt5lhEcHsP7ladnbHZMslL.

²⁰³ “Japan Should Be Able to Build Nuclear Weapons: Ex-LDP Secretary-General Ishiba,” *The Japan Times*, November 6, 2017, available at <https://www.japantimes.co.jp/news/2017/11/06/national/japan-able-build-nuclear-weapons-ex-ldp-secretary-general-ishiba/>.

²⁰⁴ Ministry of Foreign Affairs of Japan, *The Release of the U.S. Nuclear Posture Review (NPR) Statement by Foreign Minister Taro Kono*, February 3, 2018, available at https://www.mofa.go.jp/press/release/press4e_001893.html.

²⁰⁵ Zoom interview conducted on August 9, 2022.

²⁰⁶ “S. Korean Lawmaker Calls for Seoul's NPT Withdrawal,” *Yonhap News Agency*, April 10, 2013, available at <https://en.yna.co.kr/view/PYH20130410003000341>.

²⁰⁷ “Lawmaker Calls for Redeployment of U.S. Tactical Nukes,” *Yonhap News Agency*, April 11, 2013, available at <https://en.yna.co.kr/view/PYH20130411018900341>.

²⁰⁸ Toby Dalton, Karl Friedhoff, and Lami Kim, “Thinking Nuclear: South Korean Attitudes on Nuclear Weapons,” *Chicago Council on Foreign Affairs*, February 2022, available at <https://www.thechicagocouncil.org/sites/default/files/2022-02/Korea%20Nuclear%20Report%20PDF.pdf>.

²⁰⁹ Jesse Johnson, “South Korea Developing Its Own Nukes One Solution to U.S. Cost-Sharing Demands, Ex-Top Diplomat Says,” *The Japan Times*, November 12, 2019, available at <https://www.japantimes.co.jp/news/2019/11/12/asia-pacific/nuclear-weapons-cost-sharing-south-korea/>.

²¹⁰ Kim Min-seok, “Would United States risk New York to protect Seoul?,” *op. cit.*

global strike weapons are insufficient for assurance.²¹¹ Others see the reduction in the U.S. nonstrategic nuclear weapons arsenal since the end of the Cold War as an expression of decreasing U.S. interest in forward-deploying nuclear weapons and, hence, in allied assurance.²¹²

Alliance dynamics in the region are further complicated by the fact that two U.S. allies, Japan and South Korea, have historical animosities that impede their mutual cooperation. For example, in a 2019 survey, more South Koreans would back North Korea than Japan in a war with Japan.²¹³ A majority see Japan as a military threat, according to another poll.²¹⁴ This “brittle” alliance structure means that should U.S. nonproliferation policies fail and one country were to develop a nuclear weapon, others would feel a stronger push to follow.²¹⁵ It also makes alliance management and policy coordination more difficult and increases the importance of an American presence in the region to help calm down and overcome these historical animosities.

Russia’s War in Ukraine. The United States would be wrong to assume that its allies in the Indo-Pacific region are not paying attention to U.S. actions in Ukraine. For allies in the Indo-Pacific, the lesson of Ukraine appears to be that the United States will be reluctant to involve itself in a conflict directly with China unless an ally is protected by something akin to NATO’s Article V. Rod Lyon, Senior Fellow at the Australian Strategic Policy Institute, pointed out that “Some Western powers appear self-deterred in Ukraine.”²¹⁶

Russia’s mockery of guarantees it provided in the 1994 Budapest Memorandum, including respecting “the independence and sovereignty and the existing borders of Ukraine,” and the “obligation to refrain from the threat or use of force against the territorial integrity or political independence of Ukraine,” coupled with U.S. apparent self-restraint with regard to helping Ukraine after Russia’s invasion, contributed to some allied experts questioning the credibility of the U.S. commitment to their country’s security in the case of a potential conflict with China, even as the United States supports Ukraine materially and diplomatically.²¹⁷ The implication is that allied countries must develop their own capabilities to resist long enough to deny China an opportunity for a *fait accompli*. The potential for questioning U.S. assurance commitments is clearly present. Professor Nomubasa Akiyama of the Hitotsubashi University described the situation in a following manner: “Ukrainian

²¹¹ Ibid.

²¹² Rod Lyon, “The Challenges Confronting US Extended Nuclear Assurance in Asia,” op. cit., p. 936.

²¹³ Jesse Johnson, “Nearly half of South Koreans would back North in war with Japan, while 40% 'have no idea',” *The Japan Times*, November 8, 2019, available at <https://www.japantimes.co.jp/news/2019/11/08/national/politics-diplomacy/nearly-half-south-koreans-back-north-vs-japan/>.

²¹⁴ “Nearly 60% of South Koreans view Japan as military threat: joint survey,” *The Japan Times*, May 29, 2015, available at <https://www.japantimes.co.jp/news/2015/05/29/national/nearly-60-of-south-koreans-view-japan-as-military-threat-joint-survey/>.

²¹⁵ Rod Lyon, “The Challenges Confronting US Extended Nuclear Assurance in Asia,” op. cit., pp. 936-937.

²¹⁶ Zoom interview conducted on July 12, 2022.

²¹⁷ United Nations, *Memorandum on security assurances in connection with Ukraine’s accession to the Treaty on the Non-Proliferation of Nuclear Weapons*, Vol. 3007, No. 52241, December 5, 1994, pp. 169-170, available at <https://treaties.un.org/doc/Publication/UNTS/Volume%203007/Part/volume-3007-I-52241.pdf>.

resilience (and capability building) is a cause for international support. This illustrates the need for Japan to build up its own forces and will to defend itself.”²¹⁸ For Japan, it would mean being more proactive and aggressive in terms of developing defensive forces.

Underscoring the complex multipolar dynamic, allied countries are aware that China is closely following U.S. actions and that Russia’s woes in Ukraine could lead to closer coordination between the two revisionist countries. “China’s cooperation with Russia is a problem, from joint military exercises to Russia giving China military technology. It means a future potential fight with China will be more difficult,” argues Professor Paul Dibb, Emeritus Professor at the Strategic and Defense Studies Centre of the School of International, Political and Strategic Studies at the Australian National University, and former Director, Defense Intelligence Organization.²¹⁹ The discussion on how much two countries will cooperate is not settled as other experts debate how extensive this cooperation will be and whether it will end up strengthening or weakening China.²²⁰

Conventional Forces. Perhaps nowhere is the concern over U.S. credibility in the Indo-Pacific region as palpable as when it comes to the geopolitical implications of Russia’s war for the U.S. ability to resource and deploy needed conventional forces to two theaters simultaneously. Allies in Europe and in the Indo-Pacific share a concern over the perceived U.S. inability to do so, albeit on a slightly different timeline. European allies feel confident that the United States will not abandon the region for the time being, a consequence of Russia’s invasion of Ukraine. But they understand that a Putin victory in Ukraine would have devastating consequences for extended deterrence and assurance in the region and are aware of the tradeoffs and difficult decisions involved in prioritizing one theater over another.

Sugio Takahashi pointed out that “There is an inter-regional competition over U.S. attention and assets; the conflict in Ukraine is draining resources but [preventing] the success of Putin is important for deterrence. But if the United States spends too many resources without replenishing its capabilities, deterrence in the region will be undermined.”²²¹ Perhaps cooperation among allies in different geographical regions would help to mitigate the challenge. “Allies in the two theaters should do more but also find ways to cooperate together,” Nomubasa Akiyama noted.²²²

Given the large distances among allies in the region, it is clear that any potential conflict with China would initially be fought with forces that are already deployed to the area. Allies do not have an option to bring in weapons from geographically distant areas relatively freely amid active hostilities, unlike what is happening in Ukraine.²²³ In a “hot” conflict with China,

²¹⁸ Zoom interview conducted on August 10, 2022.

²¹⁹ Zoom interview conducted on July 20, 2022.

²²⁰ “Will China and Russia Stay Aligned?” *Foreign Affairs*, June 21, 2022, available at <https://www.foreignaffairs.com/ask-the-experts/2022-06-21/will-china-and-russia-stay-aligned>.

²²¹ Zoom interview conducted on August 9, 2022.

²²² Zoom interview conducted on August 10, 2022.

²²³ See Franklin Miller’s contributions in *Journal of Politics and Strategy*, Vol. 2, No. 3 (August 2022), p. 116, available at <https://nipp.org/wp-content/uploads/2022/08/Proceedings-4.22.pdf>.

resupply routes are not going to be readily available without assuming risks to U.S. and allied operating platforms.²²⁴ That means not only that the United States should preposition weapons forward as much as possible but also that allies should develop their own capabilities to resist as long as necessary to have time to muster the international support to counter the aggressor.

At the same time, the United States may currently face political difficulties in increasing its land-based deployments in Japan and Australia. “Hosting military capabilities might be politically problematic for the Japanese. The trend is toward reducing U.S. military presence. This could make sea-based strike capabilities a more attractive option,” Nomubasa Akiyama said.²²⁵

Nuclear Weapons Capabilities. Because allies in Asia ultimately rely on U.S. strategic weapons for extended deterrence, the modernization of U.S. strategic nuclear systems is an essential component of the credibility of U.S. assurance guarantees and extended deterrence.²²⁶ Several interviewees mentioned the importance of bipartisan support for U.S. nuclear weapons modernization. Countries like Japan follow the U.S. domestic debate on the issue very closely and many foreign experts are exasperated by what they perceive as the increasing partisanship and politicization of these issues in Washington.

Debates in allied countries in Asia make clear that they are interested in the deployment of a “tolerable minimum” number of nuclear weapons that can extend deterrence and assure them, rather than a robust presence that may appear “to be principally about swaggering.”²²⁷ This is particularly the case with Australia. Rather than wishing for a larger U.S. military presence as is common in European countries, the “U.S. presence in Australia is an expression of Australia’s political support for and contribution to regional security; it is not primarily for Australia’s defense. Australian fears often are more about entrapment than abandonment,” according to Professor Stephan Frühling, the Acting Head of the Strategic and Defence Studies Centre at The Australian National University.²²⁸

Australia does not host a significant number of U.S. military forces relative to two other allies in the region but is part of the Five Eyes (FVEY) intelligence sharing alliance, which provides a foundation on which other strategic dialogues with the United States can build. Some interviewees argued that such dialogues are overdue given increasing coordination between the two countries. Holding substantive dialogues appears to be a relatively easy way to contribute to allied assurance.

In a reference to the U.S. debate about the desirability of a nuclear sea-launched cruise missile (SLCM-N) program, a few interviewees expressed dismay over the inconsistency of U.S. nuclear modernization plans when one administration presents a sound rationale for pursuit of a capability only to have the decision cancelled by the next administration.

²²⁴ Ibid.

²²⁵ Zoom interview conducted on August 10, 2022.

²²⁶ Rod Lyon, “A Shifting Asian Nuclear Order,” Special Report, *Australian Strategic Policy Institute*, 2016, p. 24.

²²⁷ Rod Lyon, “The Challenges Confronting US Extended Nuclear Assurance in Asia,” op. cit., p. 936.

²²⁸ Zoom interview conducted on July 11, 2022.

Consistency in words and deeds is a part of allied assurance and large changes from one administration to the next may undermine it. “Lack of consistency in U.S. strategy is a problem. It undermines extended deterrence, and it could undermine assurance too,” Sugio Takahashi noted.²²⁹

The SLCM-N is particularly important according to allies in this region because of the difficulties associated with operating dual-capable aircraft due to the range and geographical distances involved, lack of U.S. forward-deployed nuclear weapons, and the retirement of the nuclear-armed Tomahawk Land-Attack Missile (TLAM-N), which was seen at the time the only practical non-strategic nuclear option for the theater. As Sugio Takahashi pointed out, “Aviation is not a credible option for this region for strengthening assurance and extending deterrence.”²³⁰ For these reasons, the United States should retain the low yield version of the W76-2 warhead. According to Rod Lyon, these warheads “are incredibly important for extended deterrence and are the only practical option for rapid forward deployment.”²³¹

Several interviewees were concerned about the disparity between the United States and China in short- and intermediate-range nuclear force levels and saw the low-yield warhead and SLCM-N as important future programs to help to address the gap. This, of course, does not need to be done on a one-for-one basis. According to Nomubasa Akiyama, “We have to recover from inferiority at the tactical level, but, realistically, we have to do this asymmetrically. It means that we have to be the game changer, rather than the Chinese nuclear build up, if we aim at not accepting China’s superiority at a tactical and strategic level, which is vital to the alliance.”²³² Sugio Takahashi was direct in his assessment: “The size of the U.S. [theater nuclear] arsenal should be expanded,” he argued.²³³ China reaching strategic parity with the United States would mean that “the United States would need viable theater nuclear forces, for example the sea-launched cruise missile.”²³⁴

In general, allied experts agree that it is not necessary to deploy U.S. nuclear weapons to South Korea, Japan, or Australia at this time. “U.S. extended deterrence is the only viable option for Japan under the current political and strategic environment. It would not be strategically sustainable to develop its own nuclear weapons. NATO-like sharing arrangements are not an option yet,” stated Nomubasa Akiyama.²³⁵ Interviewees by and large agreed, however, that the United States ought to consider expanding bilateral consultations and explore the option to forward deploy nuclear weapons. It would be better to discuss the issue now rather than amid a crisis. Many interviewees argued in favor of an expanded strategic dialogue to include discussions of U.S. nuclear force planning and principles, akin to NATO’s Nuclear Planning Group. “It is important for Japan and the United

²²⁹ Zoom interview conducted on August 9, 2022.

²³⁰ Ibid.

²³¹ Zoom interview conducted on July 12, 2022.

²³² Zoom interview conducted on August 10, 2022.

²³³ Zoom interview conducted on August 9, 2022.

²³⁴ Ibid.

²³⁵ Zoom interview conducted on August 10, 2022.

States to discuss joint targeting and planning, for both conventional and nuclear forces,” stated Sugio Takahashi.²³⁶

Missile Defense. The importance of missile defense came up repeatedly during the interviews. “Deterrence by denial is more acceptable to the public. Missile defenses are important for allied assurance and extended deterrence,” said Nomubasa Akiyama.²³⁷ He caveated his statement with a reminder of the Japanese public’s general resistance for ground deployments, including Aegis Ashore, although the sentiment may have changed since the last time this national discussion happened in Japan.

Declaratory Policy. The interviewees agreed that now is not the time to change U.S. declaratory policy to “sole purpose” or “no first use.” This was one of the issues on which all interviewees (in Europe and the Indo-Pacific) agreed. Changing U.S. declaratory policy now could undermine U.S. assurance and extended deterrence, would be seen as destabilizing and borderline reckless. Some interviewees left the door open to changing the declaratory policy in the future, under better international conditions.

As mentioned above, not much information about the Biden Administration’s *NPR* was public during the time when the interviews were conducted. Several interviewees expressed a desire for a clarification of terms like “integrated deterrence” and “fundamental purpose” publicly used to describe the *NPR*’s content.

Other Actions. The United States has not exhausted all opportunities to realize benefits stemming from allied cooperation. According to Stephan Frühling, “There are still synergies among allies that the United States can tap into, especially the Quad, exercises with India, and facilitating closer links between Japan and Australia.”²³⁸

Some of the interviewees mentioned that the United States should not have delayed the Minuteman III intercontinental-ballistic missile tests as the Biden Administration did in March and then again in early August.²³⁹ Regarding the March cancellation, the Administration argued it has “no interest in escalating the tensions” by proceeding with the test, despite the lack of evidence that the previously scheduled, routine, and properly announced tests were escalatory in any way.²⁴⁰

According to some allied experts, the United States needs to move beyond theoretical discussions of deterrence to operationalizing what it means for the Australian forces in practical terms. Stephan Frühling stated that “Thinking about extended deterrence has to be rejuvenated and built anew. There is not much of a demand signal on Australia’s side. Even after the Force Posture Initiative, the country was not interested in a strategic deterrence

²³⁶ Zoom interview conducted on August 9, 2022.

²³⁷ Zoom interview conducted on August 10, 2022.

²³⁸ Zoom interview conducted on July 11, 2022.

²³⁹ The test finally happened on August 16, 2022. See Scott Wakefield, “AFGSC’s most recent Minuteman III test occurs on historic date,” *377 Air Base Wing Public Affairs*, August 17, 2022, available at <https://www.afgsc.af.mil/News/Article-Display/Article/3132112/afgscs-most-recent-minuteman-iii-test-occurs-on-historic-date/>.

²⁴⁰ Eric Edelman and Franklin Miller, “Understanding That Weakness Is Provocative Is Deterrence 101,” *The Dispatch*, August 8, 2022, available at <https://thedispatch.com/p/understanding-that-weakness-is-provocative>.

dialogue with the United States.”²⁴¹ “These days, nuclear deterrence education is starting from scratch in Australia,” observed Paul Dibb.²⁴² There is a desire for expanding the strategic dialogue with the United States in Japan, too. According to Nomubasa Akiyama, “The United States and Japan should develop a platform for strategic planning before contingencies happen.”²⁴³ “It is important for Japan and the United States to discuss joint targeting and planning, for both conventional and nuclear forces,” said Sugio Takahashi.²⁴⁴ But “the ongoing extended deterrence dialogue must be supplemented by discussions about joint planning and necessitates coordination on arms control and disarmament between Japan and the United States to shape strategic competition with China diplomatically,” according to Nomubasa Akiyama.²⁴⁵

According to some of the interviewees, the United States needs a better public relations strategy to communicate the importance of extended deterrence and assurance guarantees. As Jacek Durkalec observed, “The United States had [a] ‘second to none’ [policy] during the Cold War. The United States needs a declaratory message to adversaries and allies that it has resolve and capabilities to deter, and if necessary, impose unacceptable cost against any combination of nuclear adversaries, including in the scenarios of opportunistic aggression and their close alliance.”²⁴⁶

Conclusion

So far, there do not appear to be significant gaps in allied perceptions of U.S. extended deterrence and assurance commitments and the U.S. ability to fulfill them, but problems are lurking just below the surface; occasionally bubbling up to the consternation of the United States and allies alike. The interviewed experts underscored the importance of U.S. nuclear capabilities that are potentially contentious in the United States. Going forward, the United States and its allies will have to work harder than they have in the past to develop a shared understanding of what the rise of nuclear-armed revisionist powers means for their respective regions and jointly develop extended deterrence and assurance strategies to counter them.

²⁴¹ Zoom interview conducted on July 11, 2022.

²⁴² Zoom interview conducted on July 20, 2022.

²⁴³ Zoom interview conducted on August 10, 2022.

²⁴⁴ Zoom interview conducted on August 9, 2022.

²⁴⁵ Zoom interview conducted on August 10, 2022.

²⁴⁶ Zoom interview conducted on August 4, 2022.

RECOMMENDATIONS

Communicating resolve, assurance, and deterrence will become more complex in a multipolar environment. Whatever strategies allies and friends favor, the objective will be the same: to convince an adversary that the prospective costs of aggression outweigh potential gains. U.S. and allied signals and communication will be closely monitored not just by the intended recipient but also by adversaries and allies in other parts of the world.

The United States would do well to remember that “Usually the most convincing way to look willing is to be willing.”²⁴⁷ Currently, the United States faces several emerging capability gaps that may make it look less willing than it otherwise should be for deterrence and assurance purposes; chief among them are insufficient conventional forces able to sustain two simultaneous engagements in geographically separate regions, insufficient missile defense capabilities, and too great asymmetries in short- and intermediate-range nuclear forces. The following recommendations can help the United States chart a path to success in an increasingly challenging endeavor of assuring allies and extending deterrence.

Expand Nuclear Policy Consultations. In order to understand U.S. allies’ and assurance needs in as much detail as possible, the United States ought to expand ongoing deterrence and assurance dialogues. These dialogues would serve several purposes: one, they would keep the United States apprised of its allies’ needs and perceptions, and help develop understandings of their assurance requirements. Two, they would help to develop a cadre of professionals that would be well-versed in nuclear deterrence issues and the nuances of nuclear weapons policies. These professionals would then be better able to communicate issues within their respective governments, allowing the governments more effectively to communicate with their electorates in ways that would increase citizen resilience to manipulation and foreign interference regarding nuclear policy topics. The Czech Republic’s debate about a U.S. radar deployment in the 2006-2009 timeframe illustrates some of the difficulties of communicating complex national security issues to publics in an ad hoc manner.²⁴⁸ Three, through the dialogues, allies would contribute toward developing joint and hopefully better informed “strategic profiles” of adversaries.

Continue Nuclear Weapons Modernization. Even though few allied countries have a detailed understanding of U.S. nuclear weapons programs or the infrastructure that supports them, many consider ongoing U.S. nuclear weapons modernization important for both extended deterrence and allied assurance. They worry about inconsistency in the signals that the United States sends by initiating programs and providing good arguments in their support only to cancel them when the next presidential administration is elected.

Continue to Develop Missile Defense Capabilities. The United States ought to continue to develop its missile defense capabilities. While missile defenses will not supplant nuclear

²⁴⁷ Herman Kahn, *On Thermonuclear War* (Princeton, NJ: Princeton University Press, 1960), pp. 213-214.

²⁴⁸ Michaela Dodge, “Russia’s Influence Operations in the Czech Republic, Poland, and Romania,” op. cit., pp. 11-30.

deterrence and assurance anytime soon, they are nevertheless an important component of allied assurance. This applies both to homeland and regional missile defense systems.

Do Not Change U.S. Declaratory Policy. By potentially changing U.S. nuclear declaratory policy to reflect “sole purpose” or “no first use,” especially amid Russia’s brutal war in Ukraine, the United States would risk being seen as irresolute by adversaries and alienating allies. Adversaries could interpret the change as proof the United States was deterred by their actions, while allies could interpret this as the United States not being willing to accept the risk of its commitments to them, undermining U.S. extended deterrence and assurance goals (and potentially U.S. nonproliferation goals). Maintaining the status quo (i.e., a measure of ambiguity with regard to the timing and scope of U.S. nuclear use) in U.S. declaratory policy will help in this regard.

Maintain Sufficient Conventional Capabilities and a Robust Production Base. The U.S. Department of Defense has felt the pressure of decreasing resources for recapitalization and modernization. Maintaining sufficient forces that can be deployed to Europe without compromising the U.S. posture in Asia (and in reverse) will continue to be important for assurance and extended deterrence. The United States should have the capacity to forward deploy additional forces in both theaters simultaneously if the security situations deteriorate. The war in Ukraine highlights the difficulties of supplying a partner nation in the middle of a conflict and the importance of prepositioning systems to the theater beforehand. It also underscores the need for maintaining a healthy and responsive defense industrial base.

Do Not Forget that Allies Are Assured by a Range of Activities. Extended deterrence and assurance guarantees are not generated by just military capabilities but encompass a range of actions from nominating ambassadors in a timely manner, to high-level visits, to joint military exercises, professional exchanges, and public messaging coordination. The United States ought to take advantage of all the tools at its disposal to maximize synergies inherent in coordinating supportive activities well.

Nurture the Development of Nuclear Policy Expertise Among Allies. The United States must nurture and develop nuclear policy expertise among its allies. Continued bilateral and multilateral discussions and strategic dialogues are one way of doing so. Facilitating and supporting expert visits to nuclear sites and bases that host nuclear weapon systems is another way of developing policy expertise. This requires allies willing to invest resources and manpower in the endeavor; the United States cannot accomplish this task on its own.

Revitalize the U.S. Nuclear Warhead Production Complex. The United States must build a flexible and resilient nuclear warhead infrastructure. Such was a (largely unfulfilled) objective of all administrations since the end of the Cold War. With China rapidly increasing the size of its strategic nuclear arsenal and Russia developing a suite of systems unregulated by any arms control treaties, this requirement is becoming more pressing. While few experts in allied states pay attention to the status of the U.S. nuclear infrastructure, it is inseparable

from judging the credibility of extended deterrence and assurance guarantees. A warhead issue the United States cannot address in a timely manner could undermine allied belief in the U.S. ability to respond to negative trends in the security environment quickly and thereby degrade the credibility of U.S. commitments to allied security.

Abrogate the NATO-Russia Founding Act. Russia's aggression in Ukraine and coercive nuclear threats to NATO members are inconsistent with the Act. The United States empirically knows the valuable, stabilizing, and reassuring effects its permanent military presence has on allies. It also can be cheaper than a rotational presence. Yet, the Act currently precludes it, even as Russia aggressively undermines the stability of the European security order. In light of Russia's actions, the United States and NATO should not be bound by an agreement that the other side so ignores.

Develop U.S. Regional Expertise and Understanding of Adversaries and Allies. The United States must continue to develop regional expertise to foster an understanding of domestic politics in allied countries, an endeavor that took somewhat of a back seat amid the its focus on terrorism and counterinsurgency operations in the past years.

Conclusion

Implementing these steps would go a long way to extending deterrence and strengthening the credibility of the U.S. commitment to allied security in a multipolar environment. Russia's brutal invasion of Ukraine has led to unprecedented increases in European defense budgets and renewed commitments to transatlantic security. But it has also made clear that there are emerging deterrence gaps in the current U.S. and allied force postures. According to Admiral Richard, "The war in Ukraine and China's nuclear trajectory — their strategic breakout — demonstrates that we have a deterrence and assurance gap based on the threat of limited nuclear employment."²⁴⁹ This observation is particularly relevant for regional scenarios involving U.S. allies in which asymmetries between U.S. and adversaries' short- and intermediate-range nuclear arsenals are the largest and most concerning.

According to the interviewees, the United States has done a good enough job for extended deterrence and assurance to this point. No allies are seriously pondering developing indigenous nuclear weapon programs, and proposals to make a separate peace with Russia and China at U.S. expense are still largely relegated to fringe parts of the political spectrum in allied countries. But challenges, uncertainties, and questions are emerging just below the surface. As they mount, the United States will have to work harder to extend deterrence and convince allies and adversaries of the credibility of its commitment to allied security. Such a process will require larger defense spending than what the United States has been willing to invest after the end of the Cold War, more focused consultations and strategic dialogues with

²⁴⁹ Bryant Harris, "U.S. nuclear commander warns of deterrence 'crisis' against Russia and China," *Defense News Online*, May 4, 2022, available at, <https://www.defensenews.com/pentagon/2022/05/04/us-nuclear-commander-warns-of-deterrence-crisis-against-russia-and-china/>.

allies, and potentially new nuclear weapons and missile defense capabilities in the future. It will also require a recapitalization of the U.S. nuclear weapons complex so that it truly would be flexible and resilient and provide the United States with an ability to respond to unforeseen challenges and problems on a reasonable timescale. These are no small tasks, but failing in them could entail immeasurable cost.

LIST OF INTERVIEWEES

The following individuals agreed to be listed among interviewees for this project. The views expressed by those interviewed are their personal views and may not be representative of the views of the institutions with which they are, or have been affiliated.

- Nobumasa Akiyama, Professor, Hitotsubashi University, Japan
- Paul Dibb, Emeritus Professor, Strategic and Defense Studies Centre, School of International, Political and Strategic Studies, Australian National University, College of Asia & the Pacific; former Deputy Secretary, Department of Defense; Director, Defense Intelligence Organization
- Jacek Durkalec, Defense Analyst
- Stephan Frühling, Professor, Strategic and Defence Studies Centre of the Australian National University
- Beatrice Heuser, Professor, University of Glasgow, UK
- Dominik Jankowski, Head of the Political Section, Permanent Delegation of Poland to NATO
- Rod Lyon, Program Director for Strategy, Australian Strategic Policy Institute of Canberra
- David Lonsdale, Senior Lecturer, War Studies, University of Hull, UK
- Shuji Maeda, Director, Japan-US Security Treaty Division, Ministry of Foreign Affairs
- Lukas Milevski, Assistant Professor, Leiden University, Netherlands
- Jan Ludvík, Assistant Professor Department of Security Studies, Charles University, Prague, Czech Republic
- Michael Rühle, Head, Climate and Energy Security Section, Emerging Security Challenges Division, NATO; former Senior Political Advisor, NATO Secretary General's Policy Planning Unit
- Geoffrey Sloan, Associate Professor, Department of Politics and International Relations, University of Reading, UK

- Michal Smetana, Associate Professor, Faculty of Social Sciences, Charles University, and Head of the Peace Research Center Prague, Czech Republic
- Petr Suchý, Vice-Dean, Internationalization and Student Affairs, Faculty of Social Studies, Masaryk University, Brno, Czech Republic
- Sugio Takahashi, Head of the Defense Policy Division of the Policy Studies Department, National Institute for Defense Studies, Japan
- Bruno Tertrais, Deputy Director, Foundation for Strategic Research (France)
- Karel Ulík, Permanent Delegation of the Czech Republic to NATO
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About the Author

Dr. Michaela Dodge is a Research Scholar at the National Institute for Public Policy. Before joining the National Institute, Dr. Dodge worked at The Heritage Foundation from 2010 to 2019. She took a leave of absence from Heritage to serve as Senator Jon Kyl's Senior Defense Policy Advisor from October to December 2018. Her last position at Heritage was as Research Fellow for Missile Defense and Nuclear Deterrence.

Dr. Dodge's work focuses on U.S. nuclear weapons and missile defense policy, nuclear forces modernization, deterrence and assurance, and arms control. She was a Publius Fellow at the Claremont Institute in 2011 and participated in the Center for Strategic and International Studies' PONI Nuclear Scholars Initiative. Her 2020 book *U.S.-Czech Missile Defense Cooperation: Alliance Politics in Action* details factors that contribute to ballistic missile defense cooperation between two states in the context of alliance cooperation, as well as Russia's influence operations.

Dr. Dodge received her Ph.D. from George Mason University in 2019. She earned a Master of Science in Defense and Strategic Studies from Missouri State University in 2011. At Missouri State, she was awarded the Ulrike Schumacher Memorial Scholarship for two years. In 2009, she received a bachelor's degree in international relations and defense and strategic studies from Masaryk University, the second-largest university in the Czech Republic.