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EDITOR'S NOTE

Welcome to the second issue of Volume 4 of National Institute's *Journal of Policy & Strategy*—a quarterly online peer-reviewed publication.

The “Analysis” section features five essays. Michaela Dodge examines trends in allied assurance given the rise of revisionist belligerent powers, including the effects of Russia's ongoing war against Ukraine and China's military buildup. Christopher Griffin elaborates on the challenge of deterrence from President Eisenhower's “New Look” to the present. Peppino DeBiaso and Robert Joseph offer recommendations for adapting U.S. homeland missile defense in a transformed security environment. Keith Payne argues that the United States and its allies have so far failed to make the hard choices that would allow them to overcome structural problems that undermine U.S. extended deterrence and assurance. Finally, David Trachtenberg makes the case that the United States should return to a “two-war” planning construct to reinforce extended deterrence and assurance.

The “Interviews” section focuses on the Indo-Pacific region. Rod Lyon, Senior Fellow—International Strategy at the Australian Strategic Policy Institute, discusses the value of extended deterrence and assurance for Australia. Donghyun Kim, International Broadcast Journalist working for the *Voice of America*, offers a South Korean perspective on the alliance with the United States in the context of increasing regional threats.

The “Proceedings” section contains participant remarks from two National Institute webinars, one titled “Lessons Learned from the Israel-Hamas Conflict and Implications for Deterrence” from January 2024, and the other, “NATO at 75: Up to the Challenge?” from March 2024. Both are highly relevant to contemporary discussions.

The “Literature Review” offers an examination of four recently published works in the field: *Our Enemies Shall Vanish* by Yaroslav Trofimov (reviewed by Michaela Dodge); the State Department's International Security Advisory Board's *Report on Deterrence in a World of Nuclear Multipolarity* (reviewed by David J. Trachtenberg); *Unraveling the Gray Area Problem: The United States and the INF Treaty* by Luke Griffith (reviewed by Matthew R. Costlow); and *Deterrence Gap: Avoiding War in the Taiwan Strait* by Jared M. McKinney and Peter Harris (reviewed by Jennifer Bradley).

The “Documentation Section” offers select excerpts from U.S. Strategic Command Commander General Anthony Cotton's testimony before the Senate Committee on Armed Services. The second document is select excerpts from United States Northern Command and North American Aerospace Defense Command Commander General Gregory M. Guillot's testimony before the U.S. Senate Committee on Armed Services. The third document contains excerpts from the United Kingdom's Defense Nuclear Enterprise's report, *Delivering the UK's Nuclear Deterrent as a National Endeavour Presented to Parliament by the Secretary of State for Defence by Command of His Majesty*, which elaborates on the British plans for keeping the British nuclear deterrent viable in the future.

The issue concludes with the “From the Archive” section, which presents the Executive Summary from Keith B. Payne's (Study Director) and John S. Foster Jr.'s (Chairman, Senior Review Group) 2014 study titled *Nuclear Force Adaptability for Deterrence and Assurance: A Prudent Alternative to Minimum Deterrence*.

The editors hope readers will find this collection of works useful and enlightening. Our goal, as always, is that every issue of the *Journal of Policy & Strategy* is valuable and worth the read.





ANALYSIS

TRENDS IN ALLIED ASSURANCE: CHALLENGES AND QUESTIONS

Michaela Dodge

“In some ways, the worst thing that happened to America was the hubris that it could think ‘we won the Cold War and Russia is no longer an adversary.’”

*Paul Dibb, Emeritus Professor
Australian National University¹*

The United States generates capabilities to influence adversaries’ and allies’ decisions regarding whether they are deterred and assured respectively. In this sense, extended deterrence, like allied assurance, are in the eye of the beholder. This article examines trends in allied assurance from the perspective of experts in allied countries in Australia, Japan, the Republic of Korea (ROK), and some North Atlantic Treaty Organization (NATO) member states that were interviewed for the purposes of this study.² Despite U.S. allies facing serious diverse challenges to their national security, the interviews revealed common threads of agreement on how the United States can increase the likelihood that its allies remain assured. They include improving allied communication, modernizing U.S. nuclear and conventional forces, and rebuilding capacity to be a serious contender in two simultaneous regional contingencies. The interviews also revealed troubling trends that have the potential to disrupt U.S. alliance structures should the United States fail to attend to allied concerns in a timely manner, including whether U.S. forces are sufficiently postured to fight wars in defense of allies in two regions, whether it can maintain a domestic consensus that alliances are beneficial and U.S. global engagement worth it, and whether it will stand firm to support Ukraine or be deterred by Russia’s coercive nuclear threats. U.S. allies’ actions also make clear that there is intra-alliance disagreement, both regional and within NATO, regarding the seriousness of threats allies are facing, introducing an additional layer of complexity.

The Perennial Concerns over the Credibility of U.S. Extended Deterrence

After Russia’s February 2022 invasion of Ukraine, questions related to U.S. allied assurance gained increased salience, not just in Europe, but also in the Indo-Pacific region. Growing concern over U.S. willingness to intervene in support of an ally was apparent among many experts interviewed for the purposes of this study. The United States was one of the

¹ Zoom interview with Paul Dibb, February 1, 2024.

² This article is based on interviews with more than a dozen national security experts knowledgeable on nuclear weapons policy, extended deterrence, and allied assurance. The interviews were conducted remotely between December 2023 and February 2024. The list of some of the interviewed experts can be found in the appendix, others chose to conduct interviews under the Chatham House rules.



guarantor states of Ukraine's sovereignty and territorial integrity in the 1994 Budapest Memorandum.³ In the document, Ukraine acceded to the Non-Proliferation Treaty and gave up nuclear weapons on its territory in exchange for a pledge that its independence, sovereignty, and existing borders would be respected.⁴ Since then, Ukraine's Foreign Minister Dmitro Kuleba indicated it was a mistake for Ukraine to agree to the Memorandum⁵, and former President Bill Clinton said he regretted his role in making Ukraine give up nuclear weapons.⁶

Even though U.S. guarantees to Ukraine are comparatively weaker than treaty obligations made to U.S. allies, countries are closely observing the dynamic of U.S. help to Ukraine. The conflict is somewhat of an indicator of the likelihood the United States would come to allies' defense. On one hand, Ukraine is not a formal ally; on the other, the conflict does not require U.S. direct involvement and therefore providing help should be easier politically than a conflict requiring "boots on the ground."

U.S. allies have always worried about the credibility of U.S. extended deterrence to one degree or another, particularly after the Soviet Union reached strategic parity with the United States in the 1970s.⁷ The United States invested significant resources in mitigating perceived gaps, including deploying hundreds of thousands of troops and thousands of nuclear warheads to Europe, the primary area of concern at the time. After the end of the Cold War, the West experienced a period of unquestioned U.S. leadership in a new world order, which many hoped would mark the end of nation-state conflict, large defense budgets, and nuclear competition. The defense capabilities that America spent decades building up were dismantled in a few years and the defense industrial base atrophied. The prospects for its reconstitution are bleak in the short-term, even if Russia's February 2022 invasion of Ukraine serves as a wake-up call.

Practically speaking, there is no viable alternative to the United States being the primary guarantor of allied security for the time being. That is why some allies concluded that questioning U.S. credibility publicly would be somewhat pointless and perhaps could even send the wrong message to adversaries and increase risks to NATO's frontline allies. NATO Secretary General Jens Stoltenberg stated that "The European Union cannot defend Europe.

³ The other two being the United Kingdom and, ironically, the Russian Federation.

⁴ *Memorandum on security assurances in connection with Ukraine's accession to the Treaty on the Non-Proliferation of Nuclear Weapons*. Budapest, December 5, 1994, available at <https://treaties.un.org/doc/Publication/UNTS/Volume%203007/Part/volume-3007-I-52241.pdf>.

⁵ Victor Morton, "Ukraine foreign minister: Giving up nuclear weapons wasn't smart," *The Washington Times*, February 22, 2022, available at <https://www.washingtontimes.com/news/2022/feb/22/dmytro-kuleba-ukraine-foreign-minister-giving-nucl/>.

⁶ Azmi Haroun and Erin Snodgrass, "Bill Clinton says he feels 'terrible' for pushing a 1994 agreement with Russia that resulted in Ukraine giving up its nuclear weapons," *Business Insider*, April 4, 2023, available at <https://www.businessinsider.com/bill-clinton-feels-terrible-convincing-ukraine-to-give-up-nukes-2023-4>.

⁷ David J. Trachtenberg, Michaela Dodge and Keith B. Payne, *The "Action-Reaction" Arms Race Narrative vs. Historical Realities* (Fairfax, VA: National Institute Press, 2021), pp. 31-38, available at <https://nipp.org/wp-content/uploads/2021/04/Action-Reaction-pub.pdf>.

Eighty percent of NATO's defence expenditures come from non-EU NATO allies.”⁸ Allies would have to spend much more on defense than they currently are to achieve a similar degree of capability, even accounting for additional investments since February 2022. It would take significant time and effort to develop key conventional enablers, e.g. airlift, that the United States currently provides. Allies could develop their own nuclear capabilities, a prospect discussed more often today than ten or so years ago; but that option is fraught with its own political, diplomatic, and fiscal difficulties. Lastly, they could collaborate with adversaries, an option perhaps most damaging to U.S. interests. Hungary and Slovakia appear to be choosing this route with Russia (and China), potentially creating difficulties for NATO, which customarily operates by unanimous consensus agreement.⁹

Openly questioning U.S. commitments warrants rather unpleasant follow up questions. If the United States cannot credibly guarantee allied security, which other country (or combination of countries) could do so? The alternatives entail large costs that the publics are unlikely to support. Striking a separate deal with an adversary has all the markings of a future disaster and is unlikely to be supported by the publics either, although the pro-Russian shift in Hungary and Slovakia shows a concerning degree of plausibility regarding this scenario. Germany, with its years of pursuing cooperative policy toward Russia, has learned the hard way that ill-advised attempts at reconciliation bring more discord when strategic objectives and perceptions are fundamentally at odds, even opening one to massive intelligence penetration.¹⁰ That Germany is not applying this hard-obtained knowledge to its relations with China is a matter of significant concern to some other NATO countries, including the United States.

The nuclear aspect of allied assurance is not well understood among many allied politicians, even though, as then-U.S. Strategic Command Commander Admiral Charles Richard pointed out, “Every operational plan in the Department of Defense, and every other capability we have in DOD [Department of Defense], rests on the assumption that strategic deterrence, and in particular nuclear deterrence, ... is holding right.”¹¹ He further elaborated 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.”¹² Just like the United States, its allies, too, took a break from thinking about nuclear deterrence after the end of the

⁸ Sabine Siebold and John Irish, “NATO chief says Europe meeting spending targets after Trump comments,” *Reuters*, February 14, 2024, available at <https://www.reuters.com/world/nato-chief-says-18-countries-meet-2-military-spending-target-2024-02-14/>.

⁹ Eric S. Edelman, David Manning, and Franklin C. Miller, “NATO’s Decision Process Has an Achilles’ Heel,” *New Atlanticist*, March 12, 2024, available at <https://www.atlanticcouncil.org/blogs/new-atlanticist/natos-decision-process-has-an-achilles-heel/>.

¹⁰ An instructive example are Angela Merkel’s (and other German politicians’) efforts to further relations with Russia. See Matthew Karnitschnig, “Putin’s useful German idiots,” *Politico*, March 28, 2022, available at <https://www.politico.eu/article/putin-merkel-germany-scholz-foreign-policy-ukraine-war-invasion-nord-stream-2/>.

¹¹ Quoted in, Amy Hudson, “Richard Says Nuclear Deterrence Connected to All Other DOD Capabilities,” *Air Force Magazine*, May 7, 2021, available at <https://www.airandspaceforces.com/richard-says-nuclear-deterrence-connected-to-all-other-dod-capabilities/>.

¹² *Ibid.*

Cold War, and states that joined NATO since then did not have to think seriously about it until recently.

Many politicians in allied countries appear to take the credibility of nuclear deterrence for granted. They assume that nuclear deterrence is always there, working, and does not need to be thought of on an everyday basis. Perhaps these attitudes are a consequence of these countries not possessing nuclear weapon capabilities. According to Karel Ulík, member of a Permanent Delegation of the Czech Republic to NATO, non-nuclear allies implicitly trust that nuclear powers “know what they are doing with their nuclear weapons.”¹³ Rather than focusing their primary attention on nuclear guarantees, they are quick to point out the value of a steady U.S. conventional forward presence; permanent, if possible, rotational if need be, and, in the case of allies in Europe, from other NATO countries when the first two options are unavailable.

Perhaps there is a silver lining to so few politicians understanding the nuances of U.S. nuclear policy and the infrastructure that supports it. U.S. nuclear modernization might easily run into difficulties as defense budgets shrink and programs pick up the pace (and therefore consume more resources). The sorry state of a U.S. nuclear production complex that is anything but flexible and resilient, despite all *Nuclear Posture Reviews* committing administrations to making it so, should cause significant concerns for those relying on it as a part of deterrence. Perhaps allied politicians would not feel as assured if they wholly comprehended the serious problems that follow decades of neglect of the U.S. nuclear infrastructure.¹⁴

A few experts interviewed raised concerns about whether the United States will be able to sustain its nuclear weapons modernization program, which is “desperately”¹⁵ needed. They consider continued progress important. More specifically, they would not welcome the cancellation of the Sea-Launched Cruise Missile-Nuclear (SLCM-N) proposed by the Biden Administration.¹⁶ Other interviewees commented on a lack of diversity in U.S. nuclear arsenal given threat developments, particularly considering that nuclear deterrence is most likely to fail in a regional context. Rod Lyon, Program Director for Strategy, Australian Strategic Policy Institute of Canberra, stated that the United States “would seem to need not only more nuclear warheads, but more kinds of nuclear weapons, and—especially in the Indo-Pacific—more deployment options.”¹⁷ Sugio Takahashi, Head of the Defense Policy Division of the Policy Studies Department at the National Institute for Defense Studies in Japan, argued that “the United States should not abandon a goal of being close to the

¹³ Zoom interview with Karel Ulík, December 15, 2023.

¹⁴ The 2023 Strategic Posture Commission Report highlights some of them. See Madelyn Creedon and Jon Kyl, et al., *America's Strategic Posture* (Alexandria, VA: Institute for Defense Analyses, 2023), available at <https://armedservices.house.gov/sites/republicans.armedservices.house.gov/files/Strategic-Posture-Committee-Report-Final.pdf>.

¹⁵ Zoom interview with David Lonsdale, January 17, 2024.

¹⁶ Valerie Insinna, “Biden administration kills Trump-era nuclear cruise missile program,” *Breaking Defense*, March 28, 2022, available at <https://breakingdefense.com/2022/03/biden-administration-kills-trump-era-nuclear-cruise-missile-program/>.

¹⁷ Zoom interview with Rod Lyon, December 7, 2023.

combined nuclear forces of Russia and China. It does not need to match them perfectly; it is more a matter of having capabilities that could support escalation management at lower levels.”¹⁸ The United States ought to be thinking about a modern version of flexible response.¹⁹ One interviewed expert stated that “there should be greater urgency in the United States to change things from a political perspective, including accelerating nuclear adaptation that we’ve done slowly in the past decades, but also in terms of capabilities.”²⁰

In a way, nuclear deterrence is a victim of its own success. The tacit assumptions, not wrong, are that first, nuclear deterrence is working in its most important aspect (preventing a nuclear attack against the U.S. homeland and allies). Second, because nuclear deterrence is working, it does not need to be questioned or publicly discussed very much (and in fact, it would be counterproductive to do so). And third, that the United States, the United Kingdom, and France know what they are doing with their nuclear arsenals, and it is not allied governments’ place to comment on the particulars. At the end of the day, U.S. taxpayers bear the consequences of U.S. armament choices and the details have to be worked out within the U.S. political process (or the British or the French accordingly). But that does not mean that other countries consider U.S. force posture decisions unimportant, as the case of the Japanese government’s reaction to the retirement of a nuclear-capable Tomahawk illustrates.²¹ It certainly does not mean that all is well with U.S. assurance.

Can the United States Prevail in Two Regional Theaters Simultaneously?

The interviews highlighted allied concerns over whether the United States maintains sufficient conventional capabilities to be able to uphold its global obligations, particularly in a situation in which it might be required to exert itself on behalf of allies in two theaters on opposite sides of the globe. The principal questions are whether the United States has (and will continue to have) enough conventional forces to support its alliances in both Europe and the Indo-Pacific regions, how would it prioritize capabilities if it needed to do so, and how steadfast its commitment would be to both theaters. European allies are worried that the U.S. focus on China on the heels of a pivot to Asia will diminish U.S. attention to Europe, while allies in the Indo-Pacific worry about whether the U.S. focus on Ukraine and assuring NATO allies will leave it incapable of devoting a sufficient level of attention and resources to the Indo-Pacific region.

Would the United States have enough capability to fight two regional wars with a nuclear peer in each theater and a lesser nuclear power in one of them, particularly given

¹⁸ Zoom interview with Sugio Takahashi, February 16, 2024.

¹⁹ Zoom interview with David Lonsdale, January 17, 2024.

²⁰ This expert wished to remain unanimous.

²¹ Matthew Costlow and Keith Payne, “TLAM-N and SLCM-N: Lessons for Extended Deterrence and Assuring Allies,” *Information Series* No. 567 (Fairfax, VA: National Institute Press, November 15, 2023), available at https://nipp.org/information_series/matthew-r-costlow-and-keith-b-payne-tlam-n-and-slcm-n-lessons-for-extended-deterrence-and-assuring-allies-no-567-november-15-2023/.

collaboration between Russia and North Korea and Russia and China? The *2023 Strategic Posture Commission Report* stated that “If the United States and its Allies and partners do not field sufficient conventional forces to achieve this objective, U.S. strategy would need to be altered to increase reliance on nuclear weapons to deter or counter opportunistic or collaborative aggression in the other theater.”²² The United States inflicted some of its defense capability wounds. This fiscal year, Congress’ inability to pass a regular budget on time cost the Department of Defense close to \$300 million *a day*; and continuing resolutions preclude a topline increase or starting new programs, making the required investments to U.S. capability to sustain a fight more difficult and less efficient.²³ The last time Congress passed budget on time was in 1997.²⁴

In addition to whether the United States has enough *existing* capability, a related question is whether it would be able to respond flexibly and quickly enough to a requirement of fighting two regional wars simultaneously given the rather slow pace of defense recapitalization and modernization efforts. As Lyon pointed out, as the security environment grows worse in the next 10 years, the demand for U.S. assurance will outrun the supply.²⁵ As that happens, “the United States will need to be aware of overreach and will have to prioritize. That suggests we’re going to be looking at a ‘shake-out’ of current alliances, and a more selective form of U.S. strategic engagement.”²⁶ This need for prioritization, potentially at the expense of one region over another, makes allies nervous and their nervousness is made worse by U.S. think tank and advocacy pieces proposing to focus more on one region over another.²⁷

Differing Threat Perceptions a Potential Future Source of Alliance Trouble

For some allied states, Russia’s February 2022 invasion of Ukraine fundamentally underscored the importance of U.S. extended deterrence and nuclear guarantees. This need was born out of historical experience. Prior to World War II, Central and Eastern European states were left at the mercy of German and Russian invaders, despite having France’s and the United Kingdom’s security guarantees.²⁸ While the geopolitical situation in today’s

²² Creedon and Kyl, et al., *America’s Strategic Posture*, op. cit.

²³ Elaine McCusker, “Congress is wasting time while danger builds,” *The Hill*, February 16, 2024, available at <https://thehill.com/opinion/national-security/4470044-congress-is-wasting-time-while-danger-builds/>.

²⁴ Gus Wezerek, “20 Years Of Congress’s Budget Procrastination, In One Chart,” *FiveThirtyEight*, February 7, 2018, available at <https://fivethirtyeight.com/features/20-years-of-congresss-budget-procrastination-in-one-chart/>.

²⁵ Zoom interview with Rod Lyon, December 7, 2023.

²⁶ Ibid.

²⁷ For a prominent example of this argument see Masahiro Okoshi, “China threat should be bigger U.S. priority than Ukraine: analyst,” *Nikkei Asia*, April 20, 2023, available at <https://asia.nikkei.com/Editor-s-Picks/Interview/China-threat-should-be-bigger-U.S.-priority-than-Ukraine-analyst>.

²⁸ Germany took over Czechoslovakia’s Sudetenland, an area with about 3 million German-speaking Czechoslovaks, with the United Kingdom’s agreement, in October 1938. Poland was invaded by Germany from one direction and the Soviet Union from the other in September 1939. France and the United Kingdom’s reaction was very limited.

Europe is different than before World War II, the United States remains the preferred security guarantor for many NATO members that joined the Alliance after the end of the Cold War.

Today, European NATO members are not uniformly in agreement on the degree to which Russia presents a threat, even if they appear to agree in public statements. If defense spending levels convey a reasonable approximation of a state's threat perception, only 18 NATO member states are expected to hit the benchmark of two percent of GDP for defense in 2024,²⁹ up from 11 that met the threshold in 2023.³⁰ On the other hand, countries that did not meet the benchmark in 2023 include some of the richest members of the Alliance, including France and Germany. Their publics prefer that governments spend resources on domestic programs rather than on defense. The governments are beholden to that dynamic, even if they are slowly trying to communicate that a change in priorities is warranted.

While there is much to criticize about setting two percent of GDP as a benchmark against which to judge whether a country is meeting its defense obligations, the fact is that the threshold was formalized voluntarily among all member states after Russia's 2014 invasion of Crimea, prior to the further deterioration in Europe's security environment. This begs a question whether two percent is enough to be able to deter and adequately respond to future conflicts given the fact that Russia has switched to a war economy and has modernized almost all of its nuclear weapon arsenal in recent years. Others argue that some states' defense budgets cannot absorb such an increase in a short period of time and endorse an incremental approach. The challenge is to spend these resources well, not just to spend them, they say. Nevertheless, because so few states actually met the benchmark in the years following 2014, some of these increases will be spent on recapitalization rather than on generating new capabilities.

Some U.S. allies are concerned about U.S. calls for burden-sharing increases, in recent history most aggressively personified by former President Donald Trump. As much as allied politicians find his statements bewildering at times, Dutch Prime Minister Mark Rutte recently said "Stop moaning and whining and nagging about Trump."³¹ He went on to argue that "We do not spend more on defense or ramp up ammunition production because Trump might come back. We have to do this because we want to do this, because this is in our interests."³² For some, the hyper-focus on President Trump's statements only serves to deflect from the problem of allied governments not being willing to invest in defense.

The more immediate challenge for those states in Europe that do meet the 2 percent threshold already (or have been meeting it for years) is in the U.S. political discourse. One

²⁹ James Frater and Joshua Berlinger, "Record 18 NATO states expected to meet 2% defense spending threshold this year," *CNN*, February 14, 2024, available at <https://www.cnn.com/2024/02/14/europe/nato-defense-spending-target-intl/index.html>.

³⁰ NATO Public Diplomacy Division, "Defence Expenditure of NATO Countries (2014-2023)," July 7, 2023, available at https://www.nato.int/nato_static_fl2014/assets/pdf/2023/7/pdf/230707-def-exp-2023-en.pdf.

³¹ Karen Gilchrist, "Germany's Scholz commits to spending 2% on defense 'in the 2020s, in the 2030s and beyond'," *CNBC*, February 17, 2024, available at <https://www.cnbc.com/2024/02/17/germanys-scholz-commits-to-spending-2percent-on-defense-over-next-10-years.html>.

³² *Ibid.*

interviewed expert stated that “Europe is treated as a whole, and in some cases the narrative is created in such a way that Poland and the Baltic states are victims of Germany not paying enough and being considered the same.”³³ U.S. security guarantees to NATO member countries ought not depend on how much Germany spends on its defense budget. At the same time, it is plausible to suspect that the more assured U.S. allies feel, the less likely they are to contribute to their own defense. In this light, could NATO states’ recent budget increases be interpreted as an indicator of diminishing trust in U.S. security guarantees?³⁴ Could the UK’s recent decision to increase its nuclear warhead cap for the first time since the end of the Cold War reflect a perception that the U.S. nuclear deterrent is stretched too thin?³⁵

Some experts and policy-makers question whether Russia is a threat to NATO at all, given the abysmal performance of its forces in Ukraine, and argue that, irrespective of Moscow’s imperialist rhetoric, Russia remains a serious threat only to its non-NATO neighbors, such as Georgia or Moldova.³⁶ This perception is not shared universally. Danish Defense Minister Troels Lund Poulsen recently stated that “Russia’s capacity to produce military equipment has increased tremendously,” and that it “cannot be ruled out that within a three- to five-year period, Russia will test Article 5 and NATO’s solidarity. That was not NATO’s assessment in 2023. This is new knowledge that is coming to the fore now.”³⁷ He is by no means alone. German Defense Minister Boris Pistorius warned that Russia could attack NATO within 5-8 years.³⁸ Lithuanian Foreign Minister Gabrielius Landsbergis said the Lithuanians understood that if Russia was not stopped in Ukraine, it could continue and “then it’s the Baltic states who would be next.”³⁹ The prospect of Ukraine losing undoubtedly increases NATO states’ collective perception of danger.

Despite Russia’s capability loss in Ukraine, General Christopher Cavoli, Commander of the U.S. European Command, recently testified that Russia is reconstituting forces faster than U.S. initial estimates suggested and that its army is now 15 percent larger than when Russia invaded Ukraine.⁴⁰ Russia’s focus on Ukraine means that it is less of a direct conventional

³³ This expert wished to remain anonymous.

³⁴ Michael Hochberg and Leonard Hochberg, “Our Restraint Destroys Your Deterrence,” *RealClear Defense*, February 10, 2024, available at https://www.realcleardefense.com/articles/2024/02/10/our_restraint_destroys_your_deterrence_1010986.html.

³⁵ Claire Mills, “Integrated Review 2021: Increasing the cap on the UK’s nuclear stockpile,” *House of Commons Library*, March 19, 2021, available at <https://commonslibrary.parliament.uk/research-briefings/cbp-9175/>.

³⁶ Zoom Interview with Michael Rühle, former Head, Climate and Energy Security Section, Emerging Security Challenges Division, NATO, December 13, 2023.

³⁷ Jacob Gronholt-Pedersen, “Danish defence minister warns Russia could attack NATO in 3-5 years -media,” *Reuters*, February 9, 2024, available at <https://www.reuters.com/world/europe/danish-defence-minister-warns-russia-could-attack-nato-3-5-years-media-2024-02-09/>.

³⁸ Nicolas Camut, “Putin could attack NATO in ‘5 to 8 years,’ German defense minister warns,” *Politico*, January 19, 2024, available at <https://www.politico.eu/article/vladimir-putin-russia-germany-boris-pistorius-nato/>.

³⁹ Sergey Goryashko, “Will Putin attack NATO? No chance, says Lithuanian general,” *Politico*, January 25, 2024, available at <https://www.politico.eu/article/lithuania-nato-putin-ukraine-russia-war/>.

⁴⁰ Christopher Cavoli, *Statement before the U.S. Senate Armed Services Committee*, April 11, 2024, p. 3, available at https://www.armed-services.senate.gov/imo/media/doc/cavoli_statement.pdf.

threat to U.S. Indo-Pacific allies, despite having territorial disputes with some of them (e.g. with Japan). On the other hand, in the context of continued significant losses in Ukraine, Russia could increase its reliance on nuclear forces. This will likely create new problems for NATO because the Alliance has grown to see U.S. tactical nuclear weapons deployed in some European countries as weapons with a political rather than military mission.⁴¹ Russia's mobilization, ability to fight a war on an industrial scale, and willingness to absorb large losses is a source of concern for NATO, particularly in the context of what appears to be a U.S. waning commitment to European security.⁴²

The disparity in NATO member states' threat perceptions has the potential to cause intra-alliance tensions. One interviewed expert pointed out that "many countries in Europe wish that war would go away; many countries in Europe say the right things and do things symbolically in Ukraine, but they are not willing to do real things and explain them to their electorate."⁴³ States that feel more threatened are those geographically closer to Russia's borders and tend to be among the poorer members of the Alliance. They perceive Russia's conventional threat more acutely and may even see a silver lining in Russia's nuclear forces spending, because that spending is then not available for conventional capabilities and because Russia would unlikely contaminate with radiation territories it would need for sea access.

While the increases in defense spending are supported by these member states' publics in general, driven by a sense of an increased threat, a question "why are we spending so much while much richer countries are not" could over time become a source of polarization. Moreover, it would not be surprising if this particular cleavage became a target for Russia's influence operations as Russia tries to further undermine allied unity. At the same time, "remaining cohesive is important so there isn't much of an appetite for airing these grievances in the public; countries don't like that others spend less but there doesn't seem much to be done on the intra-European level," according to one expert.⁴⁴

While Russia is a more immediate threat in Europe, China is more of a global threat, and its immediate cooperation with Russia directly challenges the U.S.-led global world order.⁴⁵ This world order has been beneficial to the largest number of people in the history of

⁴¹ Amanda Macias, "U.S. intel chiefs warn Putin is expanding his nuclear weapons arsenal as the war in Ukraine drags on," *CNBC*, March 28, 2023, available at <https://www.cnbc.com/2023/03/08/us-intel-chiefs-warn-putin-is-becoming-more-reliant-on-nuclear-weapons.html>.

⁴² Max Bergmann, "A More European NATO," *Foreign Affairs*, March 21, 2024, available at https://www.foreignaffairs.com/europe/more-european-nato?utm_medium=social.

⁴³ A recent quote in *The New York Times* alludes to the same dynamic: "Germans, and even the Social Democrats, 'have come to the realization that Germany lives in the real world and that hard power matters,'" said Charles A. Kupchan, a Europe expert at Georgetown University. "At the same time," he said, "there's still this hope that this is all just a bad dream, and Germans will wake up and be back in the old world." Steven Erlanger and David E. Sanger, "Germany Braces for Decades of Confrontation With Russia," *The New York Times*, February 3, 2024; available at <https://www.nytimes.com/2024/02/03/world/europe/germany-russia.html>.

⁴⁴ This expert wished to remain anonymous.

⁴⁵ This study has not considered the problem of deterring China's aggression against Taiwan. For a detailed study on the topic, see "Special Issue: Deterring China in the Taiwan Strait," *Journal of Policy & Strategy* Vol. 2, No. 2 (2022), available at <https://nipp.org/wp-content/uploads/2022/05/Special-Issue-final.pdf>.

mankind, and was paid for dearly with American and allied blood and treasure during the course of 20th century. But European NATO allies consider the PRC too distant a threat and are preoccupied with managing Russia's resurgence on the continent.

Interviewed experts shared that there is a very acute perception of a deterioration of the strategic environment in the Indo-Pacific. There are significant uncertainties regarding China's military buildup and the meaning of its military exercises in the region. They consider the U.S. willingness to stand by Ukraine in its resistance to Russia's full-scale invasion a litmus test for how willing the United States would be to stand by its treaty allies, and the situation is not wholly encouraging. Potentially conflicting objectives abound. For example, China is the second most important market for South Korea. The U.S. turn against China makes it more difficult for the South Korean government to navigate the situation. Russia's strategic decision to cooperate with China and North Korea is likely to exacerbate regional negative security trends. North Korea is reportedly obtaining technological assistance in exchange for sending ammunition to Russia, which could translate into better missile technology.⁴⁶

For countries with smaller resources and in different geographic regions, it is nearly impossible to treat Russia and China as a threat of the same or even similar importance, and for a good reason. Europeans are understandably more concerned with Russia, the Japanese and South Koreans with China and North Korea. Some countries in Europe are worried about alienating China at a time when they are bearing the burden of economic sanctions against Russia and potentially upsetting their relations with a U.S. administration focused on great power competition. The South Koreans are most immediately concerned with North Korea.

Challenges to a Public Debate

The debate regarding U.S. nuclear assurance is often conducted in the broader context of the credibility of U.S. security guarantees, which involve more than just U.S. nuclear weapons. In general, the debate about the nuclear aspect of U.S. assurance is rather poorly informed, particularly in countries that do not possess nuclear weapons themselves.⁴⁷ Allied states face the problem of a paucity of military officers and government officials conversant on issues related to nuclear deterrence.⁴⁸ Sometimes, regional experts are not particularly knowledgeable about nuclear policy issues.⁴⁹ There is also a generational divide between people who started their careers during the Cold War and those who started their careers during the post-Cold War era. The Cold War-era experience is not always applicable to challenges stemming from a nuclear environment with two-nuclear peers and other nuclear-

⁴⁶ Sangjin Cho and Christy Lee, "North Korean-Russian Military Cooperation Could Threaten Global Security," *VOA*, January 1, 2024, available at <https://www.voanews.com/a/north-korean-russian-military-cooperation-could-threaten-global-security/7404703.html>.

⁴⁷ France is a special case, as Bruno Tertrais pointed out during his December 20, 2023, interview: "We are not gonna have a public debate on U.S. nuclear policy in France, and we don't need to; it is not really a relevant question for France."

⁴⁸ Zoom interview with Beatrice Heuser, November 27, 2023.

⁴⁹ Zoom interview with Bo Ram Kwon, December 4, 2023.

armed states. The challenge is not unique to U.S. allies. In August 2022, then-Commander of the U.S. Strategic Command Admiral Charles Richard stated that the United States is “furiously” rewriting deterrence theory to account for the rise of nuclear-armed China.⁵⁰

Some allied governments may prefer to avoid a public debate about the size of the defense budget, nuclear deterrence, and most things defense simply because their publics would not support the necessary budgetary increases commensurate with the growth in the threat. Regarding Australia, Lyon said that “there are no deep-thinking nuclear theorists in Australian party government. That’s not unreasonable: political leaders tend to be pragmatists concerned with the problems of governance. But a public debate that was not well led would be problematic. The nuclear issue could easily become misrepresented and polarizing among Australia’s population, which generally isn’t well informed about nuclear issues.”⁵¹ The situation is not dissimilar in other NATO member states. According to David Lonsdale, Senior Lecturer at the University of Hull, “The general level of debate about nuclear strategy and anything nuclear is extremely poor in the United Kingdom.”⁵² The problem is not exclusive to the United Kingdom and is broader than just nuclear issues. Lonsdale pointed out that “the West has lacked political leadership. We haven’t had good leaders since Ronald Reagan and Margaret Thatcher. They had principles and clear positions and they were excellent communicators.”⁵³

Russia’s full-scale invasion of Ukraine appears to have shifted public attitudes toward U.S. forward-deployed nuclear weapons, with surveyed European publics more in support of hosting a U.S. nuclear deterrent.⁵⁴ Prior to February 2022, the majority of Germans were skeptical of the deterrent effect of U.S. nuclear weapons forward-deployed to Europe.⁵⁵ Since Russia’s February 2022 invasion of Ukraine, the mood in Europe has appreciably changed.⁵⁶ Debates about the influence and importance of nuclear weapons have become more common, particularly following Russia’s brandishing of nuclear threats against the United

⁵⁰ 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/>.

⁵¹ Zoom interview with Rod Lyon, December 7, 2023.

⁵² Zoom interview with David Lonsdale, January 17, 2024.

⁵³ Ibid.

⁵⁴ Michal Onderco, Michal Smetana, and Tom Etienne, “Hawks in the making? European public views on nuclear weapons post-Ukraine,” *Global Policy*, January 5, 2023, available at <https://onlinelibrary.wiley.com/doi/pdf/10.1111/1758-5899.13179>.

⁵⁵ Michal Onderco and Michal Smetana, “German views on US nuclear weapons in Europe: public and elite perspectives,” *European Security*, Vol. 30, No. 4 (2021), p. 640, available at <https://www.tandfonline.com/doi/epdf/10.1080/09662839.2021.1941896?needAccess=true&role=button>.

⁵⁶ Michaela Dodge, “European Allies’ Views of Russia’s Nuclear Policy after the Escalation of Its War in Ukraine,” *Information Series* No. 570 (Fairfax, VA: National Institute Press, December 12, 2023), available at https://nipp.org/information_series/michaela-dodge-european-allies-views-of-russias-nuclear-policy-after-the-escalation-of-its-war-in-ukraine-no-570-december-12-2023/#_ednref10.

States and NATO.⁵⁷ Under these circumstances, a unilateral U.S. nuclear weapon withdrawal—an idea occasionally floated in Washington—would be extremely detrimental to allied assurance.

Solid Communication a Key to Allied Assurance

All interviewed experts emphasized the value of the United States promoting and sustaining communication with allied governments. Generally speaking, the more communication channels the United States and allies have, the better. According to some interviewees, communication and U.S. declarations to U.S. allies could be just as important as the make-up of forces the United States deploys in support of its global commitments. Bruno Tertrais, Deputy Director of the Foundation for Strategic Research in France, pointed out that “if a strong stated commitment to nuclear deterrence and extended deterrence was accompanied by a complete divestment from U.S. nuclear modernization and infrastructure, then we would see incongruence and be nervous. All things equal, the perception of credibility of U.S. extended deterrence is more dependent on statements and declaratory policy than offense-defense calculus.”⁵⁸ Communication also helps to build trust among allies and the United States over time.

According to Lyon, “when one considers the levels of dialogue, the most valuable is a leader-to-leader dialogue. That one is also the most important because on the nuclear level, the U.S. president is the sole authority for launching nuclear weapons, so other commitments do not have as much value as the president committing to the defense of an alliance with all available means.”⁵⁹ High-level visits with nuclear policy issues on the agenda tend to command significant attention. The higher the representative, the more attention the issue on the agenda gets. The meetings also provide an excellent opportunity to communicate with the public. They can be accompanied by press conferences with foreign journalists that can then report in domestic media and contribute to an increase in the overall debate level.

Other types of assurance by high-level government officials are valuable, including articles by U.S. government officials published in foreign media. Press releases showcasing capabilities of a particular weapon system that mention allies send a message of both extended deterrence and assurance. According to South Korean national security journalist Dong-hyun Kim, “the United States should link programs and weapon system rationales to their missions in the context of extended deterrence and assurance and communicate these.”⁶⁰

⁵⁷ For a related discussion, see Michaela Dodge, “What Do Russia’s Nuclear Threats Tell Us About Arms Control Prospects?” *Occasional Paper* Vol. 4, No. 1 (Fairfax, VA: National Institute Press, January 2024), available at <https://nipp.org/wp-content/uploads/2024/01/Vol.-4-No.-1.pdf>.

⁵⁸ Zoom interview with Bruno Tertrais, December 20, 2023.

⁵⁹ Zoom interview with Rod Lyon, December 7, 2023.

⁶⁰ Zoom interview with Dong-hyun Kim, December 22, 2023.

Some of the experts interviewed warned against the United States making significant unilateral changes to its declaratory posture or deployment prior to consultations with allies. At the same time, specific discussions about how the United States should respond to challenges to the credibility of nuclear guarantees are not an issue on which allied governments typically are forward leaning. This is partly because they are concerned about their relationship with the U.S. administration, especially if that administration's ideas of what is necessary to assure an ally and deter an adversary differ.

The interviews also made clear that the United States lacks skilled public communicators that can connect with the publics and political representatives in allied countries. National security communities in most allied countries are small, so the challenge of lacking skilled public communicators in this area is not exclusive to the United States. Generally speaking, most U.S. allies welcome the U.S. lead on national security discussions, particularly those pertaining to nuclear matters. The atmosphere in which these discussions happen is important, and the United States should avoid creating a perception it is talking down to allies. Washington can also help allies to develop a cadre of younger nuclear deterrence experts that could advise their governments in matters of public communication.

Even though national security has moved to the forefront of news since Russia's February 2022 invasion of Ukraine, foreign affairs are usually not what the publics in allied countries are interested in most when they vote for their representatives. That creates a burden on the U.S. and allied governments to explain the value and benefits of alliances to the public. The difficulties come when the moribund quality of public discourse regarding the roles and purposes of nuclear weapons threatens to diminish the support for the ongoing nuclear modernization program.⁶¹

Arms Control Is Taking a Backseat

Russia's 2022 invasion of Ukraine and China's nuclear build up have dimmed prospects for arms control, and perhaps even enthusiasm for it, among allied states. Russia's stream of nuclear threats against western states supporting Ukraine makes clear that Russia is not interested in the kind of arms control that would be mutually beneficial to both parties.⁶² Dominik Jankowski, a member of Poland's Permanent Delegation to NATO, emphasized that "arms control must not be a goal of its own, but ought to be linked to our deterrence objectives."⁶³ Support for arms control among allied governments could increase if Russia withdrew from Ukraine, but that prospect appears unlikely in the near-term.

⁶¹ Kyle Balzer, "America's Leaders Don't Understand Nuclear Weapons," *National Review*, March 12, 2024, available at <https://www.nationalreview.com/2024/03/americas-leaders-dont-understand-nuclear-weapons/>.

⁶² For a more detailed elaboration of this argument, see Michaela Dodge, "What Do Russia's Nuclear Threats Tell Us About Arms Control Prospects?" *Information Series* No. 564 (Fairfax, VA: National Institute Press, October 2, 2023), available at https://nipp.org/information_series/michaela-dodge-what-do-russias-nuclear-threats-tell-us-about-arms-control-prospects-no-564-october-2-2023/.

⁶³ Zoom interview with Dominik Jankowski, December 11, 2023.

Allied countries are unlikely to support any steps that would appear too conciliatory toward Russia or that would disadvantage NATO vis-à-vis Russia. Even an appearance of dealing with Russia as an equal during an arms control process could be problematic for some governments, and some interviewed experts were of the opinion that arms control is neither desirable nor feasible at this time. On the other hand, as Ulík pointed out, “there might be some value in demonstrating willingness to do arms control to show the Global South we are trying our best,”⁶⁴ but allied governments would have to be informed about the process.

Even in arms control, the United States appears to have a public relations problem and its continuous efforts to engage Russia and China in the process remain largely overlooked, let alone appreciated. According to one interviewed expert, “the United States should start highlighting that Russia and China (especially China’s lack of transparency) are a problem for arms control. The United States is putting forth proposals much more often than either of these countries but doesn’t get much credit for it.”⁶⁵

Candidate Biden supported a “no first use” (NFU) nuclear declaratory policy during his presidential campaign for the 2020 elections. As a candidate, Biden stated that “the sole purpose of the U.S. nuclear arsenal should be deterring—and, if necessary, retaliating against—a nuclear attack” and that he would “work to put that belief into practice, in consultation with the U.S. military and U.S. allies.”⁶⁶ Soundly, the administration rejected changes to U.S. declaratory policy after consultations with allies during the *Nuclear Posture Review* process. Several experts interviewed for this study emphasized the importance of refraining from changing U.S. declaratory policy so that the option to employ nuclear weapons first is preserved. Changes to this policy, particularly if executed without prior consultation with allies, would be highly detrimental to U.S. assurance goals.

U.S. Domestic Polarization a Significant Source of Allied Concerns

U.S. domestic polarization is a major source of concern for many experts interviewed for this study. This concern has to do with the unpredictability and uncertainty that polarization brings into the U.S. political process. Most recently, the perilous effects of polarization demonstrated themselves when Mike Johnson, the Republican Speaker of the U.S. House of Representatives, refused to put further military assistance for Ukraine to a vote for months.⁶⁷ The Russians have already been able to take advantage of U.S. assistance delays and make battlefield gains in Ukraine. Polarization also fosters erratic decision-making, as witnessed by a lack of enforcement of “red lines” in Syria during the Obama Administration. More

⁶⁴ Zoom interview with Karel Ulík, December 15, 2023.

⁶⁵ This expert wished to remain anonymous.

⁶⁶ Joseph Biden, “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>.

⁶⁷ The assistance bill ended up passing the House of Representatives on April 20, 2024, despite a majority of the Republicans opposing it.

recently, the Biden Administration's hasty U.S. withdrawal from Afghanistan damaged allied perceptions of U.S. credibility according to some experts interviewed for this study. Even if there may be some deterrence-related benefits to appearing erratic and unpredictable—possibly inducing some caution on the adversary's part—these features are also a significant long-term obstacle to alliance credibility.

Several experts expressed concern over then-President Donald Trump's transactional management style, particularly as he is the likely Republican nominee for the 2024 presidential elections. This concern was independent of the actual implementation of the Trump Administration's or U.S. government's policy. It shows that because the president is such a prominent foreign policy actor, his statements have a disproportionate impact on how allies perceive U.S. collective willingness to come to their defense. Also important is the fact that it is rather difficult for allied policymakers to understand the U.S. foreign and defense policy-making process and the different actors that shape it. As a consequence, the United States and allies sometimes appear to talk past each other. While U.S. national security experts tend to pay attention to specific programs and capabilities and whether they match the rhetoric, some interviewees emphasized that foreign policymakers and experts tend to focus on general atmosphere and headlines rather than policy implementation.

After these interviews were concluded, former President Trump reportedly stated that the United States would not come to the defense of any country that does not meet the two percent threshold and that he would encourage the Russians "to do whatever the hell they want" with those countries.⁶⁸ President Trump's former National Security Advisor John Bolton asserted that President Trump could seek to withdraw from NATO if elected for a second term.⁶⁹ Such debates reverberate throughout the U.S. alliance system. Allies in the Indo-Pacific might ask how likely the United States is to come to their defense if it is not willing to defend a NATO member state with relatively stronger guarantees and a history of defense cooperation.

Former President Trump's statements reflect a broader shift among the U.S. public. The 2023 Chicago Council survey documented a continued decline in respondents' support for an active engagement in world affairs.⁷⁰ In fact, 42 percent said the United States should stay out of world affairs, among the lowest recorded levels of support for engagement in the survey's almost 50-year history. The decline is concerning for U.S. allies going forward in the context of U.S. decision-making that appears less stable than ever. Some of it appears to be grounded in a loss of vision. Lonsdale observed that "there was a consensus on the need to defeat the Soviet Union but now we seem to have a situation where there is a lack of

⁶⁸ Kate Sullivan, "Trump says he would encourage Russia to 'do whatever the hell they want' to any NATO country that doesn't pay enough," *CNN*, February 11, 2023, available at <https://www.cnn.com/2024/02/10/politics/trump-russia-nato/index.html>.

⁶⁹ Kelly Garrity, "Why John Bolton Is Certain Trump Really Wants to Blow Up NATO," *Politico*, February 13, 2024, available at <https://www.politico.com/news/magazine/2024/02/13/bolton-trump-2024-nato-00141160>.

⁷⁰ Dina Smeltz and Craig Kafura, "Americans Grow Less Enthusiastic about Active US Engagement Abroad," *The Chicago Council on Global Affairs*, October 2023, p. 1, available at <https://globalaffairs.org/sites/default/files/2023-12/CCS%202023%20US%20Role.pdf>.

consensus amongst the political classes on the value of the transatlantic relationship. There is a lack of consistency in a U.S. position and what the U.S. stands for; and that is a problem because we look to the United States for that leadership. The call of the Western alliance during the World War II was a call to defend our way of life; we shared common principles and notions.”⁷¹ It is not immediately apparent how the U.S. political system can overcome the effects of polarization.

Ways Forward

The United States is in a position to take steps that would improve and support its allied assurance efforts in the short-, medium-, and long-run. Washington would likely find willing partners because, especially on nuclear issues, U.S. allies tend to follow where the United States leads.

The United States ought to continue to foster robust nuclear weapons policy dialogues in allied countries. Some of these efforts could be a continuation or expansion of ongoing strategic dialogues. They should involve government officials, members of academia and think-tanks, and journalists. Presently, there simply is not enough funding and government support available for such endeavors, particularly in allied countries.

The United States and allies have a window of opportunity provided by Russia’s full-scale invasion of Ukraine and Russia’s accompanying nuclear threats that are generating more public interest in topics related to nuclear policy and strategy. A cadre of knowledgeable government experts could help to explain the importance of U.S. nuclear guarantees to the political representatives who then could communicate more effectively with the public. This “bench” of nuclear experts should be deep enough to serve politicians regardless of political affiliation and party (parties) in power. There is often a missing communications link between government and its constituents, which makes continued education in this area important.

Not all experts that were interviewed agreed that having a public discussion on nuclear deterrence issues was desirable at present due to polarization and a general low level of information. A discussion in these conditions could split a ruling coalition and further diminish the fragile support for necessary defense budget increases. An additional challenge is that governments are not completely in control of the messaging and that adversaries are exploiting these potentially polarizing issues in information operations against NATO and Indo-Pacific allies. By not having a debate in the hope that governments would not have to defend their position on such important issues, they open themselves up to potentially more successful disinformation attacks than otherwise would be the case. An informed debate could also mitigate politicians’ ill-informed and ill-coordinated quips that could cause a challenge to assurance.

NATO followed the U.S. example in taking a break from thinking about nuclear matters after the end of the Cold War. It is time to raise its collective nuclear IQ, for example by

⁷¹ Zoom interview with David Lonsdale, January 17, 2024.

conducting more exercises that incorporate a nuclear aspect. Tertrais argued that even though France does not participate in the Nuclear Planning Group (NPG), continued allied countries participation in the NPG “helps allies understand nuclear issues better and share at least a modicum of strategic culture with the United Kingdom and France.”⁷² Additionally, the United States and allies, including in the Indo-Pacific, should further operationalize and make known the relationship between nuclear and conventional weapons. Expanding the discussion about joint planning and operations to include allied publics would contribute to their assurance.

One of the key questions for NATO “is whether the dual capable aircraft (DCA) mission should have military credibility”⁷³ in addition to its political contribution that was emphasized starting in the Obama Administration. Given Russia’s full-scale invasion of Ukraine, such a debate is timely and appropriate. The United States is in the best position to lead it.

The United States has a unique opportunity to reinvigorate a strategic debate in countries that are planning on purchasing the F-35 fighter. If a country procuring the F-35 fighter is a NATO member state, it could contribute to NATO’s nuclear burden-sharing, and perhaps plan on purchasing nuclear-certified fighters to further complicate Russia’s calculus. For example, Polish President Andrzej Duda stated that, “The problem above all is that we [Poles] don’t have nuclear weapons” and that the topic of Polish participation in nuclear sharing is open.⁷⁴ He recently stated that Poland was ready to host nuclear weapons.⁷⁵ Moreover, countries that joined NATO after the end of the Cold War might be interested in expanding their participation in NATO’s nuclear sharing arrangements, up to hosting U.S. nuclear forces.

There are other ways short of hosting U.S. nuclear forces in which NATO countries might adjust their posture to complicate Russia’s calculus. For example, countries could increase their participation in military exercises that include a nuclear component, such as *Steadfast Noon* or participate in the SNOWCAT (Support of Nuclear Operations With Conventional Air Tactics) program.⁷⁶ NATO could designate several Polish airfields as potential Dispersed Operating Bases to provide additional dispersal options, hence complicating Russia’s targeting and “potentially increase survival and sortie rates.”⁷⁷

The experts who were interviewed would welcome any steps the United States can take to increase the visibility of U.S. commitments to extended deterrence. Allies tend to feel safer when the systems are closer rather than far away, even if the main attribute of a system is its stealthiness, as in the case of nuclear submarines. For example, the United States sent an

⁷² Zoom interview with Bruno Tertrais, December 20, 2023.

⁷³ Ibid.

⁷⁴ Quoted in, 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>.

⁷⁵ Claudia Chiappa, “Poland: We’re ready to host nuclear weapons,” *Politico*, April 22, 2024, available at <https://www.politico.eu/article/poland-ready-host-nuclear-weapons-andrzej-duda-nato/>.

⁷⁶ “Poland’s bid to participate in NATO nuclear sharing,” *International Institute for Security Studies*, September 2023, available at <https://www.iiss.org/publications/strategic-comments/2023/polands-bid-to-participate-in-nato-nuclear-sharing/>.

⁷⁷ Ibid.

Ohio-class submarine to Busan in South Korea in July 2023,⁷⁸ even though port calls potentially compromise the survivability of the system, even if temporarily. U.S. B-1B strategic bombers approached Russia's borders in October 2023.⁷⁹ With regard to NATO force deployments, Ulík argued that "we should be doing more of what we are doing, and we should show more unpredictability to the Russians" to strengthen peacetime deterrence.⁸⁰

Reiteration of the U.S. commitment to NATO's Article V can help assure leaders in Europe; the more senior the U.S. official making the commitment, the better. The U.S. president (and Commander in Chief) would be the most preferred person to articulate security guarantees. The United States ought to do so often and unequivocally, lest Russian leaders think they might have a window of opportunity to attack NATO and complicate Russia's messaging in NATO member states that are reconsidering their geopolitical orientation, e.g. Slovakia or Hungary.

While few politicians in allied countries understand the nuances of U.S. nuclear weapons policy, let alone issues related to the infrastructure that supports it, conventional forces are a visible sign of U.S. willingness to come to defense of its allies with more than diplomatic demarches. Therefore, one of the key elements of assurance in the eyes of interviewed experts would be to maintain U.S. forward-deployed forces at least at a current level or greater.

Russia's February 2022 invasion of Ukraine and its subsequent use of unmanned systems, indiscriminate shelling, and ballistic missiles against civilian targets underscores the importance of missile defense for regional conflicts.⁸¹ The United States, given its capabilities, has a major role to play in terms of providing missile defenses and helping allies think through their utility, even if its capabilities cannot yet fully counter Russia's or China's arsenal, including with respect to their long-range forces.

Conclusion

This analysis considers U.S. assurance from an allied perspective. Several trends are clear. The deteriorating international security environment generates a perception of potential insufficiency on the part of the United States, particularly if a conflict happens in different regions. How acute those perceptions are is not universally shared across the alliance structure, which could introduce intra-alliance rifts in the future.

⁷⁸ Heather Mongilio, "Guided-Missile Submarine USS Michigan Pulls Into South Korea," *USNI News*, June 16, 2023, available at <https://news.usni.org/2023/06/16/guided-missile-submarine-uss-michigan-pulls-into-south-korea>.

⁷⁹ Maxim Rodionov, "Russia sends fighter jets as two US bombers, drone approach its border," *Reuters*, October 24, 2023, available at <https://www.reuters.com/world/russia-sends-fighter-jets-two-us-bombers-drone-approach-its-border-2023-10-24/>.

⁸⁰ Zoom interview with Karel Ulík, December 15, 2023.

⁸¹ For an elaboration of this point, see Michaela Dodge, "Will We Heed Lessons from Russia's War in Ukraine?" in David Trachtenberg (eds.), "Lessons Learned from Russia's Full-Scale Invasion of Ukraine," *Occasional Paper* Vol. 3, No. 10 (Fairfax, VA: National Institute Press, October 2023), pp. 29-40, available at <https://nipp.org/wp-content/uploads/2023/10/OP-Vol-3-No-10.pdf>.

Worsening security conditions generate noticeable pressure on U.S. capabilities, both nuclear and conventional, with U.S. allies having a better understanding of conventional than nuclear forces. A lack of government officials and experts conversant in nuclear weapons policy and strategy complicates efforts to adjust to this new security environment. A continued sustained investment in building up a cadre of nuclear experts and maintaining a robust dialogue on several levels would at least begin to remedy this shortcoming.

Lastly, the assurance of allies is not only a matter of U.S. military capabilities or rhetoric. Almost all experts that were interviewed were concerned about the rise of U.S. domestic polarization and the impact it has on U.S. foreign policy, particularly as it relates to U.S. support for Ukraine, even though Ukraine is not a U.S. treaty ally. The ways in which U.S. domestic polarization shapes allied assurance perceptions warrants careful consideration given the importance U.S. allies attribute to it and how U.S. policymakers generally disregard it.

Appendix: List of Interviewees

- Kosuke Amiya, Director, Japan-U.S. Security Treaty Division, Ministry of Foreign Affairs, Japan;
- Paul Dibb, Emeritus Professor, Australian National University;
- Jacek Durkalec, Staff Officer, the North Atlantic Treaty Organization;
- Lukáš Dyčka, Lecturer, Baltic Defense College;
- Beatrix Heuser, Professor, University of Glasgow;
- Dominik Jankowski, Permanent Delegation of Poland to the North Atlantic Treaty Organization;
- Dong-hyun Kim, South Korean National Security Journalist;
- Bo Ram Kwon Associate Research Fellow, Korea Institute for Defense Analyses;
- Rod Lyon, Program Director for Strategy, Australian Strategic Policy Institute of Canberra;
- David Lonsdale, Senior Lecturer, University of Hull;
- Michael Rühle, Head, Climate and Energy Security Section, Emerging Security Challenges Division, NATO;
- Michal Smetana, Associate Professor, Charles University, Czech Republic;
- Sugio Takahashi, Head, Defense Policy Division of the Policy Studies Department, National Institute for Defense Studies, Japan;
- Bruno Tertrais, Deputy Director, Foundation for Strategic Research (France); and
- Karel Ulík, Permanent Delegation of the Czech Republic to the North Atlantic Treaty Organization.



ANALYSIS

THE CHALLENGE OF INTEGRATED DETERRENCE: FROM THE “NEW LOOK” TO TODAY

Christopher J. Griffin

Revisionist, authoritarian powers are on the march, testing the resilience of the West and emboldening one another. Russia has invaded both Georgia and Ukraine in the fifteen years since Washington and its allies declared that those countries “will become members of NATO.”¹ Iran’s proxies in the Middle East have massacred hundreds of Israeli civilians, launched dozens of attacks against U.S. forces, and interrupted international shipping in the Red Sea.² China is backing Moscow and Tehran in their adventurism while threatening to invade or blockade Taiwan.³ This pattern of authoritarian aggression is complicated by a rapidly shifting military balance. The conventional military superiority that Washington enjoyed during the post-Cold War period is a fading memory.⁴ Meanwhile, Russia, China, and North Korea are on track to deploy a combined nuclear force that more than doubles that of the United States by the end of the decade.⁵ From the gray zone to the strategic nuclear balance, the United States’ deterrence posture is eroding.

The centerpiece of the Biden administration’s answer to this challenge is “integrated deterrence.” As first described by Secretary of Defense Lloyd Austin in April 2021, integrated deterrence will “use existing capabilities, and build new ones, and use all of them in networked ways—hand in hand with our allies and partners” across “multiple realms, all of which must be mastered to ensure our security in the 21st century.”⁶ The concept was highlighted in the 2022 *National Security Strategy* as “the seamless combination of capabilities to convince potential adversaries that the cost of their hostile activities outweigh their benefits,”⁷ and in the 2022 *National Defense Strategy* (NDS) as being “enabled by combat-credible forces prepared to fight and win, as needed, and backstopped by a safe, secure, and effective nuclear deterrent.”⁸ In each iteration, the administration has added

¹ North Atlantic Treaty Organization, “Bucharest Summit Declaration,” April 3, 2008; available at https://www.nato.int/cps/en/natolive/official_texts_8443.htm.

² Carla Babb, “U.S. Forces Attacked 151 Times in Iraq, Syria During the Biden Presidency,” *Voice of America*, November 17, 2023; available at <https://www.voanews.com/a/us-forces-attacked-151-times-in-iraq-syria-during-biden-presidency-/7360366.html>.

³ Dan Blumenthal, “China Takes Advantage of a New Era of World War,” *The National Interest*, November 27, 2023; available at <https://nationalinterest.org/feature/china-takes-advantage-new-era-world-war-207521>.

⁴ See, for example, Andrew F. Bacevich, Jr., *The Origins of Victory: How Disruptive Military Innovation Determines the Fates of Great Powers* (New Haven: Yale University Press, 2023).

⁵ Robert M. Gates, “The Dysfunctional Superpower: Can a Divided America Deter China and Russia,” *Foreign Affairs* 102:6 (November/December 2023), pp. 30-44.

⁶ Department of Defense, “Secretary of Defense Remarks for the U.S. INDOPACOM Change of Command,” April 30, 2021; available at <https://www.defense.gov/News/Speeches/Speech/Article/2592093/secretary-of-defense-remarks-for-the-us-indopacom-change-of-command/>.

⁷ Joseph R. Biden, *National Security Strategy* (Washington: The White House, 2022), p. 22.

⁸ Lloyd J. Austin, *National Defense Strategy* (Washington: The Pentagon, 2022), p. 1.



little of substance to Austin's initial claim that "[i]ntegrated deterrence means all of us giving our all."⁹

In the absence of detail, outside observers have defined the concept to suit their own ends. The administration's critics warn against relying on "non-military tools" to deter America's adversaries,¹⁰ or simply decry the rubric as a meaningless "platitude."¹¹ More sympathetic observers faintly praise the idea as "not so bad,"¹² or encourage the administration to move swiftly before the integrated deterrence concept is deemed "dead on arrival."¹³ The Congressional Commission on the Strategic Posture of the United States described integrated deterrence as "a good start" toward "a truly integrated, whole-of-government strategy [that brings] all elements of American power to bear," but found "little evidence of its implementation across the interagency."¹⁴

Alternately unloved and unimplemented, the "integrated deterrence" rubric may well be deemed unsalvageable by future administrations. Nonetheless, the concept highlights challenges for deterrence that are both longstanding and newly urgent. How should the United States compensate for the loss of its post-Cold War conventional military superiority? How can various instruments of power be integrated without merely substituting one for another and risking diminished effectiveness in the trade? How can Washington maintain allied assurance as wars expand into new, untested domains? These challenges are not novel. They were at the heart of Cold War debates over deterrence, including the Eisenhower administration's "New Look" and the Kennedy-Johnson administration's "Flexible Response" strategies. The Reagan administration's success was a product of how it managed those challenges. Revisiting those historical debates can shed light on the challenges that Washington faces today and how difficult it will be to achieve a satisfactory degree of deterrence and assurance in the years ahead.

New Domains, Old Dilemmas

The "integrated deterrence" rubric employed by the Biden administration draws on two recent lines of policy research. The first has focused on the dilemma associated with "gray zone" conflicts in which the stakes may be "too small" to risk great power war. Michael O'Hanlon of the Brookings Institution, for example, has argued that the United States

⁹ Department of Defense, "Secretary of Defense Remarks," op cit.

¹⁰ Thomas Spoehr, "Bad Idea: Relying on 'Integrated Deterrence' Instead of Building Sufficient U.S. Military Power," *Defense360*, December 30, 2021; available at <https://defense360.csis.org/bad-idea-relying-on-integrated-deterrence-instead-of-building-sufficient-u-s-military-power/>.

¹¹ Mike Gallagher, "The Pentagon's 'deterrence' strategy ignores hard-earned lessons about the balance of power," *The Washington Post*, September 29, 2021.

¹² Kathleen McNinnis, "Integrated Deterrence is Not So Bad," *CSIS Commentary*, October 27, 2022; available at <https://www.csis.org/analysis/integrated-deterrence-not-so-bad>.

¹³ Stacie L. Pettyjohn and Becca Wasser, *No I in Team: Integrated Deterrence with Allie and Partners* (Washington: Center for a New American Security, 2023), p. 1.

¹⁴ Madelyn Creedon, Jon L. Kyl, et al., *America's Strategic Posture: The Final Report of the Congressional Commission on the Strategic Posture of the United States* (Alexandria: Institute for Defense Analyses, 2023), p. 31.

requires an “asymmetric, integrated deterrence” that combines “economic reprisal after an initial enemy aggression” and sufficient military strength to “prevent any further conquests” without trying to reverse “initial enemy aggressions.”¹⁵ A second line of research has focused on the need for “integrated strategic deterrence” in response to the emergence of “cross-domain threats” in cyberspace and outer space that could implicate the nuclear balance.¹⁶ The Center for Global Security Research at the Lawrence Livermore National Laboratory, for example, organized dozens of workshops to flesh out the integrated strategic deterrence concept between 2015 and 2021.¹⁷

Concerns about gray zones and disruptive technologies were familiar to policymakers during the early Cold War, when the Eisenhower administration’s “New Look” strategy for deterrence and competition with the Soviet Union was eroded by the extension of the Cold War into new geographical and warfighting domains. The New Look sought to leverage the American lead in nuclear forces to convince Moscow that Washington could control the pace of escalation in any confrontation, all the while cutting defense spending from a Korean War peak of 14 percent of GDP.¹⁸ The best known iteration of the strategy was Secretary of State John Foster Dulles’ description of the “massive retaliation” concept, which sought “a maximum deterrent at a bearable cost” by substituting the “deterrent of massive retaliatory power” for local defenses along the U.S. global security perimeter.¹⁹ Although the New Look was not necessarily synonymous with massive retaliation, the two concepts were often conflated, including by Admiral Arthur Radford, Chairman of the Joint Chiefs of Staff, who claimed that the New Look “means that atomic forces are now our primary forces. It means that actions by other forces, on land, sea or air are relegated to the secondary role.”²⁰

Some of the most ardent critics of the New Look were to be found in the U.S. Army. This is unsurprising, since the Army was trapped in Radford’s “secondary role,” serving as a billpayer for the Air Force and Navy’s strategic nuclear build-ups and suffering a nearly 50 percent personnel reduction as a result.²¹ General Maxwell Taylor, who served as Army Chief of Staff between 1955 and 1959, objected to what he called the “Great Fallacy” that “the use or threatened use of atomic weapons... would be sufficient to assure the security of the United States and its friends.”²² Instead, Taylor warned that in the approaching “era of atomic plenty [and] mutual deterrence, the Communists will probably be inclined to expand

¹⁵ Michael O’Hanlon, *The Senkaku Paradox: Risking Great Power War Over Small Stakes* (Washington: Brookings Institution Press, 2019), p. 8.

¹⁶ See Paul Bernstein and Austin Long, “Multi-Domain Deterrence: Some Framing Considerations,” in Brad Roberts, ed., *Getting the Multi-Domain Challenge Right, Right* (Livermore: Lawrence Livermore National Laboratory, 2021), pp. 6-15.

¹⁷ Brad Roberts, “Introduction,” in Brad Roberts, ed., *Getting the Multi-Domain Challenge Right*, op. cit., p. 4.

¹⁸ This summary draws on John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of American National Security Policy During the Cold War* (Oxford: Oxford University Press, 2005), pp. 125-161.

¹⁹ John Foster Dulles, *Evolution of Foreign Policy* (Washington: Department of State, 1954).

²⁰ Cited in Fred Kaplan, *The Wizards of Armageddon* (Stanford: Stanford University Press, 1983), p. 183.

²¹ Brian McAllister Linn, *Elvis’ Army: Cold War GIs and the Atomic Battlefield* (Cambridge: Harvard University Press, 2016), p. 86.

²² Maxwell D. Taylor, *The Uncertain Trumpet* (New York: Harper & Row, 1959), p. 4.

their tactics of subversion and limited aggression.”²³ In such a world, the United States required a “capability to react across the entire spectrum of possible challenge” because it is “just as necessary to deter or win quickly a limited war as to deter general war.”²⁴ After all, he argued, limited aggression “if resisted with inadequate means... may expand into the general war that we are most anxious to avoid.”²⁵

Taylor’s critique of the New Look was parochial but compelling. As the dissolution of Europe’s colonial empires gained speed in the 1950s, the Third World took on a major role as a domain for subversion and brushfire wars. The United States’ edge in atomic forces did not offer clear advantages for such circumstances, nor was it clear that massive retaliation provided a credible response to limited aggression directed at such flashpoints as Berlin, South Korea, or Taiwan. Such concerns were shared by civilian defense intellectuals like Henry Kissinger, who observed that the New Look risked cornering the United States into a “Maginot mentality” in which Washington would not “run the risk of a general war for anything less than to counter a direct attack on the United States.”²⁶ As the decade progressed, the Soviet Union’s acquisition of thermonuclear weapons and the intercontinental ballistic missiles with which to deliver them suggested that deterrence was not just being eroded in the “grey areas,” as Kissinger described them, but from the high-technology heavens, as well.

The benefits of possessing a sufficient “capability to react across the entire spectrum of possible challenge,” as Taylor urged, is as compelling today as it was almost seventy years ago. Using language that Taylor could have drafted, participants at a 2017 workshop on integrated strategic deterrence argued that “effective deterrence of high-end conflict cannot be separated from effective deterrence at the lower end.”²⁷ As another workshop participant observed, however, the benefits of integrating the instruments of deterrence are “simple to articulate [but] will be difficult to realize, not least because the ‘intellectual homework’ needed to lay the foundation for operationalizing integrated strategic deterrence remains to be done.”²⁸ The Army’s attempt to operationalize Taylor’s vision of deterrence during the 1950s indicates how wide a gap can separate a concept from its execution.

The Rise and Fall of the Pentomic Army

Faced with severe budgetary restraints and the need to prepare for a wide range of contingencies, Taylor sought during the 1950s to build a “dual-capable” Army that possessed

²³ Ibid., p. 33.

²⁴ Ibid., pp. 6-7.

²⁵ Ibid., p. 35.

²⁶ Henry A. Kissinger, “Military Policy and Defense of ‘Grey Areas,’” *Foreign Affairs* 33:3 (1955), p. 417.

²⁷ See *Exploring the Requirements of Integrated Strategic Deterrence: A Workshop Report* (Livermore: Lawrence Livermore National Laboratory, 2017).

²⁸ Paul Bernstein, “Toward an Integrated Strategic Deterrent,” in Brad Roberts, ed., *Fit For Purpose? The U.S. Strategic Posture in 2030 and Beyond* (Livermore: Lawrence Livermore National Laboratory, 2020), p. 77.

“the built-in capability to use atomic and non-atomic weapons in any combination.”²⁹ Taylor proposed the “pentomic” reorganization of Army divisions, replacing the three legacy regiments per division with five, far smaller but self-contained “battle groups” that could disperse or concentrate at will on the atomic battlefield. Taylor, who had commanded the 101st Airborne Division during the Second World War, wrote that “all Army units must be trained for all-around combat in the same way that we trained and fought our airborne divisions in WWII,” with ground commanders prepared to find the enemy and “destroy him by directing atomic fire upon him, using his own organic weapons or calling down the fire of distant missiles deployed in the rear.”³⁰ In this conception, tactical nuclear weapons were “viewed not as small-scale strategic bombs, but as artillery of unprecedented effectiveness.”³¹

The pentomic era saw a flood of debate and concept development regarding atomic warfare. Between 1955 and 1959, when Taylor served as Chief of Staff, 132 articles in *Military Review* addressed nuclear combat, more than in the rest of the period between 1945 and 1980 combined.³² Army officers “questioned the size of area of which units would operate; questioned organization, tactics, techniques, and survival on the atomic battlefield; questioned the role of infantry, artillery, armor, and airborne forces; questioned the relationship between ground and air forces and between ground forces in front in rear.”³³ These debates were not just theoretical, as the decade saw the fielding of such weapons systems as the nuclear-capable 280mm M-65 field gun, better known as the “Atomic Annie,” and the “Davy Crockett” recoilless gun that launched a projectile with a yield with just one tenth of one percent of the Hiroshima bomb. These short-range systems were paired with longer range nuclear-armed rockets like the “Honest John” and “Corporal.”

Despite this flourishing of activity, exercises designed to test atomic warfighting concepts indicated the difficulties that the Army faced. Exercise SAGEBRUSH, held at Ft. Polk in 1955, indicated that a large-scale tactical nuclear exchange with the Warsaw Pact “would have destroyed the army forces and killed most if not all inhabitants of Louisiana.”³⁴ The following year, the referees for NATO’s CARTE BLANCE field training exercise concluded that the exchange of 355 atomic weapons would have resulted in almost two million West German civilian casualties.³⁵ It was impossible to know how a war fought with tactical nuclear weapons would progress, but such results provided fodder for those who believed it would be a brief segue to an all-out exchange of strategic nuclear forces.

²⁹ A.J. Bacevich, *The Pentomic Era: The U.S. Army Between Korea and Vietnam* (Washington: National Defense University Press, 1986), p. 63.

³⁰ Taylor, quoted in John P. Rose, *The Evolution of U.S. Army Nuclear Doctrine 1945-1980* (Boulder: Westview Press, 1980), p. 63.

³¹ Bacevich, op. cit., pp. 64-66.

³² Rose, op. cit., p. 57.

³³ Ibid, p. 56.

³⁴ Ingo Trauschweizer, *Maxwell Taylor’s Cold War: From Berlin to Vietnam* (Lexington: University Press of Kentucky, 2019), op. cit., p. 69.

³⁵ Linn, op. cit., p. 225.

The difficulties extended to basic questions of organization and operations. The 101st Airborne Division lost 5,600 officers and men when reorganized along pentomic lines. Although it gained rocket launchers, the division lost its 155-mm howitzers in the exchange, leaving it undermanned and lacking an essential fire support asset for non-nuclear, combined arms combat.³⁶ When tested in a field training exercise, another pentomic division headquarters was paralyzed as it tried to process 22,000 messages a day.³⁷ The M-65 Atomic Annie required hours to emplace and was an inviting target for counterbattery fire.³⁸ The Davy Crockett proved deadly to the careers of officers to whom it was assigned, as the additional classroom training and storage requirements associated with the weapon system prevented participation in field exercises.³⁹ Finally, the transition to atomic age equipment exceeded the technical aptitude of many soldiers in a conscript-based Army, creating a dilemma that one general officer tersely described: "Push button trucks may be easier for idiots to operate, but they require geniuses to maintain."⁴⁰

As convincing as Taylor's critique of the New Look may have been, the Army was simply unable to implement his proposed alternative during the 1950s. Whether or not the Army could have resolved the doctrinal, weapons, and personnel problems presented by tactical nuclear warfighting or the "pentomic" division, the United States would pivot away from both concepts in the 1960s.

The Pitfalls of Flexible Response

During the 1960 presidential election, John F. Kennedy embraced Maxwell Taylor's critique of the New Look and his "Flexible Response" rubric as an alternative.⁴¹ Although Taylor was recruited into the White House as a military adviser in 1961, the Kennedy administration rejected the pentomic division and Taylor's vision for tactical nuclear warfighting. The administration's theory of nuclear deterrence focused instead on "mov[ing] from the 'spasm' notion to the notion of controlled response"⁴² in which the United States could rely on limited, nuclear strikes followed by negotiating pauses to restore intra-war deterrence and end a crisis or conflict on acceptable terms.⁴³ The military's general purpose force would focus on non-nuclear warfighting, as well as developing the counterinsurgency capabilities

³⁶ Trauschweizer, op. cit., p. 83.

³⁷ Ibid., p. 225.

³⁸ Linn, op. cit., p. 105.

³⁹ Ibid., p. 111.

⁴⁰ Ibid., pp. 99, 124, 144.

⁴¹ John F. Kennedy, "Special Address to Congress on the Defense Budget," March 28, 1961; available at <https://www.presidency.ucsb.edu/documents/special-message-the-congress-the-defense-budget>.

⁴² "Memorandum of Conversation Between Kaysen and Rowen," May 25, 1961, *Foreign Relations of the United States, 1961-1963*, Volume XIII, National Security Policy, David W. Mabon, ed. (Washington: Government Printing Office, 2018), Document 28. (Henceforth, all volumes will be cited as FRUS.)

⁴³ Kaplan, op. cit., p. 273.

required for brushfire wars.⁴⁴ Responsibility for these efforts fell to Secretary of Defense Robert S. McNamara, who would soon encounter practical roadblocks echoing some of those Taylor had found in the preceding decade.

The administration's early nuclear strategy efforts culminated in McNamara's May 1962 speech at a NATO ministerial meeting in Athens, Greece, where he described U.S. preparations to carry out "a controlled and flexible nuclear response in the event that deterrence should fail."⁴⁵ In Athens, McNamara described three corollaries that would extend Flexible Response to NATO: (1) building up conventional forces so as not to be compelled to "initiate the use of nuclear forces" in response to a limited Soviet attack; (2) rejecting France's plan to deploy what McNamara disparaged as "weak nuclear capabilities, operating independently;" and, (3) minimizing reliance on tactical nuclear weapons, except as a "next-to-last option" given the likelihood of escalation to a general nuclear war.⁴⁶ McNamara argued that Flexible Response offered NATO a seamless web of deterrent capabilities, reliant first on conventional forces and backstopped by U.S. theater, and ultimately, strategic nuclear forces. His vision soon proved to be a nightmare for allied assurance.

The Athens speech elicited a neuralgic response from the European allies, who feared that McNamara's emphasis on conventional forces made war more rather than less likely. France, the United Kingdom, and Germany were "unwilling to consider any meaningful 'flexibility' on any use of nuclear weapons except in the context of strategic nuclear exchange... insist[ing] on a concept of 'trip-wire' in which any crossing of a geographic line would automatically trigger 'total nuclear response.'"⁴⁷ Germany's defense minister expressed his concern that a NATO commitment to "meet a conventional attack... with conventional weapons alone was the ideal invitation for an aggressor to attempt such an attack knowing that it would not be as dangerous."⁴⁸ To many in Europe, McNamara's approach risked delinking the continent from the U.S. strategic deterrent, rather than enhancing its credibility.

McNamara's critique of France's independent nuclear *force de frappe* was especially ill-received in Paris. Charles De Gaulle argued that "the American emphasis on 'conventional options' and 'pauses' [confirmed] his assessment that the United States would never risk its own cities to defend Europe." The Franco-American recriminations were mutual: National Security Advisor Walt Rostow observed in his memoir that "I have never seen harder faces than those of high American officials reading intelligence reports of Frenchman peddling the doctrine that the *force de frappe* was a cheap finger on the American nuclear trigger."⁴⁹

⁴⁴ Rose, op. cit., pp. 76, 93.

⁴⁵ "Address by Secretary of Defense McNamara at the Ministerial Meeting of the North Atlantic Council," May 5, 1962, *FRUS, 1961-1963*, Volume VIII, op. cit., Document 82.

⁴⁶ Ibid.

⁴⁷ Jane E. Stromseth, *The Origins of Flexible Response* (London: The Macmillan Press, 1988), pp. 53-54.

⁴⁸ Ibid., p. 125.

⁴⁹ W.W. Rostow, *The Diffusion of Power: An Essay in Recent History* (New York: The Macmillan Company, 1972), p. 241.

European mistrust of Flexible Response was, in hindsight, well founded. The United States simply had not done the intellectual homework to implement the concept in the 1960s. As early as April 1961, the Joint Chiefs of Staff warned McNamara that “we do not now have the requisite capabilities for carrying out a doctrine of controlled responses and negotiating pauses” and that “attempts at the present time to implement such a doctrine... would be premature and could gravely weaken our deterrent posture.”⁵⁰ It would not be until the mid-1970s that the Pentagon was able to apply new concepts for the employment of limited nuclear options that were increasingly credible and tailored to desired outcomes.⁵¹ In the interim, McNamara would reject the logic of Athens, lobbying privately for a no-first use posture⁵² that he would later endorse publicly.⁵³ Although Taylor argued for reinvigorating tactical nuclear capabilities and the United States continued to deploy tactical nuclear weapons to Europe, there was little effort to develop new concepts in the face of hostility and disinterest from Washington.⁵⁴

NATO formally endorsed the “Flexible Response” rubric in late 1967, but that move did little to resolve transatlantic mistrust. One relatively sympathetic observer noted that “by asserting the continuity of the conflict spectrum, and grounding deterrence in the risk that any confrontation, however small, might—but need not—escalate to total war, Flexible Response satisfied both European insistence on the centrality of the strategic nuclear deterrence and the U.S. desire to hedge the risk of its use.”⁵⁵ Dennis Healey of the United Kingdom observed more bluntly that “[n]o-first-use would have been McNamara’s objective, whereas the Europeans believed that nuclear deterrence gave deterrence on the cheap.”⁵⁶ Lawrence Freedman ultimately concluded that the concept’s “prime political attribute—that it can mean all things to all men—is a serious military failing.”⁵⁷

The unresolved tensions surrounding Flexible Response indeed proved a substantial liability in the latter stages of the Cold War. Allied indecision invited Soviet political warfare in in the “Euromissiles” crisis beginning in the late 1970s, when the Soviet deployment of intermediate-range ballistic missiles pushed NATO’s political cohesion to the brink.⁵⁸ The episode remains a cautionary tale about the difficulties of extended deterrence and

⁵⁰ “Memorandum from the Chairman of the Joint Chiefs of Staff (Lemnitzer) to Secretary of Defense Robert McNamara,” *FRUS, 1961-1963*, Volume VIII, op. cit., Document 25.

⁵¹ For a summary of these breakthroughs, see Keith B. Payne and Matthew R. Costlow, “Back to the Future: U.S. Deterrence Today and the Foster Panel Study,” *NIPP Information Series* 565 (October 16, 2023).

⁵² Stromseth, op. cit., pp. 58-59.

⁵³ Robert S. McNamara, “The Military Role of Nuclear Weapons: Perceptions and Misperceptions,” *Foreign Affairs* 62:1 (Fall 1983), pp. 59-80.

⁵⁴ “Letter from the President’s Military Representative (Taylor) to the Chairman of the Policy Planning Council and Counselor of the Department of State (Rostow),” *FRUS, 1961-1963*, Volume VIII, op. cit., Document 84. For a summary of McNamara’s concerns regarding tactical nuclear weapons see “Memorandum from Secretary of Defense McNamara to the Chairman of the Joint Chiefs of Staff (Lemnitzer),” *ibid.*, Document 86.

⁵⁵ Stromseth, op. cit., p. 182.

⁵⁶ *Ibid.*, p. 164.

⁵⁷ Lawrence Freedman, “NATO Myths,” *Foreign Policy* 45 (Winter, 1981-1982), p. 64.

⁵⁸ See J. Michael Legge, *Theater Nuclear Weapons and the NATO Strategy of Flexible Response* (Santa Monica: The RAND Corporation, 1983).

assurance, even as the Biden administration declares its commitment to the “integration with allies and partners through investments in interoperability.”⁵⁹

The Reagan Strategy for Deterrence and Competition

In contrast with the frustrations and false starts described thus far, the Reagan administration stands out for its ability to integrate the instruments of national power in keeping with Ronald Reagan’s deceptively simple articulation of Cold War strategy: “we win and they lose.”⁶⁰ This strategy was spelled out in a pair of National Security Decision Directives, NSDD-32 and NSDD-75, issued in May 1982 and January 1983, respectively. NSDD-32, the “National Security Strategy,” called for the “development and integration of... diplomatic, informational, economic/political, and military” strategies, emphasizing that “the national security objectives of the United States can be met only if all defense resources are mutually supporting and thoroughly integrated and complement the other elements of U.S. national power.”⁶¹ NSDD-75, on “U.S. Relations with the USSR,” identified three overarching objectives: “external resistance to Soviet imperialism; internal pressure on the USSR to weaken the sources of Soviet imperialism; and negotiations to eliminate, on the basis of strict reciprocity, outstanding disagreements.”⁶² Combined, the two documents formed the basis of a “comprehensive strategy... pursuing the Soviet Union’s negotiated surrender.”⁶³

Critically, the Reagan strategy for deterrence and competition with the Soviet Union was not just committed to paper but was executed across the administration. The strategy’s fulcrum was a major defense buildup following a decade of budgetary neglect.⁶⁴ Having inherited an approximately \$150 billion defense budget upon arriving at the Pentagon, the administration grew defense spending by some \$20 billion per year through its first term.⁶⁵

⁵⁹ Biden, op. cit., p. 22.

⁶⁰ Quoted in William Inboden, *The Peacemaker: Ronald Reagan, the Cold War, and the World on the Brink* (New York: Dutton, 2022), p. 22. Despite the evident simplicity of this strategy, Reagan’s view was crafted over the course of hundreds of speeches that he wrote by hand and delivered during the 1980s. Richard Pipes, a Harvard professor who served as Reagan’s top Russia expert, concluded from his time in the White House that Reagan “understood very well—intuitively rather than intellectually—the fundamental weaknesses of the Soviet regime.” See Karon K. Skinner et al., eds, *Reagan in His Own Hand: The Writings of Ronald Reagan that Reveal His Revolutionary Vision for America* (New York: Simon & Schuster, 2001). See also Richard Pipes, *Vixi: Memoirs of a Non-Belonger* (New Haven: Yale University Press, 2003), p. 193.

⁶¹ Ronald Reagan, “National Security Decision Directive-32,” May 20, 1982; available at <https://irp.fas.org/offdocs/nsdd/nsdd-32.pdf>.

⁶² Ronald Reagan, “National Security Decision Directive-75,” January 17, 1983; available at <https://irp.fas.org/offdocs/nsdd/nsdd-75.pdf>.

⁶³ Inboden, *The Peacemaker*, op. cit., pp. 4-5.

⁶⁴ Greg Schneider and Renae Merle, “Reagan’s Defense Buildup Bridged Military Eras,” *The Washington Post*, June 9, 2004; available at <https://www.washingtonpost.com/archive/business/2004/06/09/reagans-defense-buildup-bridged-military-eras/ec621466-b78e-4a2e-9f8a-50654e3f95fa/>.

⁶⁵ Department of Defense, “Casper W. Weinberger,” <https://history.defense.gov/Multimedia/Biographies/Article-View/Article/571286/caspar-w-weinberger/>.

This surge of funding would be wasted without a guiding vision, which as stated in NSDD-75, was to “modernize its military forces—both nuclear and conventional—so that... Soviet calculations of possible war outcomes under any contingency must always result in outcomes so unfavorable to the USSR that there would be no incentive for Soviet leaders to initiate an attack.”⁶⁶

The modernization of intercontinental and theater nuclear forces were the administration’s “first priority”⁶⁷ and one of its most hard-fought issues before the first Pershing II missiles were deployed to Europe in 1983 and Congress funded the Peacekeeper ICBM in early 1985.⁶⁸ Even more dramatic was Reagan’s announcement of the Strategic Defense Initiative (SDI) in March 1983, which proposed a radical shift from “the threat of instant U.S. retaliation to deter a Soviet attack” to a missile shield for the United States and its allies.⁶⁹ The SDI has been characterized as the “apotheosis” of the Reagan defense buildup, since it demonstrated the U.S. “capability to overmatch the Kremlin’s quantitative edge in troops, tanks, aircraft, missiles, and ships.”⁷⁰ No aspect of the Reagan strategy more dramatically “highlighted the Soviet Union’s lag in computers and microelectronics.”⁷¹

During the 1980s, the United States paired its technological edge with novel operational concepts in order to strengthen the contribution of conventional forces to deterrence. The Army and Air Force’s major contribution to this effort was the development of the AirLand Battle concept, which relied on a combination of intelligence, surveillance, long-range artillery, and tactical air support required to “extend the battlefield” and destroy Soviet second echelon forces before they could reach the front line along the intra-German frontier.⁷² Although Airland Battle sought to substitute conventional forces for an interdiction role that was previously viewed as the domain of battlefield nuclear weapons, it allowed NATO to field and exercise plausible capabilities for doing so.⁷³ Such efforts contrast well to largely aspirational adoption of Flexible Response in 1967.

⁶⁶ NSDD-75, p. 2.

⁶⁷ See Reagan, NSDD-32, op. cit., p. 5.

⁶⁸ See Susan Colburn, *Euromissiles: The Nuclear Weapons that Nearly Destroy NATO* (Ithaca: Cornell University Press, 2022). See also Inboden, *The Peacemaker*, op. cit., p. 316.

⁶⁹ Ronald Reagan Presidential Library, “Address to the Nation on Defense and National Security,” March 23, 1983; available at <https://www.reaganlibrary.gov/archives/speech/address-nation-defense-and-national-security>. Reagan’s rationale for SDI is highly debated, and it seems to have drawn upon a combination of technological optimism, the value of a selective missile defense capability if deterrence failed, and Reagan’s profound abhorrence of the threat of nuclear war. For a discussion of these influences see, inter alia, Inboden, pp. 201-204; Fred Kaplan, *The Bomb: Presidents, Generals and the Secret History of Nuclear War* (New York: Simon & Schuster, 2020), pp. 152-154; and Keith B. Payne, *The Great American Gamble: Deterrence Theory and Practice from the Cold War to the Twenty-First Century* (Fairfax: National Institute Press, 2008), pp. 166-170.

⁷⁰ Inboden, *The Peacemaker*, op. cit., p. 205.

⁷¹ Thomas Mahnken, “Arms Competition, Arms Control, and Strategies of Peacetime Competition from Fisher to Reagan,” in Hal Brands, ed., *The New Makers of Modern Strategy* (Princeton: Princeton University Press, 2023), p. 862.

⁷² Mike Guardia, *Crusader: General Donn Starry and the Army of His Times* (Philadelphia: Casemate, 2018), pp. 152-153. For the depth of Army and Air Force cooperation, see David E. Johnson, *Shared Problems: The Lessons of AirLand Battle and the 31 Initiatives for Multi-Domain Battle* (Santa Monica: RAND, 2018).

⁷³ For additional insight on the development of AirLand Battle, see John L. Romjue, *From Active Defense to AirLand Battle: The Development of Army Doctrine 1973-1982* (Fort Monroe: U.S. Army Training and Doctrine Command, 1984) and

For its part, the U.S. Navy sought to transform itself during the 1980s into an offensive striking force that would hold Soviet ballistic missile submarine bastions in the Barents Sea and Sea of Japan at risk.⁷⁴ This effort culminated in the “Maritime Strategy” implemented by Secretary of the Navy John Lehman. The distinct value of Lehman’s approach was described by a Maritime Strategy acolyte: “One of the messages we intended to send was—you will never get to your missile launch point. And that’s deterrence!”⁷⁵ A senior official in Moscow agreed with that assessment, noting that the Maritime Strategy compelled the Soviet Navy to re-task its “attack submarines to defend the strategic ones in the Barents Sea” rather than stalk U.S. carriers and strategic missile submarines as prescribed in its preferred strategy.⁷⁶

Concurrently, the Reagan administration worked toward the NNSD-32 goal of employing “the other elements of U.S. national power” beyond the military. Unlike the 1950s and 1960s, when the Soviet Union backed the anti-colonial insurgencies throughout the Third World, the USSR was the world’s foremost imperial power in the 1980s. The United States backed anti-communist guerillas from Angola and Afghanistan, which Moscow spent billions of dollars each year to suppress.⁷⁷ The CIA struck at the heart of the Soviet empire through the provision of covert funding and non-lethal support to the anti-Soviet opposition in Poland.⁷⁸ Washington also engaged in economic warfare, tightening the sanctions regime on Moscow while purposefully allowing sabotaged equipment to slip through the cracks.⁷⁹

The Reagan strategy imposed unrelenting pressure on Moscow that eventually compelled Mikhail Gorbachev to fulfill the NSDD-75 vision of a Soviet leader who was willing to retire from the Cold War. In pursuit of that outcome, the interagency created dilemmas that fostered doubt in Moscow that conflict could result any outcome but one “so unfavorable to the USSR that there would be no incentive for Soviet leaders to initiate an attack.” Moreover, it worked to dictate the pace by which the competition would take place in the gray zones and new domains by through for anti-Soviet movements and fielding new systems that made the most of the United States’ qualitative military edge. And comprehensiveness of the Reagan buildup allowed the administration to avoid relying too much on any one capability for deterrence.

Benjamin M. Jensen, *Forging the Sword: Doctrinal Change in the U.S. Army* (Stanford: Stanford University Press, 2016), especially Chapter 3.

⁷⁴ Narushige Michishita, et al., *Lessons of the Cold War in the Pacific: U.S. Maritime Strategy, Crisis Prevention, and Japan’s Role* (Washington: Wilson Center, 2015), p. 4. See also Lehman, *Oceans Ventured*, op. cit., pp. 52-56.

⁷⁵ Admiral James Lyons, quoted in Lehman, *Oceans Ventured*, op. cit., p. 73.

⁷⁶ Dr. Vitaly Tsygichko, an analyst on the Soviet General Staff, quoted in *Ibid.*, p. 145.

⁷⁷ Inboden, *The Peacemaker*, op. cit., pp. 317-319.

⁷⁸ *Ibid.*, pp. 178-179. See also Seth G. Jones, *A Covert Action: Reagan, the CIA, and the Cold War Struggle in Poland* (New York: W.W. Norton, 2018).

⁷⁹ Mahnken, “Strategies of Arms Competition,” op. cit., p. 863.

Conclusion

The successes and shortcomings of integrated deterrence's Cold War predecessors suggests a range of lessons that the policy community should bear in mind as it tries to work out the "intellectual homework" associated with deterrence today.

First, policymakers should mind the gap that can separate the identification of a deterrence challenge from its resolution. Despite Taylor's experimentation during the 1950s, the Army could not produce a convincing theory of tactical nuclear warfighting to offset the Soviet Union's quantitative strength. Despite the efforts of McNamara and his whiz kid advisors in the early 1960s, U.S. nuclear command and control (NC2) technology of the time was simply unable "to satisfy the functional requirements of Flexible Response."⁸⁰ Even as the United States fielded improved NC2 systems in the 1970s and the conventional warfighting breakthroughs associated with Airland Battle in the 1980s, it was unlikely that Moscow would join Washington in forswearing the early, large-scale use of tactical nuclear weapons during wartime.⁸¹ The United States should expect to grapple with the deterrence challenges it faces today for many years to come.

Second, successful efforts at integrated deterrence are likely to be additive rather than substitutive in nature. Much of the Reagan administration's success during 1980s can be attributed its wide-ranging effort to present the Red Army and its political leadership with dilemmas as Washington simultaneously modernized its nuclear and conventional forces, as well as he doctrines according to which they would fight. These efforts were complemented by political and economic warfare initiatives. The strategy was enabled by Reagan's willingness to fight for the necessary resource and engage in fundamental debates about defense and deterrence. Despite the purportedly bipartisan conviction that the United States faces a period of reinvigorated great power competition, there is too little appetite in Washington to contemplate a similar effort today.

Third, and more pointedly, Washington must avoid undermining its extended deterrence and assurance posture. For most of the post-Cold War period, a relatively benign security environment in which the United States enjoyed conventional military superiority allowed the United States to attempt and reduce the salience of nuclear weapons in its strategy.⁸² Those conditions no longer prevail. Although President Biden and other officials in his administration have previously advocated for "no-first use" policy,⁸³ the integrated deterrence concept should not serve as a backdoor to one. Such a development would risk

⁸⁰ L. Wainstein et al., *The Evolution of U.S. Strategic Command and Control and Warning, 1945-1972* (Arlington: Institute for Defense Analyses), p. 293.

⁸¹ See Rose, op. cit, Chapter 7, as well as William R. Van Cleave and S.T. Cohen, *Tactical Nuclear Weapons: An Examination of the Issues* (London: MacDonald and Jane's, 1978).

⁸² Lawrence Freedman and Jeffrey Michaels, *The Evolution of Nuclear Strategy* (London: Palgrave MacMillan, 2019), p. 549.

⁸³ Fred Kaplan, *The Bomb: Presidents, Generals, and the Secret History of Nuclear War* (New York: Simon & Schuster, 2020), pp. 229-231. See also The White House, "Remarks by the Vice President on Nuclear Security," January 11, 2017; available at <https://obamawhitehouse.archives.gov/the-press-office/2017/01/12/remarks-vice-president-nuclear-security>.

harming the credibility of U.S. nuclear deterrence and assurance, thus increasing the risks of both deterrence failure and nuclear proliferation.

Fourth, any theory of deterrence can only bear so much. The United States could not and will not be able to deter every instance of subversion gray zone aggression. Rather, it requires the capability of defeating such activities with the hope of conditioning adversary behavior in the future. It was in this spirit that participants at a 2017 workshop on integrated strategic deterrence cautioned against “expanding the deterrence problem set” when “what is required is a *more selective* approach to defining deterrence tasks” against “those problems for which it is most clearly suitable and against which it is most likely to be effective.”⁸⁴ Moreover, any deterrence strategy must be nested within a strategy for long-term competition against America’s adversaries, but should not be confused for one.⁸⁵

“Integrated deterrence” may be approaching its end as a headline-making rubric. Like the more than 60-year-old concept of “flexible response,” however, the concept speaks to the need to deter and compete with adversaries who threaten U.S. interests through an ever-evolving combination of domains and means. Contemporary policymakers will do well to revisit the successes and failures of their forebears as they face the challenges ahead.

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⁸⁴ *Exploring the Requirements of Integrated Strategic Deterrence*, op. cit., p. 2.

⁸⁵ This point is made by Christine M. Leah et al., “Integrated Deterrence: Grand Strategy’s Poor Cousin?”, *RealClearDefense*, December 31, 2022; available at https://www.realcleardefense.com/articles/2022/12/31/integrated_deterrence_grand_strategys_poor_cousin_873155.html.



ANALYSIS

HOMELAND MISSILE DEFENSE RESPONDING TO A TRANSFORMED SECURITY ENVIRONMENT

Robert G. Joseph and Peppino A. DeBiaso

Introduction

The United States is approaching an inflection point on homeland missile defense that is sparking a debate over the future direction of the program and mission. As a result of rapid progress by potential nuclear adversaries, missile threats to the American homeland are quickly outpacing the current and planned capacity and capabilities of U.S. missile defenses. If the United States is to reverse this trend, it must decide how best to adapt its missile defense posture to better account for new technologies, advanced capabilities and a more volatile strategic environment.

There is growing unease about the ability of the homeland missile defense “program of record,” narrowly focused on the development of a single new land-based interceptor, to stay ahead of the ICBM threat from North Korea and, in the likely near future, Iran. In the case of the former, the missile and nuclear threat is expanding faster than anticipated. Given the likely decade long development and fielding of the Next Generation Interceptor (NGI), this threat will almost certainly create a window of vulnerability by 2030. Equally important, the current missile defense program lacks the technology and capability development efforts that could contribute to countering the rising danger of coercive threats from Russia and China, as witnessed by Moscow’s warnings that it is prepared to use nuclear weapons in its war on Ukraine to prevent defeat and the more oblique but still clear threats by Beijing to employ nuclear weapons in a Taiwan conflict.¹ The threat of such limited nuclear use, occurring below the threshold of large-scale attacks, is calculated to persuade U.S. leaders that the risks of responding to aggression are not worth the costs, including the prospect of further escalation.

This paper considers the timeframe of the next five years and beyond, identifying areas where the United States should re-focus its missile defense efforts to ensure the protection of the nation from both rogue state missile attack and peer state coercive threats. Regarding the latter, although the Biden Administration has stated its intention to do everything possible to strengthen deterrence against such threats, it has ruled out defending against

This article draws on Peppino DeBiaso and Robert Joseph, “U.S. Homeland Missile Defense: Charting A Different Course,” *Information Series*, No. 585 (Fairfax, VA: National Institute Press, May 6, 2024).

¹ Alexander Khrebet, “Russia’s Medvedev threatens to nuke US, UK, Germany, Ukraine if Russia loses occupied territories,” *Kyiv Independent*, February 18, 2024, available at <https://www.msn.com/en-us/news/world/russia-s-medvedev-threatens-to-nuke-us-uk-germany-ukraine-if-russia-loses-occupied-territories/ar-BB1itM67>. Also see Matthew Kroenig, “Deliberate nuclear use in a war over Taiwan: Scenarios and considerations for the United States,” Atlantic Council, September 2023, available at <https://www.atlanticcouncil.org/wp-content/uploads/2023/10/Kroenig-Deliberate-Nuclear-Use-in-a-War-over-Taiwan.pdf>.



Russian and Chinese missile attack on the U.S. homeland.² This position is based on the counterfactual view that deploying defenses, even moderately scaled defenses, against peer state threats would be destabilizing, possibly igniting an arms race. In fact, deploying defenses to undermine an adversary's contemplated resort to limited nuclear use, thus averting the risk of nuclear coercion, would add significantly to deterrence and stability.

To outline a path that could achieve this goal, the paper first identifies significant trends within the arsenals of U.S. principal rivals characterized by: 1) an enduring hostility with regional opponents such as North Korea and Iran who continue to move forward with their nuclear weapons program while developing increasingly capable longer-range missiles; and 2) an intensifying geopolitical rivalry with Russia and China, both of whom are demonstrating a propensity for confrontation that includes the prospect of nuclear weapons threats in order to force the United States to accept increased risk when responding to aggression.

The paper then outlines program and capability steps that can be pursued to bring missile defenses into alignment with a steadily deteriorating security environment. Every administration proclaims that protecting the American people from missile attack is their first priority. But this commitment can only be realized if major changes are made to the U.S. missile defense posture. To move in this direction, the United States must reorient its missile defense strategy to pursue new capabilities to deter and defeat attacks against the homeland. This is achievable. It does not require major technological breakthroughs or massive budget outlays. It requires, above all else, a change in policy. In this regard, the paper seeks to inform the ongoing debate over the future of the homeland missile defense mission by offering a range of measures decision makers should take.

An Erratic Post Cold War Legacy

Homeland missile defense has always been impacted by politics and ideology. President George H.W. Bush, building on President Reagan's Strategic Defense Initiative, initiated the development of the GPALS (Global Protection Against Limited Strikes) program in 1991. It consisted of a combination of ground-based and space-based interceptors and sensors intended to provide layered protection against threats of up to 200 warheads launched from any source. The Clinton Administration cancelled all programs designed to develop more advanced defenses. It declared the ABM Treaty, which prohibited the defense of the U.S. homeland, to be the "cornerstone of strategic stability."

The foundation of today's approach to missile defense was set more than twenty years ago by the George W. Bush Administration. President Bush withdrew the United States from

² See, for example, Executive Office of the President, Office of Management and Budget, "Statement of Administration Policy H.R. 2670—National Defense Authorization Act for Fiscal Year 2024," July 10, 2023, available at <https://www.whitehouse.gov/wp-content/uploads/2023/07/H.R.-2670-NDAA.pdf>. The White House reiterated its "strong" opposition to potential congressional legislation to expand homeland missile defense policy "in a way that would signal intent to develop U.S. homeland missile defenses to counter large intercontinental-range, nuclear missiles threats such as those fielded by the People's Republic of China (PRC) and Russia."

the ABM Treaty in 2002, in accordance with the provisions of the Treaty, and achieved initial operational deployment in 2004 of the Ground-Based Mid-Course Defense system (GMD) with ground-based interceptors (GBIs) at Fort Greely, Alaska and Vandenberg Air Force Base, California. The stated goal was to develop and deploy missile defenses to defend against threats from rogue states, especially North Korea. The threat was assessed to be small numbers (“handfuls”) of relatively unsophisticated missiles. At the time, Russia and China were not considered potential adversaries.

Each successive administration has stated its commitment to “stay ahead” of the rogue state threat to prevent an attack on American soil, but none has taken the measures needed to do so. The Obama Administration, while declaring defense of the homeland against missile attack to be its top priority, ended most of the interceptor and sensor programs designed to develop the next generation of capabilities needed to stay ahead of the threat. This included the Multiple Kill Vehicle (MKV), the Kinetic Energy Interceptor (KEI), the Precision Tracking Space System (PTSS), and the Airborne Laser (ABL) weapon system. It also cancelled the Bush Administration’s plan for a so-called “third GBI” site in Europe as well as its own program, the SM3-IIB, intended to counter intercontinental-range ballistic missiles (ICBMs) launched from regional adversaries such as Iran. The result was an actual reduction in the planned size of the GBI force. The Obama Administration, like the Clinton Administration, saw U.S. missile defense capabilities as a potential bargaining chip to entice Russia to reduce its offensive capabilities.

The Trump Administration also declared homeland defense to be a priority but did not substantially improve U.S. capabilities beyond continuing the Obama Administration’s plan to field a newer ground-based interceptor.³ Like its predecessors, the Biden Administration has emphasized the commitment to defending the nation against the expanding North Korean missile threat but has taken no new measures to uphold that commitment. Reports also suggest missile defenses may again come into play as a bargaining chip if, in the now unlikely event, Moscow agrees to arms control negotiations beyond New START.

Also significant is what each administration chose not to do:

- All have adopted a policy of intentionally designing GMD to avoid any capability to defend against Russian and Chinese attacks on the U.S. homeland. Deliberately ruling out defense against Russian and Chinese strategic forces has all but eliminated the pursuit of new and innovative technology and capability pathways. No distinctions have been made between defending against a massive attack and more limited threats such as those made over Ukraine and Taiwan.
- All have failed to implement “spiral development”—that is, developing and incorporating new technologies on a systematic and continual basis—to stay ahead of the rogue state threat. Since the initial deployment in 2004, only sporadic and incremental improvements have been made to the GMD system.

³ The Trump Administration continued to carry forward the Obama Administration’s effort to build a new “front end” for the GBI known as the Redesignated Kill Vehicle (RKV). When the RKV encountered technical issues in 2019, it was cancelled and a new missile and kill vehicle, the Next Generation Interceptor, became the program of record system.

- All have failed to invest meaningfully in advanced technology development efforts required to adapt the homeland defense posture to evolving threats. This is especially true for capabilities such as space-based interceptors and directed energy weapons. These areas have been treated largely as “science projects” rather than as promising technologies to counter real-world threats.

The Shifting Threat and Geopolitical Context

Today’s security environment is undergoing a perilous transformation. It is characterized by deepening military cooperation among autocratic powers who are increasing the numbers and sophistication of existing missile systems, adding new types of missiles, and integrating these weapons into their strategies for confrontation and conflict with the United States and its allies.

One pacing trend is North Korea. Its ballistic missile arsenal is growing in numbers and sophistication, outpacing projections.⁴ Over the last several years, Kim Jong Un has presided over multiple military parades in which the most prominent weapons on display have been ICBMs with the ability to strike the American homeland. These include at least eleven Hwasong-17 missiles on transportable erector launchers and five additional launchers with canisters reportedly representing mockups of solid fueled long-range missiles under development. In 2023 alone, North Korea conducted five flight tests of its ICBMs, including the Hwasong-15 and Hwasong-17 liquid-propellant ICBMs as well as its new solid-propellant road-mobile ICBM, the Hwasong-18. Once fielded, these new missiles will represent a major advancement in the threat as their greater mobility, aided by the development of solid rocket boosters, will further complicate the already difficult challenge of destroying them “left of launch.”⁵ In turn, their improved survivability will place even greater reliance on the ability to destroy these missiles “right of launch.”

The numbers and types of missiles observed are a further indication that the North is expanding its force to undermine American defenses and hold the homeland at risk.⁶ Accompanying this growth in missile capabilities is a rapid increase in the North’s nuclear weapons arsenal. Kim JongUn has directed that the weapons program should have first priority and should grow at the maximum speed, an order that is now codified in that state’s constitution.⁷ A recent RAND report assesses that the North may have the capability to

⁴ John Grady, “NORTHCOM: U.S. Needs New Ballistic Missile Interceptor by 2028 to Keep Pace with North Korea,” *USNI News*, March 25, 2022, available at <https://news.usni.org/2022/03/25/northcom-u-s-needs-new-ballistic-missile-interceptor-by-2028-to-keep-pace-with-north-korea>.

⁵ On December 18, 2023, North Korea successfully launched a solid fuel, road mobile Hwasong-18 ICBM—with an assessed range of close to 10,000 miles.

⁶ Christy Lee, “Experts: North Korea’s New ICBM Poses Challenges to US Missile Defense,” *VOA*, March 16, 2022, available at <https://www.voanews.com/a/experts-north-korea-s-new-icbm-poses-challenges-to-us-missile-defense-/6487640.html>.

⁷ Jon Herskovitz, “North Korea Amends Constitution to Enshrine Permanent Growth of Nuclear Arsenal,” *Time*, September 27, 2023, available at <https://time.com/6318150/north-korea-exponential-growth-arsenal-constitution/>.

expand its stockpile to some 200 weapons by the end of the decade.⁸ If so, the North Korean stockpile could approach that of the UK or France.

The expansion of the North's long-range missile and space launch capabilities, which is being aided by Russian assistance,⁹ puts new pressure on U.S. defenses to protect the homeland. These defenses were designed two decades ago for a smaller and less advanced threat, not the larger force being built by North Korea today. Put simply, unless additional advanced capabilities are pursued beyond the current program of record, the threat from North Korea will further outpace the U.S. ability to defend against it.

A second pacing trend that will add to this challenge is Iran, a virtual nuclear weapon state today, reportedly with the ability to produce several nuclear bomb's worth of fissile material in a matter of weeks.¹⁰ Possessing the largest missile force in the Middle East and building on its space launch vehicle program, which it is using to advance its ICBM program, the Iranian long-range nuclear missile threat will likely arise quickly when the regime takes the political decision. Its partnerships with North Korea and Russia leave little doubt that Tehran, like Pyongyang and Moscow, will seek to acquire the ability to hold American cities hostage.

The third trend is the prospect of Russian and Chinese limited coercive nuclear threats to constrain the ability of the United States to assert its security interests. Both countries are developing strategies for confrontation that include the threat of limited nuclear escalation to deter U.S. intervention or to compel the United States to disengage to bring an end to a crisis or conflict on advantageous political-military terms. Moscow's doctrine of applying nuclear force early and in an incremental manner, sometimes referred to as "escalate to win" or "escalate to deescalate," and Beijing's threats of nuclear use in a Taiwan crisis, are creating tighter linkages between regional conflicts involving those states, and nuclear coercive threats to the U.S. homeland employed to shape the escalation of potential hostilities. Russia is of particular concern. It envisions the prospective escalation to nuclear strikes—but below the threshold of large-scale attacks to avoid eliciting a reciprocal U.S. response—to force Washington to halt its involvement in an ongoing conflict with Russia. Moscow is carrying out this strategy today with coercive nuclear signaling to induce fear and impede the freedom of political and military action on the part of the United States and its allies.

⁸ Bruce W. Bennett, Kang Choi, Myong-Hyun Go, Bruce E. Bechtol, Jr., Jiyoung Park, Bruce Klingner, Du-Hyeogn Cha, *Countering the Risks of North Korean Nuclear Weapons*, RAND Corporation, April 2021, available at https://www.rand.org/content/dam/rand/pubs/perspectives/PEA1000/PEA1015-1/RAND_PEA1015-1.pdf.

⁹ On September 13, 2023, Kim Jong Un met Russian President Putin at the Vostochny space launch facility in the Russian Far East. Asked whether Russia would help North Korea build its satellite launch capabilities, Putin replied, "That's why we came." See Guy Faulconbridge and Soo-Hyang Choi, "Putin and North Korea's Kim discuss military matters, Ukraine war and satellites," *Reuters*, September 13, 2023, available at <https://www.reuters.com/world/nkoreas-kim-meets-putin-missiles-launched-pyongyang-2023-09-13/>.

¹⁰ One recent assessment concludes that Iran possesses sufficient weapons-grade uranium to construct its first nuclear weapon within a week and a total of six within a month. See "The Iran Threat Geiger Counter: Reaching Extreme Danger," *Institute for Science and International Security*, February 2024, available at https://isis-online.org/uploads/isis-reports/documents/Iran_Threat_Geiger_Counter_February_2024_FINAL.pdf.

As China moves toward nuclear parity, accompanied by the rapid expansion of its long-range strategic weapons, it is also likely to incorporate into its strategy a larger role for limited nuclear use. Recent Chinese military writings discuss the utility of “controlled use” of small-yield nuclear weapons for the purpose of “warning and deterrence.”¹¹ The transformation, in terms of size, diversity and sophistication, of Beijing’s nuclear missile force will allow its leadership, in future hostilities over disputed islands in the South China Sea, Taiwan, or its support for the North in a war on the Korean Peninsula, to wield coercive threats of limited nuclear escalation calculated to compel an end to a militarized crisis or conflict on terms favorable to China.

Both of these trends undercut the viability of the current U.S. policy approach to missile defense—one that is increasingly out of alignment with the shifting dynamics of great power confrontation and its implications for homeland defense. If these threats are to be reliably deterred and countered, U.S. missile defense policy and posture must be fundamentally changed. If not, the result will be the accelerating obsolescence of U.S. defenses resulting in an inability to protect the nation. If U.S. adversaries, both rogue and peer states, believe they can hold the United States hostage, they may feel they have a green light for aggression.

Prospective Measures to Align Missile Defense to the New Security Environment

Against the backdrop of a strategic environment that has worsened over the past two decades, it is prudent to “relook and refresh” the requirements for homeland missile defense. This should include the examination of new and alternative concepts and capabilities to harness current and emerging technologies necessary to defend against missile attack well beyond 2030.

In this connection, there are two interrelated lines of effort to align the defense of the United States with the security environment it now confronts. The first is to identify a set of relatively *quick fixes* the United States could make over the next several years to the current missile defense posture to halt its decline and strengthen its ability to effectively defeat missile threats by North Korea and potentially Iran. The second is to set out follow-on measures that can provide a capability to defend against the evolving missile arsenal of regional adversaries while also denying Russia and China confidence that they could blackmail the United States by threatening limited nuclear strikes.

Under these circumstances, missile defenses could fortify deterrence, in concert with nuclear forces, by undermining the confidence of adversaries that they could readily achieve the political and military objectives of a limited attack. For rogues, this lack of confidence may convince the leadership that the risk of a failed attack, combined with the certainty of U.S. retaliation, outweighs any potential gain. For peers, sowing unpredictability and doubt

¹¹ Department of Defense, *Military and Security Developments Involving the People’s Republic of China* 2023, p. 112, available at <https://media.defense.gov/2023/Oct/19/2003323409/-1/-1/1/2023-MILITARY-AND-SECURITY-DEVELOPMENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA.PDF>.

into their planning for limited attack could compel the leadership to choose either to back away from a decision to initiate or escalate hostilities or to increase the attack size to a level that could resemble a much larger attack with the attendant risk of escalation to a large-scale nuclear exchange. In short, defenses provide deterrence and denial benefits at the lower end of the escalation and limited conflict spectrum while nuclear forces would continue to threaten intolerable costs at the higher end.

For purposes of this assessment, the high end of “limited” ballistic missile threats is defined as up to 200 warheads delivered on no more than 20 long-range ballistic missiles. The capability to defend against ballistic missile attacks up to this size could provide protection against: (1) any likely full-scale North Korean attack; (2) any likely full-scale near simultaneous attack by North Korea and Iran; (3) coercive strikes by Russia or China acting alone; and (4) coordinated coercive attacks by Russia and China acting together.

Initial Fixes

There are a number of steps that can be implemented over the next several years that would help ensure the GMD system retains its ability to counter current threats while hedging against any delay in the development of the NGI program or an unforeseen expansion of North Korea’s or Iran’s ICBMs. These measures center on evolving GMD towards an *expanded mixed interceptor fleet* of improved GBIs, and new NGIs when it does become available, rather than replacing GBIs with NGIs, as has been often envisioned. There are several elements to this approach.

First, the United States should maintain its extant GBI interceptor inventory, which continues to provide protection benefits. Despite the lack of DoD urgency in enhancing their capability, today’s GBIs contribute to interceptor capacity (i.e., numbers) essential to defending against North Korea’s growing ICBM arsenal. Moreover, the ability of the GBIs to defeat ICBMs is improving as they are integrated with newer and more capable sensors such as the Long-Range Discrimination Radar (LRDR) in Alaska. LRDR provides enhanced warhead discrimination, precision tracking and warhead kill assessment to the GBIs that make them more effective against incoming missiles.

Additionally, GBI’s potential to intercept more capable ICBMs will be further augmented as the Space Force begins deploying the Proliferated Warfighter Space Architecture consisting of a multi-layered missile tracking satellite network. This network will provide persistent global detection, warning, and precision tracking of advanced missile threats, including hypersonic weapons launched on ballistic missiles, generating fire-control quality data to allow interceptors to engage hostile missiles. In support of this effort, the Space Development Agency (SDA) is expected to begin launching developmental satellites in 2026 that could, by the end of the decade, provide improved tracking and fire control support to the GMD system from space sensors. Such action is overdue and should be supported by adequate resourcing, including stable funding.

Second, MDA is currently making minor system upgrades to GBIs through the Service Life Extension Program (SLEP). These, however, are limited to maintaining the reliability of

certain components for the older and less capable GBI configurations carrying kill vehicles known as CE-I. A more beneficial SLEP plan would be to upgrade all 44 GBI kill vehicles to the latest interceptor system configuration, designated as CE-II Block 1. Today, MDA is funding only a portion of the GBI fleet with these upgrades which, as demonstrated in recent flight tests, improve the performance of the interceptors against evolving missile threats.¹² The production line for the CE-II kill vehicle would likely need to be restarted, but that appears to be feasible within the timeframe considered here. Bringing the entire GBI fleet up to the newest configuration extends its role in support of homeland defense well beyond 2030.

Third, DoD should take a fresh look at the requirement for an additional missile defense interceptor site located on the East Coast. It has been recognized for some time that the deployment of a third GBI site could provide additional time, or battlespace, beyond the Ft. Greely and Vandenberg sites, equating to more “shot opportunities” for GBIs to defeat potential Iranian ICBMs targeting the eastern United States. Moreover, resources associated with building a site on the East Coast would be less than developing a new missile field in Alaska if transportable launchers are used rather than fixed underground silos that add to construction costs. DoD has examined the transportable concept in the past and concluded it is viable. Transportable GBI launchers also provide additional flexibility to relocate interceptors to southern locations in the United States if needed, for example, to counter missile threats approaching from southern trajectories like China’s Fractional Orbital Bombardment System (FOBS).¹³

Lastly, the United States can upgrade the sea-based SM-3 IIA missile to serve as an “underlayer” to the GMD system, which could provide dozens of additional interceptors to augment the protection of the homeland. While the SM-3 IIA interceptor does not compare in capability to the GBI, it can usefully complement the GMD system in times of national emergency. Aegis ship-based SM-3 IIAs, operating as an “underlayer” to the GMD system, would provide a “mobile surge” capacity during a conflict, expanding the number of interceptors available to protect the United States. In 2020, DoD tested a modified SM-3 IIA against a missile target and demonstrated the feasibility of destroying an ICBM. However, the Biden Administration terminated MDA’s plans to complete the development of the program in 2021 over likely policy concerns that Russia would oppose an expansion of U.S. homeland defenses.¹⁴

All of the proposals identified above build on current programs or plans examined by DoD in recent years. As for funding, the costs must be placed in their proper context. Today,

¹² Missile Defense Agency, *Homeland Missile Defense System Conducts Successful Intercept of Target*, December 11, 2023, available at <https://www.mda.mil/news/23news0006.html>.

¹³ Chandelis Duster, “Top military leader says China’s hypersonic missile test ‘went around the world,’” *CNN Politics*, November 18, 2021, available at <https://www.cnn.com/2021/11/17/politics/john-hyten-china-hypersonic-weapons-test/index.html#:~:text=China's%20test%20of%20a%20hypersonic,attack%20on%20the%20United%20States>.

¹⁴ Admiral Hill, Director of MDA stated at the time that there were no technical barriers to SM-3 IIA as an underlayer to GMD, but Biden Administration officials made clear “there are some very serious policy implications, and so we want to make sure that we get the policy angles right.” Jen Hudson, “How will the Pentagon close the homeland missile defense gap?” *Defense News*, August 9, 2021.

MDA spends about 30 percent (~\$3.5B) of its annual budget on activities in direct support of homeland missile defense. This represents less than one-half of one percent of DoD's total budget. Resourcing the activities above, even if it increased MDA's yearly funding for homeland missile defense by 50 percent, would amount to less than one percent of DoD's total budget.

Follow On Measures

While the above measures offer options to remedy shortfalls in the current posture against evolving missile threats from rogue states, they are likely insufficient to undermine Russia's and China's calculations over possible limited nuclear use. As Russia's war in Ukraine demonstrates, nuclear coercion is an instrument that will be wielded by strategic rivals seeking to prevail in crises and conflicts in the coming decades. The ability to defeat limited strikes on the homeland would help erode the capacity and hence the credibility to threaten such strikes in the first place.

There are a range of initiatives and investments that could provide future decision makers options to counter Russian and Chinese coercive threats. These include both sensor and advanced intercept capabilities.

As the United States reshapes its broader military space architecture, it has an opportunity to create a more resilient and comprehensive foundation for sensors to augment the effectiveness of today's missile defenses while also supporting advanced systems to defeat more complex future threats. The most significant enhancement to the GMD system over the next decade, beyond the investments already described, will likely be achieved through the fielding of space-based sensors. Space is the only domain capable of providing persistent and global observation for precise tracking of ballistic and maneuvering hypersonic missiles and discrimination (between warheads and decoys), regardless of the origin of launch.

Defeating the emerging advanced rogue state and limited peer missile threats requires precise tracking and discrimination. The Space Force's plan to build satellite prototypes by 2026 to track ballistic and hypersonic missiles from medium earth orbit offers for the first time the ability for persistent tracking of complex threats.

Regarding development of space sensors that can distinguish warheads from decoys in the mid-course phase of flight, there currently are no significant programs underway beyond minor experiments to test sensors onboard unmanned aerial vehicles (UAVs). Efforts to develop a discrimination space sensor (DSS) have suffered from a chronic lack of funding and sustained program support over the past ten years. For this to change, DoD must treat the issue of discrimination as an essential component of the missile defense mission and develop a durable R&D program focused on maturing DSS technology over the next decade. The ability to do so is a key technology enabler in countering more complex missile threats.

As part of a transition beyond the legacy of a missile defense sensor architecture based largely on the surface of the earth, the United States also should better leverage airborne platforms for enhanced missile tracking. For example, over the next decade, the United States

and its allies will field and operate several thousand 5th generation tactical fighters like the F-35 that possess sensors capable of detecting and tracking the infrared (IR) signatures of boosting missiles at extended ranges. While the Air Force may be reluctant to take on an additional mission for the fleet, DoD should nevertheless require that this tracking data be incorporated into both homeland and regional missile defense architectures. Furthermore, MDA has tested sensors on UAVs to track boosting missiles; and DoD is investigating the use of drones to track hypersonic weapons.¹⁵ However, steps must be taken to pursue an integrated sensor network, in which airborne platforms augment the space-based missile tracking constellation, as well as the extant ground-based radar network, thereby providing an additional layer of sensors to track missiles, including in the boost/ascent phase of flight.

More importantly, as the United States considers how to adapt to a threat environment that is almost certain to deteriorate over the next decade, it will be necessary to identify a path to a multi-domain missile defense framework with different mixes of interceptor technologies and systems. There are several broad areas that should be pursued in this regard.

Significant progress is being made outside of MDA, for example, in the development of autonomous airborne platforms, which show promise in support of the missile defense mission. These platforms are now demonstrating the ability to operate with extended range and endurance across multiple regions and at altitudes beyond the reach of enemy air defenses. At the same time, there are advances occurring in emerging high speed kinetic interceptor technology and directed energy weapons that may lead to new operational concepts to engage hostile missiles early in flight. For example, despite only modest funding, defensive hypersonic missile systems that could support a UAV boost phase mission are beginning to mature. DARPA has been supporting efforts to develop a new hypersonic interceptor prototype as part of its *Glide Breaker* program to engage the high-speed boost glide weapons China and Russia are building. MDA is also conducting a similar effort through its Glide Phase Intercept technology program for deployment on naval platforms, which can be deployed globally. Innovative application of autonomous airborne platforms combined with emerging high speed and long-range hypersonic interceptors offer the possibility of a new defensive boost/ascent-phase layer capable of thinning out adversary missile salvos.

High energy laser (HEL) technologies for air and missile defense also have advanced in recent years despite the lack of attention they have received within MDA. The Army, Navy and Air Force have been developing 300-kilowatt range HELs. The Army and Air Force, for example, are now testing 300-kilowatt range ground-based laser systems while the Navy is examining a ship-based variant. When fielded, these weapons offer new opportunities to protect the homeland against advanced long-range cruise missiles of the type Russia and China are developing to reach targets within the United States.¹⁶ More importantly, recent

¹⁵ Courtney Albon, "'SkyRange' uncrewed aircraft to speed hypersonic testing by 2024," *C4ISRNET*, September 16, 2022, available at <https://www.c4isrnet.com/unmanned/2022/09/16/skyrange-uncrewed-aircraft-to-speed-hypersonic-testing-by-2024/>.

¹⁶ *Fact Sheet: 2022 National Defense Strategy* (Washington, D.C.: Department of Defense), March 28, 2022, available at <https://media.defense.gov/2022/Mar/28/2002964702/-1/-1/1/NDS-FACT-SHEET.PDF>.

progress in high energy lasers for the air and cruise missile defense mission is beginning to advance the technology base for more powerful lasers in the megawatt class that would be necessary to counter incoming ballistic missiles.¹⁷ Progress to further mature the technology will, however, require investments in research and development to scale laser power to the megawatt class.

Despite decades of reluctance spanning multiple administrations, the development of space-based defenses is indispensable to achieving a mix of cost-effective capabilities that can be scaled to defeat the emerging complex threats from rogue and peer states. Simply expanding current programs will not be effective in the long term. Space is unique in its ability to provide global coverage of missile launches with multiple opportunities to intercept warheads as they transit to their targets. Additionally, space-based defenses can engage a broad range of offensive missiles, including ballistic missiles, hypersonic weapons launched from ballistic missiles, and FOBS. They may also be able to defend the network of U.S. military satellites, which are increasingly vulnerable to Russian and Chinese counterspace weapons. In this context, a space layer can work synergistically with land- and sea-based defenses to create a highly effective, multi-domain, layered defense to complicate and undermine the offensive attack planning calculus of U.S. rivals.

Much has changed since the United States last examined space-based kill capabilities in a homeland defense architecture. Since then, there have been extraordinary improvements in commercial technology and non-missile defense sectors applicable to space defenses. For example, marked progress has been made in crucial areas underpinning space-based kinetic energy (KE) interceptors, including precise sensor tracking, micro processing capability, space communication networks, miniaturization of satellite components, artificial intelligence to support the operation of large satellite constellations, and substantially reduced space launch costs. These disparate advanced technologies will need to be more tightly integrated into U.S. missile defense R&D efforts if space-based defenses are to be successfully deployed.

Overcoming the Traditional Resistance to Effective Defenses

Any serious consideration of space defenses will be opposed by those who have long argued that such weapons will lead to a “destabilizing militarization of space.” However, space is already an arena marked by steadily expanding Chinese and Russian military space and counterspace operations. Both treat space as a war fighting domain integral to any campaign to inhibit U.S. intervention and power projection. In order to disrupt and degrade U.S. operations in space, they continue to invest heavily in counterspace systems, including terrestrial-based lasers/directed-energy weapons, on-orbit grappling satellites, and space-based kinetic anti-satellite (ASAT) missiles that can destroy satellites from low earth to

¹⁷ For example, DoD is funding industry efforts to develop HEL technology that exceeds 500 kilowatts. Sydney J. Freedburg, “‘Mind-Boggling’: Israel, Ukraine are Mere Previews of a Much Larger Pacific Missile War, Officials Warn,” *Breaking Defense*, April 17, 2024.

geosynchronous orbits.¹⁸ Recent reports of Russia's development of an ASAT weapon which may have a nuclear payload to generate electromagnetic pulse (EMP) effects is but the latest indication that strategic rivals are preparing for combat operations in space.¹⁹ The strategic context of space defenses has thoroughly shifted over the past decade. As the senior official responsible for space policy in the Pentagon has remarked, "...space is essential to how we compete and fight in every domain... [it is] essential to the U.S. way of war."²⁰ Just as the United States is adapting and reshaping its broader space strategy, it must also overcome self-imposed and obsolescent policy barriers denying it access to the unique benefits a space defense layer could make to deterring and if necessary defeating limited nuclear missile attacks.²¹

Additionally, in considering an expanded missile defense posture, especially one that includes defensive interceptors deployed in space, it will be argued from some quarters in the defense establishment that the United States should embrace alternative approaches to countering long-range missile threats to the homeland. This is particularly evident in recent narratives suggesting that greater emphasis ought to be placed on approaches favoring "left of launch/attack operations" rather than on active missile defense.²² Improving the ability to conduct prompt, precise, kinetic attack operations, as well as non-kinetic missions such as cyber-attacks, against enemy missiles before they can be launched, could provide an additional tool to cope with mounting threats. However, shifting to a homeland missile defense strategy that fails to keep pace with even the North Korean ICBM threat, while instead increasingly relying on a left of launch approach, has significant limitations that increase the risk of failure to defend American cities from nuclear attack.

During the Cold War, the United States investigated without success various left of launch techniques to detect, track, and kill Soviet road-mobile and rail-mobile ICBMs once they departed their staging areas. The challenge of targeting mobile missiles was further highlighted during the 1991 Gulf War with Iraq. The U.S.-led coalition conducted some 3,000 left of launch air sorties against Iraqi mobile short-range ballistic missiles (SRBMs). It failed

¹⁸ David Vergun, "Official Details Space-Based Threats and U.S. Countermeasures," *DOD News*, April 26, 2023, available at <https://www.defense.gov/News/News-Stories/Article/Article/3375577/official-details-space-based-threats-and-us-countermeasures/>.

¹⁹ Julian E. Barnes, Karoun Demirjian, Eric Schmitt and David E. Sanger, "Russia's Advances on Space-Based Nuclear Weapon Draw U.S. Concerns," *The New York Times*, February 14, 2024, available at <https://www.nytimes.com/2024/02/14/us/politics/intelligence-russia-nuclear.html>.

²⁰ Remarks by John F. Plumb, Assistant Secretary of Defense for Space Policy, cited in David Vergun, op. cit.

²¹ See for example, *America's Strategic Posture: The Final Report of the Congressional Commission on the Strategic Posture of the United States*, October 2023, available at <https://www.ida.org/-/media/feature/publications/a/am/americas-strategic-posture/strategic-posture-commission-report.ashx>. The Bipartisan Commission found that the U.S. "must look at new approaches to achieving U.S. missile defense goals, including the use of space-based and directed energy capabilities, as simply scaling up current programs is not likely to be effective" (p. 67).

²² See for example, Executive Office of the President, Office of Management and Budget, "Statement of Administration Policy S. 4543—James M. Inhofe National Defense Authorization Act for Fiscal Year 2023," available at <https://www.whitehouse.gov/wp-content/uploads/2022/10/S4543-NDAA-SAP.pdf>; Jon Harper, "Pentagon's Hicks wants more focus on cyber, EW capabilities for missile defense," *FedScoop.com*, May 6, 2022, available at <https://fedscoop.com/pentagons-hicks-wants-more-focus-on-cyber-ew-capabilities-for-missile-defense/>.

to achieve a single successful strike. While the United States is rightly making investments in the prompt strike weapons and Intelligence, Surveillance and Reconnaissance (ISR) required to find, track, and kill mobile missiles, the left of launch mission will remain challenging for the foreseeable future. Potential opponents are heavily investing in long-range missiles which are more survivable as a result of their mobility and faster to deploy due to their solid-propellant technology. They are also improving methods of concealing the location and operation of these weapons through measures such as proliferated underground facilities and randomized launch locations spread across large swaths of territory. This makes timely intelligence warning and missile geo-location, which are essential for effective pre-launch targeting, problematic.

The utility of left of launch operations is further circumscribed by the inevitable political constraints that arise from the condition that the best opportunity to kill an adversary's ICBMs is before the conflict commences when missiles are presumably at known locations. Once ICBMs start to "flush" from their staging areas it will be, in the words of the senior military commander in the Indo-Pacific, "incredibly hard" to locate and destroy them prior to launch.²³ This can place an almost insurmountable burden on a president, both domestically and internationally, to initiate pre-emptive military action prior to the onset of open hostilities. Other prominent non-kinetic left of launch tools, including cyber operations intended to disrupt an adversary's ability to fire his missiles, raise a different set of challenges. For example, it may not be known if the "malware campaign" against an enemy's missile force has been detected and blocked. The ability to reliably assess the efficacy of this tool in degrading an adversary's missiles may only be possible *after* it begins launching ICBMs. There is a near incalculable uncertainty built into such operations, which carries the risk that such measures could fail. For these reasons, even as the kinetic and non-kinetic left of launch capabilities improve, the United States will continue to need effective and advanced missile defenses as a central component of its counter-missile strategy.

Lastly, opposition to the revised approach to missile defense outlined in this article will also come from those who have for decades opposed any effective defense of the U.S. homeland on the theoretical grounds that such defenses will pose a near existential threat to Russia's and China's nuclear forces, resulting in a "destabilizing" nuclear arms race. This contention is not supported by the facts.²⁴

First, Russia possesses, and China will in the not-too-distant future, a large and sophisticated strategic weapons posture that is capable of overwhelming U.S. missile defenses, even in an expanded form. This is due to the sizable and growing number of

²³ Remarks by Adm. John Aquilino, head of the U.S. military's Indo-Pacific Command, cited in Elizabeth Palmer, "North Korea test launches apparent long-range missile designed to carry nuclear warhead, hit U.S. mainland," *CBS News*, December 18, 2023, available at <https://www.cbsnews.com/news/north-korea-missile-launch-icbm-hwasong-us-mainland-range-south-korea-japan/>.

²⁴ See, for example, Matthew Costlow, "The Missile Defense 'Arms Race' Myth," *Strategic Studies Quarterly*, Spring 2021, pp. 3-9, available at https://www.airuniversity.af.edu/Portals/10/SSQ/documents/Volume-15_Issue-1/Costlow.pdf; David Trachtenberg, Michaela Dodge, and Keith Payne, *The "Action-Reaction" Arms Race Narrative vs Historical Realities*, (Fairfax, VA: National Institute for Public Policy, March 2021), available at <https://nipp.org/wp-content/uploads/2021/04/Action-Reaction-pub.pdf>.

platforms and diverse types of weapons within their nuclear arsenals. These include long-range bombers and cruise missiles, hypersonic boost glide vehicles, land and sea-based intercontinental-range ballistic missiles, fractional orbital bombardment weapons and trans-oceanic undersea missiles that can be launched from multiple directions and multiple domains.

Second, Russian and Chinese objections to U.S. missile defenses must be placed in a more balanced context. Both Russia and China are pushing forward with a variety of active defense capabilities which are organized around the nation-wide integration of multiple air and missile defense systems to degrade an adversary's strategic air breathing systems and ballistic missiles. Moscow's strategic air and missile defense programs go back decades. Russia continues to develop and field nationwide air and missile defenses to counter advanced cruise missiles, ballistic missiles of all ranges, and hypersonic weapons. Russia has seen value in defending itself, including a limited capability against nuclear threats, both to enhance deterrence of a U.S. attack and to preserve the ability to respond effectively to such an attack. Similarly, China appears to recognize the deterrence and damage denial utility of national air and missile defenses and is making notable strides in this area.²⁵ Beijing's broad efforts, which include the development of exo- and endo-atmospheric kinetic energy warheads and the recent testing of a mid-course interceptor, are consistent with the aim of acquiring a layered missile defense system. Additionally, because of a decade-long commitment to the development of defensive capabilities to blunt threats to its homeland, China now "possesses one of the largest forces" of advanced strategic air and cruise missile defense systems in the world.²⁶

These developments suggests that Russia and China envision a *national* role for air and missile defense within their broader military strategies for conflict directed at augmenting their ability to discourage an American retaliatory response and, should deterrence fail, to provide a measure of protection and damage limitation to their respective homelands. Moreover, neither country seems particularly concerned about "destabilizing" the strategic balance with the United States. Nor do either country's missile defense activities appear driven by the size and character of U.S. strategic forces, which have declined in size and not expanded in capability over the last three decades.

The recommendations for U.S. missile defenses outlined above would be doing nothing more than acknowledging the importance of protecting the homeland against limited threats regardless of their origin, a position long understood by Russia and, more recently it appears, China.

²⁵ Department of Defense, *Military and Security Developments Involving the People's Republic of China* 2023, op. cit.

²⁶ Ibid.

Conclusion

Both Russia and China, as well as regional rivals, are fielding ever more lethal missiles as they seek to both coercively deter, as well as prepare for conflict with, the United States. In so doing, they are outpacing the current and planned homeland missile defense posture. To redress the danger posed by these developments, it is essential to reject decades-old policies and legacy requirements underpinning homeland missile defense. To this end, the United States should be prepared to re-focus its approach to missile defense along a path that ensures, not an impenetrable shield, but rather an effective capability to protect the nation against the long-range missile threat from rogue states as well as limited peer state missile threats.

This should be accompanied by the pursuit of new and innovative concepts and capabilities to harness current and emerging technologies necessary to defend against missile attacks into and well beyond 2030. The assessment offered here identifies a range of program and capability steps that would provide future decision makers effective and affordable options to establish a more comprehensive, layered and resilient defense posture to protect the American people against the threat of nuclear missile attack.

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ANALYSIS

STRENGTHENING EXTENDED DETERRENCE AND ASSURANCE OR ALLIANCE DISSOLUTION: A TIME FOR CHOOSING

Keith B. Payne

Introduction

Washington's global system of alliances is facing extremely tough internal and external problems. These problems are neither fleeting nor prosaic; they are now structural and will require significant efforts to ameliorate. That harsh reality would matter little if alliances were unimportant to Western security. But they are the West's key advantage over an aggressive, authoritarian bloc, including a Sino-Russian entente, North Korea and Iran, that seeks to overturn the liberal world order created and sustained by U.S. and allied power. To maintain that advantage, Washington must recognize and respond to those threats, while resisting the usual anti-defense spending/anti-military themes of the "progressive" Left and the seeming neo-isolationism of some on the political Right.

U.S. defense budgets in decline when adjusted for inflation,¹ and a trend within parts of the Republican Party to oppose continuing military aid to Ukraine, are not lost on allies who fear for their security and are ultimately dependent on a seemingly reticent United States for their security. As threat conditions become increasingly severe and obvious, some allies, particularly those who are on the frontlines vis-à-vis Russia, China, and North Korea, understandably are increasingly alarmed.

Evidence of this alarm includes open allied discussions about acquiring independent nuclear capabilities—with the corresponding potential for a cascade of nuclear proliferation. Perhaps most surprising are open German and Japanese discussions of independent nuclear deterrence capabilities.² In Japan, the subject is tied directly to the continuing credibility of the U.S. extended nuclear deterrent and has moved from being politically taboo to an open public discussion.³ In February 2023, a Japanese defense study chaired by former military chief of staff Ryoichi Oriki reportedly suggested that "Japan ease its three nonnuclear principles that prohibit possessing, producing or allowing entry into Japan of nuclear weapons."⁴

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¹ Michael J. Boskin and Kiran Sridhar, "Biden's Budget Neglects the Military," *The Wall Street Journal*, March 15, 2024, p. A17, available at <https://www.wsj.com/articles/bidens-budget-neglects-the-military-huge-gap-in-american-strength-and-readiness-142ccc30>.

² See, for example, Eckhard Lübke and Michael Rühle, "Nuklearmacht Europa: Braucht Europa gemeinsame Nuklearwaffen? Ein Für und Wider," *Internationale Politik*, No. 1 (Januar/Februar 2024), pp. 110-113.

³ See, for example, Jesse Johnson, "Japan should consider hosting U.S. nuclear weapons, Abe says," *Japan Times*, February 27, 2023, available at <https://www.japantimes.co.jp/news/2022/02/27/national/politics-diplomacy/shinzo-abe-japan-nuclear-weapons-taiwan/>.

⁴ Hiroyuki Akita, "Why nuclear arms debate in South Korea cannot be underestimated: U.S. allies must think outside the



An alternative potential allied response to security threats is to move increasingly toward accommodating Moscow and/or Beijing. As contemporary power balances shift and fear among some allies grows, greater accommodation to China or Russia—and corresponding distance from the United States—may appear the most practicable option. Turkey appears to have been positioning itself between the West and Russia for years, while some allies appear to be serving Russia's interests from within NATO.⁵ In the Indo-Pacific, New Zealand deepens economic, trade, and cultural ties with Beijing.⁶

That some allies will hedge their geopolitical bets by seeking accommodations with Russia and/or China, and by distancing themselves from Washington, was demonstrated recently in statements by French President Macron and the European Commission's leadership.⁷ According to Macron, "strategic autonomy" must now be Europe's organizing principle;⁸ and the French ambassador reportedly has advised Canada to begin distancing itself from the United States, and stated that Ottawa must choose between the United States and Europe.⁹ As two prominent European commentators have observed, "... based on global American strategic supremacy, the very idea of autonomous European defense has long been considered detrimental to the vital transatlantic link. However, with global strategic challenges growing fast, this principle is no longer tenable."¹⁰

The manifest inconsistency in U.S. behavior important to allies has accelerated this problem. An Israeli analyst described the perception concisely: "The consensus in the region

box to counter new threats from North Korea," *Nikkei Asia Online* (Japan), May 5, 2023, available at <https://asia.nikkei.com/Spotlight/Comment/Why-nuclear-arms-debate-in-South-Korea-cannot-be-underestimated>.

⁵ Eric S. Edelman, David Manning, and Franklin C. Miller, "NATO's Decision Process Has an Achilles' Heel," *New Atlanticist*, March 12, 2024, available at <https://www.atlanticcouncil.org/blogs/new-atlanticist/natos-decision-process-has-an-achilles-heel/>.

⁶ See, for example, Laura Zhou, "China and New Zealand are a 'force for stability' in a turbulent world, says Foreign Minister Wang Yi," *South China Morning Post*, March 18, 2024, available at <https://www.scmp.com/news/china/diplomacy/article/3255852/china-and-new-zealand-are-force-stability-turbulent-world-says-foreign-minister-wang-yi>.

⁷ See for example, "Macron Says Europe Should Not Follow U.S. or Chinese Policy Over Taiwan," *Reuters*, in *U.S. News and World Report*, April 9, 2023, available at <https://www.usnews.com/news/world/articles/2023-04-09/macron-says-europe-should-not-follow-u-s-or-chinese-policy-over-taiwan>. See also, "After Macron, EU Chief Seeks 'Independent' China Policy, Says Abandon US' 'Confrontational' Approach," *Times Now (India)*, May 1, 2023, available at <https://www.timesnownews.com/videos/news-plus/after-macron-eu-chief-seeks-independent-china-policy-says-abandon-us-confrontational-approach-video-99916110>.

⁸ See Vivienne Machi, Tom Kington, Andrew Chuter, "French visions for an autonomous Europe proves elusive," *Defensenews.com*, May 9, 2023, available at <https://www.defensenews.com/global/europe/2023/05/09/french-vision-for-an-autonomous-europe-proves-elusive/#:~:text=EUROPE%20and%20WASHINGTON%20%E2%80%94%20After%20Russia,the%20continent%20standing%20alone%20militarily>.

⁹ Dylan Robertson, "Canada should link with Europe, surpass 'weak' military engagement, French envoy," *The Globe and Mail*, April 5, 2023, available at <https://www.theglobeandmail.com/politics/article-canada-should-link-with-europe-surpass-weak-military-engagement-french/>.

¹⁰ Maximilian Terhalle and Kees Klompenhouwer, "Facing Europe's nuclear necessities, Deterrence can no longer be seen as just a bipolar equation — and it's time NATO addresses this fact," *POLITICO Europe Online*, April 22, 2023, available at <https://www.politico.eu/article/facing-europe-nuclear-necessities-strategy-vulnerability-war-weapon/>.

is that the US has abdicated its role as the Superpower vis-à-vis the [Middle East].”¹¹ As allies respond to the reality of rising threats, if a trend toward increasing allied interest in independent nuclear capabilities and/or distancing themselves from the United States expands, sustaining U.S. global alliances will be problematic, to the degradation of U.S. security.

America’s experience with North Korea over the past two decades is instructive. During the period of unquestioned U.S. military superiority over any potential foe, Washington solemnly and repeatedly declared a nuclear-armed North Korea to be “unacceptable.” Yet, five consecutive administrations, Republican and Democrat, have done nothing effective to prevent North Korea’s deployment of nuclear weapons that can now target much of the world, including the United States. As a result, North Korea is a nuclear power that now must be deterred.¹²

U.S. officials and commentators have repeatedly offered confident assertions that the risk is minimal because the United States can reliably deter North Korea¹³—assertions based on little more than convenience, hope, and shallow guesswork. Simultaneously, Washington has incessantly pleaded with China to help de-nuclearize North Korea—a problem that Beijing has shown no interest in resolving. Mounting South Korean popular interest in independent nuclear capabilities is a direct consequence of this American failure to deal with a threat that Washington has declared, for more than two decades, to be “unacceptable.”

Russia seeks to recover hegemony in much of Europe, starting with Ukraine, and China is on track to be able to take Taiwan by force within a few years.¹⁴ Recent “leaked” Russian nuclear planning documents reveal a corresponding shockingly low Russian threshold for

¹¹ Shmuel Bar, “Self-perceptions and Nuclear Weapons,” *Information Series*, No. 558 (July 2023), available at https://nipp.org/information_series/shmuel-bar-self-perceptions-and-nuclear-weapons-no-558-july-13-2023/.

¹² See for example, Timothy W. Martin, “Top U.S. General Sees Changing Nuclear Threat From North Korea,” *The Wall Street Journal Online*, March 11, 2024, available at <https://www.wsj.com/world/asia/top-u-s-general-sees-changing-nuclear-threat-from-north-korea-4788270a>.

¹³ See, for example, Wolfgang Panofsky, “Nuclear Insecurity: Correcting Washington’s Dangerous Posture,” *Foreign Affairs*, Vol. 86, No. 5 (September/October 2007), pp. 113-114; David E. Sanger, “Don’t Shoot. We’re Not Ready,” *The New York Times*, June 25, 2006, p. 1; Mike Moore, “Missile Defenses, Relabeled,” *Bulletin of the Atomic Scientists*, Vol. 58, No. 4 (July/August, 2002), p. 22; Joseph Cirincione, “A Much Less Explosive Trend,” *The Washington Post*, March 10, 2002, p. B-3; Carl Levin, *Remarks of Senator Carl Levin on National Missile Defense, National Defense University Forum Breakfast on Ballistic Missile Defense*, May 11, 2001, p. 4, available at www.senate.gov/~levin/newsroom/release.cfm?id=209421; Craig Eisendrath, “Missile Defense System Flawed Technically, Unwise Politically,” *Philadelphia Inquirer*, May 23, 2001; and, Sen. Joseph Biden, “Why Democrats Oppose Billions More on Missiles” (Letter to the editor), *The Wall Street Journal*, July 31, 2006, p. A11.

¹⁴ The U.S. Commander in the Indo-Pacific reportedly testified before Congress that Beijing is on track to its goal of being able to invade Taiwan by 2027. See, Bill Gertz, “U.S. Indo-Pacific commander warns of growing danger of war over Taiwan: Aquilino tells lawmakers \$11 billion in added funds needed to deter China,” *Washington Times Online*, Mar. 21, 2024, available at <https://www.washingtontimes.com/news/2024/mar/21/us-indo-pacific-commander-warns-of-growing-danger-/>; Jesse Johnson, “China on track to be ready to invade Taiwan by 2027, U.S. commander says,” *Japan Times Online* (Japan), March 21, 2024, available at <https://www.japantimes.co.jp/news/2024/03/21/asia-pacific/politics/taiwan-china-invasion-2027/#:~:text=The%20top%20U.S.%20military%20commander,a%20single%20day%20this%20year.>

nuclear use,¹⁵ and in 2022, the Central Intelligence Agency reportedly concluded that there is a 50 percent or greater chance that Moscow will use nuclear weapons if facing defeat in Ukraine.¹⁶ This is devastating commentary on the West's contemporary deterrence position.

In this grim threat context, the fundamental alliance problem is the enduring U.S. preference to look away from stark security challenges and to prioritize non-defense goals. Western allies have unparalleled potential human and material advantages over virtually any combination of foes—Russia's and China's combined GDPs, for example, are a fraction of the combined GDPs of Western allies. The United States and allies have the potential to contain the Sino-Russian entente, North Korea and Iran. But they have continually punted in this regard and now confront multiple existential challenges.

Washington's actions, and more often inaction over many years, are a primary reason that authoritarian states now pose serious military threats to the West's future. The longer they go unanswered, the more likely it is that today's threats will be the source of tomorrow's crises and catastrophes. Whether the allied powers will act in unity and urgency, or ultimately move in different, disparate directions that undercut Western security, is an open question.

Who and What is to Blame?

The United States and allies may, in the foreseeable future, face a reckoning with harsh security realities. The immediate reason for this possible reckoning, of course, is the growing power and aggression of a hostile, authoritarian bloc that seeks to recast the world order, violently if necessary.

However, the United States and allies have facilitated the security challenges they now face. The antecedents to Moscow's aggression in Europe and China's belligerent expansionism have been blatantly obvious for well over a decade. These threats would be less significant had Washington taken needed steps over the past three decades. But many political leaders, Republican and Democrat, have made decisions based on convenient illusions, and the severe results of those decisions are increasingly obvious. That is, contemporary challenges, in principle, were largely manageable had Western leaders not been captured by unrealistic expectations regarding Russia, China, North Korea, Iran, and a cooperative, post-Cold War "new world order." Instead, Washington has facilitated foes' hostile moves and magnified their significance by its failure to recognize and prepare

¹⁵ See Mark B. Schneider, "The Leaked Russian Nuclear Documents and Russian First Use of Nuclear Weapons," *Information Series*, No. 579 (March 18, 2024), available at https://nipp.org/information_series/mark-b-schneider-the-leaked-russian-nuclear-documents-and-russian-first-use-of-nuclear-weapons-no-579-march-18-2024/.

¹⁶ Ronny Reyes, "CIA estimated 50% chance that Russia would nuke Ukraine if it risked losing war: report," *New York Post*, March 10, 2024, available at <https://nypost.com/2024/03/10/world-news/cia-warned-50-chance-that-russia-would-nuke-ukraine-report/>.

proactively for obviously mounting dangers; as two serious experts have emphasized, Western “weakness is provocative.”¹⁷

The U.S. defense budget, defense industrial base and nuclear infrastructure, starved for decades, have not caught up with the great power military threats now confronting the United States and allies.¹⁸ And, for more than a decade beyond any reasonable expectation of Russian or Chinese reciprocity, Washington has continued to pursue antiquated arms control thinking and practices that constrain needed U.S. military preparation and deterrence capabilities. Many in Washington still fail to recognize their culpability in this regard. They have extended the immediate post-Cold War “strategic holiday,” “peace dividend” and fixation on arms control solutions decades longer than prudent.

For example, in an unprecedented threat context, rather than responding urgently to an increasingly dangerous and hostile bloc of states, the Biden Administration’s “grand strategy” appears to prioritize pressing the United States and the world into the progressive political mold fashionable in Washington. As Professor Colin Dueck writes, “If the Biden administration’s grand strategy could be summed up in a single phrase, it would be - *progressive transformation at home and abroad*.”¹⁹

Professor Dueck’s apt and jarring assessment of Washington’s focus is confirmed in numerous ways. In response to looming military threats, including the prospect of nuclear war, Washington seems uninterested in correcting course significantly. America now pays more annually to service the national debt than is devoted to national defense. Despite a threat context that is more dangerous than that of the Cold War, the percentage of GDP devoted to defense is roughly half of what it was during the Cold War. And, as currently planned, U.S. defense spending will essentially be flat from 2023 through 2028,²⁰ and adjusted for inflation, the real buying power of the U.S. defense budget will actually decline.²¹ The Commander of Indo-Pacific Command reportedly testified that the administration’s current budget request is \$11 billion short of that needed to provide the means identified as necessary to deter conflict with China.²² At the strategic nuclear force level, by the end of the decade, it appears that Washington will have to retire aging existing forces before their

¹⁷ Eric Edelman and Frank Miller, “Understanding that Weakness is Provocative is Deterrence 101,” *The Dispatch*, August 8, 2022, available at <https://thedispatch.com/article/understanding-that-weakness-is-provocative/>.

¹⁸ For a discussion of frustrated efforts to align the defense budget with threat realities see, Bryant Harris, “A Nearly \$1 Trillion Defense Budget Faces Headwinds at Home and Abroad,” *Defense News Online*, March 7, 2024, available at <https://www.defensenews.com/congress/2024/03/07/a-nearly-1-trillion-defense-budget-faces-headwinds-at-home-and-abroad/>.

¹⁹ See Colin Dueck, “The Biden Doctrine,” *The Caravan*, Hoover Institution, March 5, 2024, available at <https://www.hoover.org/research/biden-doctrine>. (Emphasis in original).

²⁰ Congressional Budget Office Report, *Long-Term Implications of the 2024 Future Defense Program*, October 25, 2023, available at <https://www.cbo.gov/publication/59511#:~:text=The%20proposed%20budget%20for%20DoD,2024%20in%20the%20previous%20FYDP>.

²¹ Elaine McCusker, “Don’t Be Fooled by Biden’s Budget: He’s Cutting Military Spending as Our Needs Grow,” *AEI Op-Ed*, March 10, 2023, available at <https://www.aei.org/op-eds/dont-be-fooled-by-bidens-budget-hes-cutting-military-spending-as-our-needs-grow/>.

²² As reported in, Gertz, “U.S. Indo-Pacific commander warns of growing danger of war over Taiwan,” op. cit.

replacements can be deployed. These are not the behaviors of a sensible alliance leader prepared to, or preparing to, address unprecedented security dangers.

To be sure, a lack of serious focus on emerging security threats is not new. Washington's dramatic drawdown of forces from Europe, for example, began immediately following the collapse of the Soviet Union, and inexplicably occurred even with Russia's attack on Georgia in 2008 and its first assault on Ukraine in 2014.²³

Russia and China combine unprecedented nuclear buildups and expansionist geopolitical goals, yet Washington remains mired in some of the most optimistic thinking of the immediate post-Cold War period. For example, the 2022 *Nuclear Posture Review* (NPR) calls for "urgent" U.S. moves to advance long-standing arms control goals with no prospect for Russian or Chinese reciprocation. In the harsh contemporary threat context, the NPR asserts that "Mutual, verifiable arms control offers the most effective, durable and responsible path to reduce the role of nuclear weapons in our strategy and prevent their use."²⁴ The comforting expectation that arms control now is the "most effective" way to prevent Chinese or Russian nuclear employment is otherworldly thinking given Moscow's and Beijing's words and deeds over many years—yet it continues in Washington.

In a most disturbing reflection of Washington's misplaced priorities, John Kerry recently asserted that if Moscow would "make a greater effort to reduce emissions now," it would "open the door for people to feel better about" Russia's military invasion of Ukraine.²⁵ In fact, a Russian commitment to "reducing emissions" would do nothing to ease Moscow's crime of invading Ukraine or alter its commitment to violently changing borders in Europe. Similarly, while China and Russia see themselves as in a long-term war with the United States, Washington continues to label engagement with Russia and China as "great power competition,"²⁶—a rhetorical obfuscation that prolongs the pretense of a relatively benign threat environment rather than confront stark threat realities.

In contrast to the Biden Administration's NPR, the near-contemporaneous Congressional Strategic Posture Commission's 2023 report repeatedly calls for "urgent" U.S. movement to meet looming security threats. The need to call for urgency, and the fact that it has been criticized as being overwrought,²⁷ is testament to Washington's decades-long preference for convenient illusions over recognition of rising threats.

²³ See, Michael Allen, Carla Martinez Machain, and Michael Flynn, "The US Military Presence in Europe Has Been Declining for 30 Years—the Current Crisis in Ukraine May Reverse That Trend," *The Conversation* (January 5, 2022), available at <https://theconversation.com/the-us-military-presence-in-europe-has-been-declining-for-30-years-the-current-crisis-in-ukraine-may-reverse-that-trend-175595>.

²⁴ Department of Defense, *2022 Nuclear Posture Review*, October 2022, p. 16, available at <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF>.

²⁵ Quoted in, Sarah Rumpf-Whitten, "John Kerry says people would 'feel better' about the Ukraine war if Russia would reduce emissions," *Fox News*, March 6, 2024, available at <https://www.foxnews.com/politics/john-kerry-says-people-feel-better-about-ukraine-war-russia-reduce-emissions>.

²⁶ *2022 Nuclear Posture Review*, op. cit., p. 5.

²⁷ For example, Harlan K. Ullman, "America's strategic nuclear posture review is miles off the mark," *The Hill Online*, October 30, 2023, available at <https://thehill.com/opinion/national-security/4282404-americas-strategic-nuclear-posture-more-deterrence-and-more-weapons/>.

In short, the immediate cause of the West's unprecedented security challenge is a hostile bloc of revisionist, authoritarian states. A deeper cause is the decades-long failure of Washington and allies to recognize and rise to the threat—which could have been managed given their unparalleled combined power potential. Ultimately unrealistic, antiquated U.S. and allied thinking and behavior are responsible for the significance of contemporary security challenges.

Burden Sharing

Some U.S. leaders claim that overly dependent allies who refuse to contribute enough for Western defense are the problem. To be sure, many wealthy allies, such as Holland, Belgium, Germany, Spain and Italy, devote an essentially trivial fraction of their GDP to Western security—preferring to rely on the United States. Their defense efforts are wholly out of sync with the character of threats posed by a hostile Sino-Russian entente.

Washington, however, has been on its own “strategic holiday” for decades and generally has passively indulged allied free riding. U.S. leaders have called on allies for greater defense “burden sharing” for decades. But Washington's simultaneous actions have, with few exceptions, consistently countenanced allies' continued indolence.

Washington continually assures allies that the U.S. extended nuclear deterrence umbrella covering them is solid and reliable. The United States can hardly criticize allies for engaging in wishful thinking and indolent behavior when it continually offers “ironclad” assurances. Why expect allies to spend serious national treasure when Washington promises its unfailing protection? Why should allies want to change a security formula that demands so little from them—until, of course, that formula is manifestly unreliable.

U.S. and allied thinking are comparably naïve and self-serving: Washington for seemingly expecting—beyond any logic—that its extended nuclear deterrent promises will continue to be credible absent significant new effort, and allies for imprudently going along for the ride because it is most convenient and inexpensive. Allies may be castigated for their share of this folly, but doing so is not slightly hypocritical, and U.S. finger-wagging will ultimately prove unhelpful without real U.S. commitment and leadership.

A Structural Problem: Extended Nuclear Deterrence Credibility

A credible U.S. extended nuclear deterrent is critical to prevent regional war and is an essential glue that holds the alliance system together. Regarding Finland's recent joining of NATO, Finnish President Alexander Stubb said that, “I would start from the premise that we in Finland must have a real nuclear deterrent...which comes from the United States.”²⁸ In

²⁸ Anne Kauranen and Louise Breusch Rasmussen, “NATO's nuclear deterrent must be real for Finland, says new president,” *Reuters*, March 1, 2024, available at <https://www.reuters.com/world/europe/finland-inaugurates-alexander-stubb-president-nato-era-2024-0301/#:~:text=NATO's%20nuclear%20deterrent%20must%20be%20real%20for%20Finland%2C%20says%20new%2>

the absence of a credible U.S. extended nuclear deterrent, key allies have indicated that they could be compelled to acquire independent nuclear capabilities—which would likely unravel the alliances, unleash a cascade of nuclear proliferation, and cause unpredictable, paranoid responses by Russia and China.

It is important to pull back the curtain on the extended U.S. nuclear umbrella: It is the U.S. and NATO threat to escalate a regional non-nuclear conflict, potentially to a thermonuclear war, in response to an attack on an ally. It includes the U.S. threat that Washington may resort to a level of warfare on behalf of an ally that could escalate to the destruction of both allies and the United States.

When the United States was reasonably well-protected from nuclear attack by wide oceans and defenses, Washington could, in relative safety, issue such strategic nuclear deterrence threats on behalf of allies. However, as the Soviet Union became increasingly capable of targeting the United States with its own strategic nuclear forces, U.S. extended deterrence nuclear threats became increasingly problematic. During the Kennedy Administration, Soviet Premier Nikita Khrushchev asked U.S. Secretary of State Dean Rusk directly why Moscow should believe that Washington would risk self-destruction in a thermonuclear war on behalf of distant allies. Rusk's answer was reduced to, "Mr. Chairman, you will have to take into account the possibility we Americans are just [expletive] fools."²⁹ This answer did not even try to claim any logical credibility for the U.S. extended deterrent, but that Moscow should fear that Washington might foolishly be self-destructive.

The questions, of course, are: How credible is this 'we may be fools' basis for extended deterrence, against which enemies, and in what contexts? In 1979, Henry Kissinger addressed this question directly, telling allies publicly that they should *not* expect the United States to abide by suicidal U.S. strategic nuclear threats for their security: "Our European allies should not keep asking us to multiply strategic assurances that we cannot possibly mean, or if we do mean, we should not want to execute, because if we execute, we risk the destruction of civilization."³⁰

During the Cold War, Washington undertook numerous steps to restore credibility to the U.S. extended nuclear umbrella. This included maintaining an enormous standing U.S. force in Europe, including over 300,000 troops throughout the 1980s, to help prevent an easy fait accompli that might tempt Soviet aggression, and brandishing approximately 7,000 locally-deployed or deployable, nonstrategic nuclear weapons (NSNW) to buttress the credibility of the U.S. extended strategic deterrence umbrella. The expectation was that conventional forces and NSNW would add credibility to the nuclear umbrella and manifest links to the U.S. strategic nuclear threat of intercontinental missiles and bombers. The United States also developed a deterrence doctrine that planned limited strategic nuclear options in support of

Opresident,By%20Anne%20Kauranen&text=HELSINKI%2C%20March%201%20(Reuters),fought%20election%20on%20Feb.%2011.

²⁹ Dean Rusk, *As I Saw It* (London: W.W. Norton & Company, 1990), p. 228. See also, Arnold Beichman, "How Foolish Khrushchev Nearly Started World War III," *The Washington Times*, October 3, 2004, p. B 8.

³⁰ Henry Kissinger, "The Future of NATO," in *NATO, The Next Thirty Years*, Kenneth Myers, ed. (Boulder, CO: Westview Press, 1981), p. 8.

extended deterrence, in the expectation that limited U.S. strategic nuclear threats on behalf of allies would be more credible than massive, potentially self-destructive U.S. threats.³¹ These theater and strategic moves intentionally added multiple layers to the U.S. extended deterrent in the search for what Herman Kahn called a “not incredible” U.S. extended nuclear deterrent.

Yet, the United States and allies have since minimized or eliminated the multiple theater deterrent layers that reinforced the credibility of the U.S. extended strategic deterrent during the Cold War—and, with few exceptions, have not advanced new and different measures to replace them. The 2001 and 2010 *Nuclear Posture Reviews* touted U.S. advanced conventional weapons as deterrence tools enabling Washington to reduce the number of, and reliance on, nuclear forces. But the United States has done very little in terms of actually deploying advanced conventional weapons; key allies have noticed. And, while Moscow disdains arms control, expands its nuclear arsenal, and increases its reliance on nuclear weapons,³² Washington inexplicably continues to prioritize the goals of constraining its strategic and theater capabilities, and reducing reliance on nuclear weapons, as emphasized in the 2022 *Nuclear Posture Review*. This includes continuing to embrace unmitigated vulnerability to Chinese and Russian strategic missiles, rejecting new NSNW, abiding by arms control agreements that Russia has clearly abandoned, and harboring an enduring aspiration for a No-First-Use nuclear policy that would serve only to further degrade extended nuclear deterrence credibility, as multiple allies have warned for decades. These behaviors reflect a Washington that remains largely stuck in the post-Cold War “strategic holiday,” “peace dividend,” and demonstrably vapid hope that arms control can solve serious force posture problems.

This continuing fundamental lack of Western realism contributes to the declining credibility of the U.S. extended deterrent—a structural problem for the U.S. alliance system given the hostile bloc now confronting the West. The burden for extended nuclear deterrence is largely on the U.S. strategic nuclear triad, which may be insufficiently credible for this purpose without layers of supporting deterrence capabilities because, as Henry Kissinger emphasized in 1979, it connotes a threat Washington “cannot possibly mean” and “should not want to execute.”

Conclusion

Washington and many allies continue to behave as if they are still in the immediate post-Cold War springtime of great expectations. It may be too late to deter a reckoning that decades of

³¹ See, Keith B. Payne, *The Great American Gamble* (Fairfax, VA: National Institute Press, 2008), pp. 95-96.

³² For discussions of increasing reliance see, Office of the Director of National Intelligence, *Annual Threat Assessment of the U.S. Intelligence Community* (Washington, D.C.: Office of the Director of National Intelligence, February 6, 2023), p. 14, available at <https://www.dni.gov/index.php/newsroom/reportspublications/reports-publications-2023>; and, The White House, *National Security Strategy* (Washington, D.C.: The White House, October 2022), p. 26, available at <https://www.whitehouse.gov/wp-content/uploads/2022/10/Biden-Harris-Administrations-National-Security-Strategy-10.2022.pdf>.

indolence and wishful thinking have effectively invited. Recognizing and addressing the threats and structural problems that now beleaguer U.S. global alliances are urgent needs. That recognition and effort must begin in Washington. Ronald Reagan's famous Cold War speech, "A Time for Choosing," included a line that fully pertains to Washington and allies today: "We're at war with the most dangerous enemy that has ever faced mankind in his long climb from the swamp to the stars, and it's been said if we lose that war, and in so doing lose this way of freedom of ours, history will record with greatest astonishment that those who had the most to lose did the least to prevent its happening."³³

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³³ Ronald Reagan, *A Time for Choosing*, October 27, 1964, available at <https://www.reaganlibrary.gov/reagans/ronald-reagan/time-choosing-speech-october-27-1964>.



ANALYSIS

THE NEED FOR A “TWO-WAR STRATEGY” TO REINFORCE EXTENDED DETERRENCE AND ASSURANCE

David J. Trachtenberg

Introduction

For years following the Cold War, the United States was considered the sole superpower and the U.S. military was the preeminent fighting force in the world. In the wake of the demise of the Soviet Union, U.S. military strategy transitioned from a focus on deterring global conflict to one centered on regional contingencies. Accordingly, U.S. military planners designed a strategy that called on the United States to prepare to fight two major regional contingencies (MRCs) simultaneously.

This two-MRC construct was embedded in various unclassified U.S. military strategy documents and required U.S. forces to be sized and capable of successfully engaging adversaries in both Europe and Asia. It required a military that was sufficiently forward deployed and equipped with the most modern and sophisticated military technology that would ensure a U.S. advantage on the battlefield. This two-war standard became the benchmark against which the adequacy of U.S. forces was judged.¹

Over time, the two-war standard was modified and scaled back to focus on irregular warfare and defeating one regional adversary while imposing severe costs on another. With the re-emergence of sharp great power conflicting interests as outlined in the 2017 *National Security Strategy of the United States of America* and the 2018 *National Defense Strategy*, the United States shifted its conceptual focus from irregular warfare and lesser regional contingencies to threats posed by Russia and China. Yet U.S. military forces remained ill-prepared to prosecute a two-war scenario, especially one involving Sino-Russian collaboration.

The critical question is whether the U.S. armed forces today have adopted or are postured to adopt a revised force-planning construct that prepares for simultaneous regional conflicts

This article is adapted from a forthcoming National Institute *Occasional Paper* on the topic.

¹ Over the years, the “two-war” strategy was officially referred to in a variety of ways. As described by one expert analyst: “Since the end of the Cold War, the basic metric for judging the adequacy of the U.S. military has been its ability to fight in two geographically separated regions of the world at approximately the same time. Referred to at different times as ‘Major Regional Contingencies (MRCs),’ ‘Major Theater Wars,’ or ‘multiple, large scale operations,’ the two-war standard has stood the test of time because it reflects a basic strategic reality that was well expressed by the 2012 Strategic Guidance for the Department of Defense: ‘As a nation with important interests in multiple regions, our forces must be capable of deterring and defeating aggression by an opportunistic adversary in one region even when our forces are committed to a large-scale operation elsewhere.’” See Daniel Gouré, “Building the Right Military for a New Era: The Need for an Enduring Analytic Framework,” *2015 Index of U.S. Military Strength*, The Heritage Foundation, October 7, 2014, available at https://www.heritage.org/sites/default/files/2019-10/2015_IndexOfUSMilitaryStrength_Building%20the%20Right%20Military%20for%20a%20New%20Era_The%20Need%20for%20an%20Enduring%20Analytic%20Framework.pdf.



against nuclear peer adversaries in Europe and the Indo-Pacific. Failing to do so carries significant implications for both U.S. adversaries and U.S. allies: It likely encourages adversaries to challenge the United States militarily while simultaneously causing allies to question the credibility of U.S. security assurances.

A Dangerous Decline and A False Choice

The current conflict in Ukraine has exposed severe limitations in U.S. military readiness and capabilities, as the U.S. defense industrial base struggles with the demands of supporting Ukraine with sufficient equipment and materiel without negatively affecting U.S. warfighting readiness. Moreover, there are those who are calling for the United States to shift scarce defense resources away from supporting Ukraine's fight against Russia and toward confronting China in the Indo-Pacific. Such calls reflect concern that the United States is ill-prepared to fight a two-front war with great powers.² The situation is made even more precarious by the emergence of a hostile Sino-Russian entente that is threatening key U.S. allies in two different theaters. In addition, the United States now finds itself increasingly embroiled in a Middle East conflict that is likely to siphon additional military resources away from deterring great power rivals.

The current situation is a legacy of conscious decisions made by multiple U.S. administrations in the aftermath of the Cold War to reduce U.S. military capabilities in anticipation of a more benign strategic security environment. This was done without any apparent concern for the future assurance of allies in the event that the threat context dramatically worsened—which, unfortunately, has been the case. The expectation was that China would rise peacefully and that Russia would either be irrelevant to U.S. national security concerns or cooperative, i.e., a partner with the West rather than an adversary. As is now evident, those predictions did not materialize as expected. The international security environment today is arguably more dynamic, more uncertain, and more dangerous than ever before.

Any potential conflict with China is likely to rely heavily on U.S. air- and sea-based assets. In the 1980s, the Reagan Administration sought a 600-ship Navy. Today, the U.S. Navy has shrunk in size to fewer than 300 ships. While individual platforms possess greater capability today, the U.S. capacity to deploy forward as part of a deterrence strategy is much less than it was four decades ago. Likewise, the Air Force is cutting platforms, raising questions regarding the U.S. ability to deter Chinese aggression in the Indo-Pacific. As one Air Force official reportedly stated, “By any measure, we have departed the era of conventional

² For example, see Elbridge A. Colby, *The Strategy of Denial: American Defense in an Age of Great Power Conflict* (New Haven, CT: Yale University Press, 2021).

overmatch” with respect to China. Beijing has “advanced so far and so fast in its air and space power that the Air Force’s ability to deter through conventional forces is at risk.”³

In addition to reducing U.S. conventional military power, Washington has repeatedly delayed essential nuclear modernization programs. In fact, the current U.S. nuclear modernization program is a legacy of the Obama Administration and was proposed at a time when the era of great power rivalry was considered a remnant of the past. Indeed, the 2010 *Nuclear Posture Review* (NPR) declared that “Russia and the United States are no longer adversaries, and prospects for military confrontation have declined dramatically,” noting, “The threat of global nuclear war has become remote....”⁴ Indeed, the 2010 NPR explicitly placed highest priority *not* on deterrence, but on nuclear non-proliferation and limitations on nuclear forces. In light of Russia’s full-scale invasion of Ukraine and the multitude of nuclear threats Moscow has levied against the United States and the West in the past several years, such conclusions now appear naïve at best, and the nuclear modernization program of record from the earlier optimistic era is now problematic.

As a result of Washington’s abandonment of a two-war strategy and the corresponding relative decline in U.S. nuclear and conventional military capabilities, the United States is confronting calls to “prioritize” its defense requirements in order to avoid spreading itself too thin militarily. With active conflicts going on in Europe and the Middle East, and with the growing potential for conflict in the Indo-Pacific, the United States no longer has the luxury of being confident in its capacity to deter reliably all potential adversaries in all potential regions. Consequently, some former Pentagon officials now argue that the focus of U.S. defense investments must be on China, which is deemed the greatest security threat to the United States and to U.S. interests abroad.

However, the view that the United States can only afford to prioritize defeating a single major adversary in one theater of operations carries significant ramifications for extended deterrence and assurance of allies. Indeed, as one study has concluded, “The United States cannot commit its forces to one regional contingency without impacting the deterrence posture in the other region.”⁵ And as others have noted more succinctly, “...a one-war force invites opportunistic aggression in a second theater.”⁶ U.S. allies and strategic partners who rely on the United States as the ultimate guarantor of their own security surely recognize the

³ Cited in Mackenzie Eaglen, “The Bias for Capability Over Capacity Has Created a Brittle Force,” *War on the Rocks*, November 17, 2022, available at <https://warontherocks.com/2022/11/the-bias-for-capability-over-capacity-has-created-a-brittle-force/>.

⁴ Department of Defense, *Nuclear Posture Review Report*, April 2020, pp. iv, 3-4, available at https://dod.defense.gov/Portals/1/features/defenseReviews/NPR/2010_Nuclear_Posture_Review_Report.pdf.

⁵ Jacek Durkalec, Charlotte Henderson, and Lindsay Rand, *Extended Deterrence and the Two-War Problem: Workshop Summary*, Center for Global Security Research, Lawrence Livermore National Laboratory, April 6-7, 2022, available at https://cgshr.llnl.gov/content/assets/docs/Workshop_Extended_Deterrence_and_Two_War_Problem_CGSR_Summary.pdf.

⁶ Mark Gunzinger and Kamilla Gunzinger, “Ukraine makes clear the US must reconsider its one-war defense strategy,” *Defense News*, March 14, 2022, available at <https://www.defensenews.com/opinion/commentary/2022/03/14/ukraine-makes-clear-the-us-must-reconsider-its-one-war-defense-strategy/>.

increased risk that accompanies a U.S. military that is limited in its ability to respond to aggression in multiple theaters simultaneously.⁷

Heightened Allied Anxieties

In light of reduced U.S. military capabilities, concerns about an overextended U.S. presence abroad, and an apparent U.S. reluctance to commit military resources to ongoing conflicts in other theaters, even a focus on deterring China from attacking Taiwan has not been sufficient to quell Taiwanese anxiety over American willingness to come to Taiwan's defense should China seek to move militarily against the island. As one Taiwanese academic noted, "there is substantial skepticism" over the U.S. commitment to defend Taiwan in the event of overt Chinese aggression.⁸ Indeed, when it comes to U.S. security guarantees, a recent poll found that only 34 percent of Taiwanese believe the United States is a trustworthy country.⁹

Elsewhere in Asia, concerns over the credibility of U.S. security guarantees are growing, with both Japan and the Republic of Korea (ROK) openly questioning whether they should acquire their own nuclear deterrent. In the ROK, polling data indicates that more than 70 percent of South Koreans support the deployment of nuclear weapons on their territory—either the re-introduction of American nuclear weapons or the acquisition of their own.¹⁰ This is a reflection of these allies' growing threat perceptions and the simultaneous declining confidence in the credibility of U.S. extended deterrence. As one recent poll found, more than 60 percent of South Koreans doubt the United States would use its nuclear deterrent to protect the ROK in the event of a military conflict on the Korean peninsula.¹¹ This skepticism appears to be a result of the combination of North Korea's aggressive increase in its nuclear and missile programs and the decline in U.S. military capabilities following Washington's rejection of the two-war strategy.

⁷ For an excellent analysis of this issue, see Michaela Dodge, *Alliance Politics in a Multipolar World, Occasional Paper Vol. 2*, No. 10 (Fairfax, VA: National Institute Press, October 2022), available at <https://nipp.org/wp-content/uploads/2022/10/OP-Vol.-2-No.-10.pdf>.

⁸ Damien Cave and Amy Chang Chien, "Taiwan's Doubts About America Are Growing. That Could Be Dangerous," *The New York Times*, January 22, 2024, available at <https://www.nytimes.com/2024/01/20/world/asia/taiwan-united-states-views.html>.

⁹ Ibid.

¹⁰ Toby Dalton, Karl Friedhoff, and Lami Kim, "Thinking Nuclear: South Korean Attitudes on Nuclear Weapons," Chicago Council on Global Affairs, Lester Crown Center on U.S. Foreign Policy, Carnegie Endowment for International Peace, February 2022, available at <https://globalaffairs.org/sites/default/files/2022-02/Korea%20Nuclear%20Report%20PDF.pdf>. See also, "South Koreans want their own nukes. That could roil one of the world's most dangerous regions," *The Associated Press*, November 30, 2023, available at <https://www.asahi.com/ajw/articles/15070825>.

¹¹ Ji Da-gyum, "Over 60% of S. Koreans lack trust in US nuclear umbrella: survey," *The Korea Herald*, February 5, 2024, available at <https://www.koreaherald.com/view.php?ud=20240205000663#:~:text=Over%2060%25%20of%20S.%20Koreans,in%20US%20nuclear%20umbrella%3A%20survey&text=Over%2060%20percent%20of%20South,for%20Advanced%20Stu dies%20on%20Monday>.

In Japan, public debate over acquiring nuclear weapons as a deterrent has reached unprecedented levels—a remarkable development for the only country to have suffered through two atomic bombings. Even Japan's former prime minister, the late Shinzo Abe, suggested Japan should consider hosting U.S. nuclear weapons on Japanese soil for its own defense.¹² While this may remain a minority view among the Japanese public, it suggests growing doubts about the reliability of U.S. extended deterrence guarantees.

In Europe as well, some of America's traditional key allies are growing more concerned about the credibility of U.S. security guarantees. One survey of more than 15,000 respondents in 11 European countries found that a majority believe China is on the ascendancy and will overtake the United States in relative power over the next ten years. It concluded that Europe cannot depend on the United States to defend European security. The survey also exposed a belief that Europeans should invest more heavily in their own security and adopt a position of neutrality in any conflict involving the United States, China, or Russia.¹³ As an analysis of the survey concluded, "The growing mistrust about Washington's reliability and power is changing the nature of the transatlantic alliance."¹⁴

Additional evidence exists of European concerns over American reliability. For example, French president Emmanuel Macron has argued that Europe should adopt a policy of "strategic autonomy," reducing its dependence on the United States and avoiding involvement in any potential U.S.-China confrontation over Taiwan.¹⁵ And as one analyst commented, U.S. security guarantees in NATO, the Middle East, and the Indo-Pacific are all in need of an "integrity check" as "treaty allies and partner nations are reassessing their bilateral security relationships with the United States."¹⁶ In addition, one study conducted by the Finnish Institute of International Affairs concluded that the lack of a U.S. two-war strategy could lead to opportunistic aggression, noting: "If two major wars occur either simultaneously or sequentially, US military capability will be put under great stress. In the event of a second war, the US may find itself in a situation of conventional military inferiority, which it might have to compensate for with greater reliance on nuclear weapons."¹⁷

¹² Jesse Johnson, "Japan should consider hosting U.S. nuclear weapons, Abe says," *The Japan Times*, February 27, 2022, available at <https://www.japantimes.co.jp/news/2022/02/27/national/politics-diplomacy/shinzo-abe-japan-nuclear-weapons-taiwan/>.

¹³ Jana Puglierin and Pawel Zerka, *Keeping America Close, Russia Down, and China Far Away: How Europeans Navigate A Competitive World*, European Council on Foreign Relations, Policy Brief, June 2023, available at <https://ecfr.eu/wp-content/uploads/2023/06/Keeping-America-close-Russia-down-and-China-far-away-How-Europeans-navigate-a-competitive-world-published.pdf>.

¹⁴ Ivan Krastev and Mark Leonard, "The crisis of American power: How Europeans see Biden's America," *Policy Brief*, European Council on Foreign Relations, January 19, 2021, available at <https://ecfr.eu/publication/the-crisis-of-american-power-how-europeans-see-bidens-america/>.

¹⁵ Jamil Anderlini and Clea Caulcutt, "Europe must resist pressure to become 'America's followers,' says Macron," *Politico*, April 9, 2023, available at <https://www.politico.eu/article/emmanuel-macron-china-america-pressure-interview/>.

¹⁶ R. Clarke Cooper, "American security cooperation needs an 'integrity check,'" *Atlantic Council*, September 3, 2021, available at <https://www.atlanticcouncil.org/blogs/new-atlanticist/american-security-cooperation-needs-an-integrity-check/>.

¹⁷ Jyri Lavikainen, "China as the Second Nuclear Peer of the United States," *FIIA Briefing Paper No. 383*, Finnish Institute of International Affairs, February 2024, p. 2, available at https://www.fiia.fi/wp-content/uploads/2024/02/bp383_china-as-the-second-nuclear-peer-of-the-united-states.pdf.

One of the starkest expressions of concern over U.S. reliability was conveyed in a recent warning to European powers by two long-time scholars of transatlantic relations: “Recent events have shown that the United States will not vigorously and reliably defend you. The United States cannot credibly threaten escalation to defend our allies.” Their bottom-line summation: “Dear Allies: Do not look to the United States for your defense.”¹⁸

These changes in perceptions, in part, reflect concerns over official U.S. wariness to engage directly or indirectly in actions that could lead to escalatory outcomes. That wariness corresponds to the U.S. military retrenchment that began years ago with the movement away from a two-war strategy and the necessary procurement of military capabilities that could effectively execute that strategy.¹⁹ As U.S. military capabilities have declined, allies and strategic partners of the United States have become increasingly skeptical of U.S. security guarantees. Consequently, the Biden Administration has sought to publicly reassure partners in Europe and Asia of the “ironclad” nature of America’s commitment to their security.²⁰ The need for such reassurances suggests recognition of a growing uneasiness among allies over the credibility of such guarantees.

Addressing the Challenge

Over the past decade, there have been several calls for a return to a two-war strategy in light of contemporary security developments. The prospect of a revanchist China and Russia working together or engaging in opportunistic aggression to challenge U.S. national security interests worldwide suggests that the time has come to restore the two-MRC force-sizing construct as a necessary means of bolstering deterrence.

Restoring a two-MRC standard will require greater regional power projection capabilities, including an expanded U.S. force presence abroad, along with a greater number

¹⁸ Michael Hochberg and Leonard Hochberg, “Our Restraint Destroys Your Deterrence,” *RealClear Defense*, February 10, 2024, available at https://www.realcleardefense.com/articles/2024/02/10/our_restraint_destroys_your_deterrence_1010986.html.

¹⁹ While some attribute growing allied concerns over American security guarantees to domestic U.S. politics—in particular concerns over how U.S. policy might change in a second Trump Administration—the inability of the United States adequately to defend its global interests in an increasingly contested international security environment characterized by two peer nuclear adversaries has arguably contributed to the belief that the United States may not be a reliable security partner. It has also fueled the controversy over whether and how the United States must choose between deterring adversaries in multiple potential theaters of conflict.

²⁰ Over a one-day period, President Biden, Secretary of Defense Lloyd Austin, and Assistant Secretary of Defense for Indo-Pacific Security Affairs Ely Ratner all publicly reasserted that U.S. security guarantees to Japan, the Philippines, Israel, and South Korea were “ironclad.” As a DoD press release noted, the United States “affirmed its ironclad commitment to extended deterrence....” See Aamer Madhani and Zeke Miller, “Biden says US support for Philippines, Japan defense ‘ironclad’ amid growing China provocations,” *Associated Press*, April 11, 2024, available at <https://apnews.com/article/japan-philippines-trilateral-kishida-marcos-biden-03e6288c5b5155af1bb693a464de875d>; Tweet by Secretary of Defense Lloyd Austin, April 11, 2024, available at <https://twitter.com/SecDef/status/1778570526396424598>; and Department of Defense, “Joint Press Statement for the 24th Korea-U.S. Integrated Defense Dialogue,” April 11, 2024, available at <https://www.defense.gov/News/Releases/Release/Article/3739122/joint-press-statement-for-the-24th-korea-us-integrated-defense-dialogue/>.

of more flexible, technologically sophisticated, and survivable offensive and defensive military assets both in theater and capable of rapid deployment to theater as needed.

The impact of a less than two-war strategy on extended deterrence and assurance is manifestly detrimental to the credibility of U.S. security guarantees to allies and their corresponding assurance. The credibility of America's security guarantees corresponds to the capability and willingness of the United States to act on its commitments, and to be seen as willing to do so. A failure of U.S. resolve in one region cannot help but raise doubts about U.S. steadfastness and resolve among allies and strategic partners elsewhere. The end result is likely to be a weakening of trust in the United States and a greater movement by friends and allies toward accommodation and appeasement of U.S. adversaries. In the emerging threat environment, where the United States faces not one but two nuclear peer adversaries, the U.S. ability to project power and make good on its extended deterrence and assurance commitments is more critical than ever.

The force expansion necessary to implement a two-war strategy will require additional fiscal resources beyond those currently budgeted. Some in Congress have shown a willingness to go beyond the levels of defense spending requested by the Biden Administration. However, the results of recent budget negotiations are likely to constrain the procurement of the additional forces needed to implement adequately a two-war strategy. And the president's proposed defense budget for fiscal year 2025 reportedly will reflect only a one percent increase over the previous year—which translates to a real *reduction* in actual defense purchasing power given the rate of inflation.²¹ This actual reduction in U.S. defense spending purchasing power is likely to preclude the implementation of the current strategy, much less a two-war strategy.²²

Some have suggested that it is up to America's allies to shoulder a greater burden of defense preparedness and that this should be a prerequisite for any increase in U.S. support to allies or strategic partners such as Ukraine that are engaged in their own efforts to counter

²¹ See Tony Capaccio, "Biden to Seek 1% Increase in 2025 Defense Budget Under Cap," *Bloomberg*, March 6, 2024, available at <https://www.bloomberg.com/news/articles/2024-03-06/biden-to-request-1-increase-in-2025-defense-budget-under-cap?embedded-checkout=true>. Also see Brad Dress and Ellen Mitchell, "Biden seeks modest bump for record \$895B defense budget," *The Hill*, March 11, 2024, available at <https://thehill.com/policy/defense/4524735-biden-record-895b-defense-budget/>. *The Wall Street Journal's* editorial board referred to this as "a military budget fit for 1991" and stated that "the U.S. military is in a state of managed decline." See The Editorial Board, "Biden Shrinks the U.S. Military," *The Wall Street Journal*, March 12, 2024, available at <https://www.wsj.com/articles/biden-defense-budget-pentagon-u-s-military-china-russia-israel-ukraine-ba7fd46b>.

²² Some in Congress have reportedly argued that the defense budget is more than \$400 billion below what is required to meet current commitments. For example, Sen. Roger Wicker (R-MS) called for a defense budget of \$1.3 trillion, or five percent of U.S. Gross Domestic Product. See Senator Roger Wicker, *21st Century Peace Through Strength: A Generational Investment in the U.S. Military*, May 2024, p. 7, available at <https://www.wicker.senate.gov/services/files/BC957888-0A93-432F-A49E-6202768A9CE0>. Also see Stephen Groves, "Key Republican calls for 'generational' increase in defense spending to counter US adversaries," *Associated Press*, May 29, 2024, available at <https://apnews.com/article/us-military-spending-pentagon-china-russia-iran-1af566ecfca060ce3042b23d9feb2438>; Bryant Harris, "A nearly \$1 trillion defense budget faces headwinds at home and abroad," *DefenseNews*, March 7, 2024, available at https://www.defensenews.com/congress/2024/03/07/a-nearly-1-trillion-defense-budget-faces-headwinds-at-home-and-abroad/?utm_campaign=dfn-ebb&utm_medium=email&utm_source=sailthru&STOverlay=2002c2d9-c344-4bbb-8610-e5794efcfa7d#:~:text=As%20the%20Pentagon%20seeks%20to,and%20where%20it's%20falling%20short..

military aggression.²³ While the issue of allied “burdensharing” has long been controversial, and greater allied defense investments should be encouraged, there is no substitute for American leadership. The U.S. inability to demonstrate both a willingness and capability to deter, and if necessary defeat, aggression in multiple theaters simultaneously—particularly in the face of a growing Sino-Russian entente—risks encouraging the very aggression U.S. defenses are intended to deter.

Today, the United States remains constrained by the choices it made decades ago. U.S. military prowess remains limited by a one-war standard (which, some argue, is really a one-half-war standard) and related defense spending limits. With few exceptions, allies have not stepped up to take up the slack for their own defense. Eventually, U.S. allies will be compelled to make tough choices: either work with the United States to seriously rearm; rearm themselves independently; or conciliate to the Sino-Russian entente. Without a demonstrable American commitment to reenact a two-war strategy, the last option may be increasingly inevitable for some allies.

A policy of accommodation or appeasement is unlikely to forestall any aggressive acts by a Sino-Russian entente. Some European states have demonstrated the will to increase their own defense capabilities in the face of growing Russian assertiveness and aggression. Yet there is no substitute for U.S. leadership and power; it falls on the United States, as the leader of NATO and the ultimate guarantor of European security, to shoulder much of the burden. Doing so undoubtedly entails moving expeditiously toward re-adoption of a two-war strategy and procuring the conventional and nuclear capabilities needed to implement that strategy. Only in this way will allied confidence in the credibility of U.S. security guarantees increase and the efficacy of the U.S. extended deterrent be preserved.

Conclusion and Recommendations

The need to reconsider a more robust force-sizing construct to strengthen deterrence in an era of two great power rivals has received strong bipartisan support. Recently, the congressionally mandated Strategic Posture Commission concluded that a one-war strategy is inadequate and inappropriate to the contemporary military challenges facing the United States. It declared that “U.S. and allied conventional military advantages in Asia are decreasing at the same time the potential for two simultaneous theater conflicts is increasing.”²⁴

This structural challenge facing extended deterrence and assurance cannot be solved with robust rhetoric from Washington and NATO. The 2022 NPR shows some recognition of the problem but eliminates “hedging” as a requirement despite the need for greater

²³ See, for example, Rep. Mike Waltz, “Europe must do more for Ukraine; U.S. has to protect its own border,” *The Highland County Press*, September 26, 2023, available at <https://highlandcountypress.com/europe-must-do-more-ukraine-us-has-protect-its-own-border#gsc.tab=0>.

²⁴ Madelyn R. Creedon, Jon L. Kyl, et al., *America’s Strategic Posture: The Final Report of the Congressional Commission on the Strategic Posture of the United States*, October 2023, pp. 8, 90, available at <https://ida.org/-/media/feature/publications/a/am/americas-strategic-posture/strategic-posture-commission-report.ashx>.

flexibility and adaptability in U.S. force preparedness. However, a renewed two-MRC standard would help provide a needed hedge against resurgent Russian revanchism, the rise of Chinese aggression, and a combination of both. Without such a hedging strategy, the risks of aggression, including opportunistic or coordinated aggression will increase.

In light of the more dangerous international security climate, especially the growing threats to the United States and its allies posed by a revanchist Russia and a more assertive and aggressive China, the deficiencies in U.S. strategy and force posture must be remedied if deterrence is to be preserved and strengthened. This will require a serious effort and major additional defense investments.

Among the actions that should be taken are the following:²⁵

1. The United States must reassess its current military strategy and re-posture itself to deter simultaneously multiple nuclear and non-nuclear adversaries in several distinct theaters of operation. This will require readopting a “two-war” standard for force planning. While the exact number of forces and platforms needed to implement a two-war strategy is debatable, there can be no question that recommitting to such a strategy will require a greater number of defense assets to strengthen deterrence, as well as better logistics, improved readiness, and overseas basing facilities. In addition, the Department of Defense should incorporate a two-war scenario in its war games and exercises.
2. The United States should increase the level of defense investment and resources in both conventional and nuclear forces to implement adequately such a strategy. It seems increasingly clear that the capabilities of both U.S. nuclear and conventional forces must be augmented to support the possibility to deter—or should deterrence fail—to defeat two nuclear-armed opponents, operating independently or in concert, in two distinct theaters. This includes expediting greater production of weapons and munitions that will allow the United States to implement a two-war strategy without compromising the nation’s ability to protect U.S. interests and support U.S. friends, allies, and partners. The resources to implement such a course of action will no doubt be sizable, but the risks of failing to invest in the necessary capabilities outweigh the costs. The price of peace may be expensive, but it is always cheaper than the costs of war.
3. The United States must improve its global power projection capabilities. The decline in U.S. power projection capabilities is noticed by allies and adversaries alike. Without the ability to deploy forces where needed on a timely basis to affect the outcome of a conflict, U.S. deterrence will suffer. The United States should conduct a serious reassessment of its globally deployed force levels and capabilities to strengthen deterrence in light of the expansion in force deployments and capabilities by both Russia and China. Forward deploying additional U.S. forces to the European

²⁵ Some of the recommendations that follow are addressed in David J. Trachtenberg, “Deterrence Implications of a Sino-Russian Entente,” in James H. Anderson and Daniel R. Green (eds.), *Confronting China: U.S. Defense Policy in an Era of Great Power Competition* (forthcoming), Praeger Security International, 2024, pp. 169-192.

- and Indo-Pacific theaters, on a permanent and/or rotational basis, would convey a tangible and credible commitment to protect U.S. security interests as well as the security of regional allies and strategic partners.
4. U.S. allies must step up their own defensive investments and enhance their contributions to the common defense. Currently, most NATO allies have failed to meet their two percent of GDP defense spending commitment, agreed to at the 2014 Wales Summit. At the upcoming Washington Summit in July, NATO nations should reevaluate the Wales benchmark and commit to doubling the two percent target goal—to at least four percent of GDP. Such a level is eminently affordable for European economies that have prospered and benefitted from disproportionate expenditures on domestic priorities and that have relied on the United States to shoulder the majority of the burden of collective security. The current inadequacy of defense investments by many NATO members is no longer satisfactory or acceptable in the current security environment. It is time for U.S. allies to step up to their responsibilities for their security by increasing both defense expenditures and the procurement of military hardware that will improve their deterrent capabilities in the face of repeated threats by opponents. This is a necessary action to forestall a “crisis of deterrence credibility.”
 5. The United States must reject the false choice of prioritizing deterrence in one theater over another. Despite concerns expressed by some that the United States cannot “walk and chew gum at the same time,” the U.S. economy is resilient enough to ensure a credible and effective deterrent against multiple adversaries across multiple theaters of operation. What is required is a serious commitment to take the necessary actions to restore a robust deterrent posture against the prospect of regional aggression by multiple opponents, including Russia and China working independently or in concert, to undermine U.S. security.
 6. The United States should work to assure allies of the credibility of U.S. security guarantees by demonstrating that the United States is serious about rebuilding a force that can successfully deter and, if necessary, defeat aggression by multiple adversaries in multiple theaters. If states that have previously been content to rely for their ultimate security on U.S. assurances, including those that fall under the U.S. “nuclear umbrella,” come to believe the United States can no longer be trusted to live up to its security promises, they may take other measures to ensure their own security and survival—including the acquisition of nuclear weapons. This would result in a major setback to decades of U.S. nonproliferation policy. Of course, reinforcing U.S. security guarantees to allies should not be an excuse for allied countries to fail to invest adequately in their own defense. The gathering storm of instability and the ubiquity of uncertainty in the international security environment demands a serious commitment to strengthening deterrence in light of serious challenges to the existing world order.

7. The United States must restore “hedging against uncertainty” as an explicit goal for U.S. forces. Restoration of a two-war planning construct would help hedge against uncertainty. It would contribute to deterrence of opportunistic aggression and help assure allies and strategic partners of U.S. resolve. Yet the *2022 Nuclear Posture Review* explicitly eliminates “hedging” as a requirement for U.S. nuclear forces despite the need for greater flexibility and adaptability in U.S. force preparedness. Given the greater deterrence challenges resulting from the deteriorating international security environment, the ability to hedge against uncertainty should be an essential component of any U.S. military force planning. In fact, a “hedging” strategy has been part of every U.S. administration’s planning process for nuclear weapons since the end of the Cold War. The same should apply to planning for conventional conflict.

Accomplishing the needed improvements in U.S. planning and capabilities for extended deterrence and assurance will require a long-term effort, backed by strong political support. It also will require the necessary increase in fiscal and material resources to get the job done. In today’s increasingly dynamic and dangerous international security environment, nothing less will suffice.

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INTERVIEWS

As part of its continuing effort to provide readers with unique perspectives on critical national security issues, National Institute has conducted a series of interviews with key subject matter experts on a variety of contemporary defense and national security topics. In this issue of National Institute's *Journal of Policy & Strategy*, we present two interviews: one with Rod Lyon, Senior Fellow—International Strategy, Australian Strategic Policy Institute; and Dong-hyun Kim, International Broadcast Journalist, *Voice of America*. The authors offer their perspectives on U.S. assurance in a multipolar competition, examine views of the Australian and South Korean governments respectively, and offer recommendations on improving communication with the United States. The interviews were conducted by Michaela Dodge, Research Scholar, National Institute for Public Policy.

An Interview with Rod Lyon Senior Fellow-International Strategy, Australian Strategic Policy Institute

Q. What are the Australian government's views regarding the value of the alliance with the United States? How important is it for the government?

A. Well, I don't speak on behalf of the Australian government, so I should make clear at the outset that the views I give here are merely my own. Still, this first question is easily answered: a steady procession of governments have believed that the alliance is of fundamental importance to Australia. It offers an assurance of support from the United States in times of need, enables a stronger Australian Defence Force through technology transfer, joint exercising and intelligence exchanges, and underpins an annual defence budget of roughly two percent of GDP instead of a much higher figure. In accordance with the dictum that success has many fathers, both Liberal-National and Labor governments claim paternity of the alliance relationship. Moreover, the alliance enjoys strong public support, making governments wary about being seen to damage it.

Still, each government comes to power facing a unique configuration of international and domestic constraints. Today's strategic circumstances are particularly challenging, especially in relation to power shifts in the Indo-Pacific. The strategic conversation in Australia both within and beyond the government turns upon the question of how best to prepare to live in a more unsettled and competitive region. And since governments don't rule by strategic considerations alone, those decisions are shaped by a range of imperatives, including, for example, the wish to maintain a budget surplus. Moreover, the Australian Labor Party is not of one mind upon the critical issue of nuclear weapons, making the government reluctant to lead a public discussion on the issue, lest doing so 'spooks the horses', so to speak.



Q. What is the value of extended nuclear deterrence?

A. This is a harder question, since governments are not inclined to ruminate upon the value of particular strategic concepts. I suspect the government's thinking is still rather traditionalist. The Asia-Pacific was a secondary theater to Europe in U.S. strategic thinking and nuclear weapons were not as important here. That thinking still permeates the Australian view of extended deterrence, complicating thinking about an already esoteric subject. For the reasons given above, the current government has not set forth to lead an informed discussion with the public on the changing shape of nuclear coercion, and what that implies for U.S. allies and partners. Both the Australian government and public need to invest more heavily in thinking about the changing roles of conventional and nuclear weapons in a more multipolar Asia.

Further, the value that the Australian government places upon extended deterrence is not determined solely by importance of the doctrine for Australia itself. The U.S. umbrella provides security against large-scale military attack for dozens of countries worldwide, many of which are more directly exposed to coercion than Australia is. Were the doctrine to fail, it might well precipitate a wave of proliferation that doubled the number of nuclear-armed states in the world.

Q. What is the Australian government's view of the credibility of the U.S. nuclear umbrella?

A. That's a difficult question to answer. Australia enjoys the luxury of a geographical location remote from the region's strategic front lines, and so doesn't feel quite the same strategic pressures that some other countries do. But it's hard to believe that questions about the credibility of the U.S. nuclear umbrella aren't increasingly being raised within government. Moreover, a reading of the previous government's Defence Strategic Update 2020 would suggest that such questions aren't new. The prospect of a second Trump administration adds fuel to the flames.

Q. What are the Australian government's views of the force posture requirements for extended deterrence?

A. There is no special trick that automatically makes extended deterrence more credible. The allies have in recent years explored the force posture requirements needed to diversify U.S. deployment options in the region, including the rotational presence of U.S. marines in the Northern Territories, and improved access for naval and air assets, including as part of the AUKUS agreement. Indeed, over the past decade the force posture initiatives have wrought, unbeknownst to most Australians, a mini-revolution in terms of operationalizing the alliance.

More difficult to distill from publicly-available information is the extent to which the Australian government might be willing to explore increased cooperation in regard to

nuclear weapons. Australian membership of the Treaty of Rarotonga constrains stationing and storage options, but seems to leave some space for weapons deemed to be ‘in transit’. Still, given the worry about spooking horses, it is hard to imagine the current Australian government being especially venturesome in exploring such options. That’s disappointing, as the pace of strategic change in the Indo-Pacific currently provides a rationale—some might even say a requirement—for bolder thinking about the diverse forms that increased nuclear sharing might take.

Q. If Australia’s government has concerns regarding the credibility of the U.S. extended nuclear deterrent, what are the root causes of these concerns and their priority?

A. There are concerns about the duration and prioritization of U.S. engagement in the world, doubts about whether the pivot to Asia really was a pivot, and uncertainty about how much we should expect to change. Ukraine shows important equities in other parts of the world and the pivot to Asia appears remarkably long-time coming.

For some decades, Australian governments have quietly believed that if Australia was attacked the United States would have little choice but to come to the assistance of its ally. Australian membership of the Five Eyes arrangements was thought to strengthen the U.S. treaty assurance to something closer to a guarantee. But those calculations have been the subject of renewed speculation given the uncertainties that a candidate like Donald Trump brings to U.S. policy, which could be chaotic for years.

Q. How does the U.S. extended deterrence need to change given the negative security developments, particularly China’s rise and Russia’s full-scale invasion of Ukraine?

A. In all likelihood the security environment will be worse in 10 years than it is now, and demand for assurance will outrun the supply. As that happens, the United States will need to be aware of overreach and will have to prioritize. That suggests we’re going to be looking at a ‘shake-out’ of current alliances, and a more selective form of U.S. strategic engagement. U.S. extended deterrence will probably evolve to match that new pattern of engagement. It is not just that the United States needs to follow through on its current program of strategic nuclear modernization—although that’s a necessary, if not sufficient, condition for sustaining the credibility of extended nuclear deterrence in the years to come. After all, allies are protected best by a soundly-defended United States.

But the current U.S. nuclear arsenal lacks diversity, particularly on the non-strategic side given that nuclear deterrence seems more likely to break at the regional rather than the intercontinental level. Nowadays, the U.S. non-strategic nuclear arsenal is a mere shadow of what it used to be through much of the Cold War. It would seem to need not only more nuclear warheads, but more kinds of nuclear weapons, and—especially in the Indo-Pacific—more deployment options. The Presidential Nuclear Initiatives (PNIs) of 1991, which removed non-strategic nuclear warheads from surface vessels, attack submarines and naval

aviation, are now acutely felt in a region lacking ground-based deployments in allied countries.

Q. The United States continues to promote arms control policies and to expect that arms control policies can solve security problems. Some of these U.S. arms control endeavors appear to have damaged U.S. capabilities for extended deterrence and assurance (e.g. no-first use policy, retirement of the Tomahawk Land Attack Missile/Nuclear, or PNIs). How does the Australian government think about the tensions between pursuing arms control goals and damage these goals cause to extended deterrence and assurance in the long-term?

A. This is not a subject upon which the Australian government is inclined to speculate publicly. The dominant paradigm is inclined to see arms control as a method of enhancing stability—classically, arms race stability and crisis stability. Nowadays, that includes the danger of a U.S.-China strategic relationship which slips into conflict because of a lack of ‘guard rails’. By contrast, the government is reluctant to venture too closely to any form of endorsement of the Treaty on the Prohibition of Nuclear Weapons (TPNW), despite pressure from anti-nuclear activists and some of its own back bench.

Q. How does the Australian government communicate its policy preferences to the United States?

A. There is no shortage of meetings between the government, and there is even some belated recognition in Australia that we need more dialogue, particularly on missile defense issues.

When one considers the levels of dialogue, the most valuable is a leader-to-leader dialogue. That one is also the most important because on the nuclear level, the U.S. president is the sole authority for launching nuclear weapons, so other commitments do not have as much value as the president committing to the defense of an alliance with all available means.

The closest one gets to the presidential articulation of a specific U.S. extended nuclear deterrence commitment to Australia is President Richard Nixon’s Guam Doctrine, but that commitment—part of a generic assurance to allies in the Asia-Pacific—is thin and dated. The United States should be clearer in what it is offering for Australia’s defense and what Australia is accepting as a consequence.

Ideally, one would reach an Australian version of the Biden Administration’s Washington Declaration, but that would be very difficult for Australia’s domestic politics.

Below a leader-to-leader level, there is an entire range of government-to-government meetings, but most of this activity—with the notable exception of the annual Australia-United States Ministerial Consultations—has little public profile, and Australians would probably not feel assured if they knew about it. AUKUS, for example, helps to sustain the alliance; but it does so at the price of presenting nuclear propulsion as good, but nuclear weapons as bad.

The third level of contacts are trusted advisors, or people outside the government who know the issues and can effectively communicate them to others. Kim Beazley is an example of a defense and security realist and a good communicator; but his generation is passing, and we haven't identified the replacements.

Q. In your experience, do U.S. government officials interpret such communication in a way the Australian government intends it?

A. Yes, if Australia knows its own mind, and it is not always clear it does; the closer one gets to the core of extended deterrence, the less thinking we have done about it.

Q. What steps could the United States take to improve bilateral communication related to U.S. nuclear weapons and extended deterrence?

A. Australia needs to clarify its own thinking; it needs to do that by growing its own base of nuclear expertise, which it does not have at the moment.

Q. What steps could allied countries practically take to improve bilateral communication related to communicating their assurance requirements to the United States?

A. They could and should take more interest in nuclear strategy and assurance issues. We need to improve the depth and quality of nuclear thinking in Australia and that would go a long way in improving bilateral communication. We need a new generation of talented civilians to fill this gap.

Q. In your experience, which ways of communication did you find most effective in terms of assuring the Australian government?

A. One of the most effective ways to communicate are repeated and reinforcing leader-to-leader exchanges akin to the Washington Declaration. But, as I've said, Australia has to do more to clarify its own thinking. Channels of communication work best when both parties know their own minds and have things to say. In today's environment we need to be comfortable addressing hard topics, such as the growing possibility of nuclear proliferation by advanced, status-quo-supporting states. It is ironic that we can stop proliferators we like, but not the ones we don't like; the risk calculus always works against us.

Q. In your opinion, what would be the best way to promote an informed debate on U.S. nuclear weapons policy in Australia?

A. It would be difficult to do so because the government does not want to stir up a debate on nuclear issues. So there's little interest in an informed debate. Maybe the Australian

Minister for Defence could make a speech on nuclear deterrence, but even that might be too difficult domestically.

The other way to promote debate is to use a U.S. trigger as it were, such as the Strategic Posture Commission report. The key question is how do we follow up in ways that bring the problem back to Australia. Thinking on these important matters is practically non-existent here; there are no deep-thinking nuclear theorists in Australian party government. That's not unreasonable: political leaders tend to be pragmatists concerned with the problems of governance. But a public debate that was not well led would be problematic. The nuclear issue could easily become misrepresented and polarizing among Australia's population, which generally isn't well informed about nuclear issues.

Q. What is the state of the public debate regarding the value of alliance with the United States, the credibility of U.S. extended deterrence, and nuclear disarmament, inter alia.

A. The value of the alliance with the United States is generally accepted and its approval is consistently high in the public polls. Public debate on nuclear issues is under-cooked. If these issues are discussed, they are mostly in the form of rancorous and ill-informed exchanges in which people talk past each other.

Communicating about the threat would perhaps help some, but there is a two-level denialism in the Australian government. One, some deny that China is a threat and two, some deny that nuclear weapons make a useful contribution to deterring a more dominant China. In some ways China was perceived more as a threat back in 2017, when it imposed sanctions against various trade groups, than it is now. Some in the government would say this is how great powers behave and China is a great power so there's a degree of pushiness that we have to tolerate. Focusing on China would not be enough by itself.

The government has yet to internalize just how much has changed. We have great powers behaving coercively with nuclear weapons (Russia, China, North Korea), Iran on a nuclear threshold, and the security environment will be worse ten years down the road.

Ukraine shows a nuclear-armed power acting in an aggressive coercive way, which is more than unsettling, especially if China and Russia cooperate and become Eurasian hegemons. This is partly why nuclear deterrence is more important now than it has been in decades.

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An Interview with Dong-hyun Kim, International Broadcast Journalist *Voice of America*

Q. If the Republic of Korea (ROK or South Korea) has concerns regarding the credibility of the U.S. extended nuclear deterrent, what are the root causes of these concerns with regard to the South Korea's government's views and their priority?

A. South Korea is always under a nuclear threat and the outcome of negotiations between the United States and North Korea will play an important role in South Korea's perception of its sovereignty and security.

We are concerned because of the mismatch between U.S. nuclear modernization funding and South Korea's threat perceptions, although most South Koreans do not understand the scope of the challenge to U.S. nuclear modernization. In other words, we are concerned whether the United States will have the necessary nuclear capabilities to deter evolving and advancing threats. We perceive negatively that the Biden Administration appears to be giving up the Sea-Launched Cruise Missile.

South Korea is concerned over the U.S. demand for burden-sharing, which became a very salient issue during President Donald Trump's tenure. The South Korean public perceives the United States as its principal ally, and then wonders why it is so stingy since presence of United States Forces Korea is believed to be crucial for U.S. own national security interest whether its geopolitical role serves against North Korea aggression or vis-à-vis a greater competition against the People's Republic of China

Q. If South Korea has concerns regarding the credibility of the U.S. extended nuclear deterrent, what measures could the United States take to help address these concerns?

A. The current government sees less hope for denuclearization for the foreseeable future, and so it now focuses much more on conventional deterrence. Conventional deterrence needs to be strengthened while the United States continues to provide nuclear guarantees.

South Korea is noticing the development of offensive options in the United States (e.g., left of launch) leading to a more aggressive deterrence posture. South Korea is thinking through a much more active defense posture, too. It recognizes the priority to be a rigorous and active defense, including strong signals from the ROK's president about decapitating the DPRK's leadership in the case of a conflict. China and Russia are building hypersonic weapons, which gives us less faith in missile defense.

Q. How does the U.S. extended deterrence need to change given the negative security developments, particularly China's rise and Russia's full-scale invasion of Ukraine?

A. Russia's invasion of Ukraine resonates quite a bit because of the DPRK's help to Russia. South Korea's defense industry-related exports got a boost because of war. While the cooperation between China and Russia is concerning, the priority for us is North Korea. The situation raises concerns over how much attention can the United States spare for North Korea given all the other developments. There is a certain nervousness about U.S. comments regarding two-peer adversaries. The primary threats to U.S. interests are Russia and China, while the DPRK and Iran are considered secondary. This prioritization makes South Korea nervous because there is a limited amount of equipment and an insufficient U.S. modernization budget.

What if China invaded Taiwan? How much would the United States commit to that fight versus saving for a fight with North Korea? Would the United States care less about South Korea in such a hypothetical? The prioritization of U.S. resources is a major concern when it comes to extended deterrence and assurance. Additionally, the credibility of the nuclear umbrella deteriorated during the Trump Administration. This is because the persona of the president is associated with nuclear weapon use, which led to questions whether the president would be willing to trade California for South Korea.

South Korea, the United States, and Japan should address the threat of North Korea, Russia, and China, but their publics do not want to do that if it impacts their economic well-being. South Korea is less concerned about China and Russia, but more focused on North Korea and what would happen to extended deterrence vis-à-vis North Korea if the U.S. focus shifted to Russia and China.

South Korea's geopolitical situation is such that we do not want the current confrontation with China because of the market (China had been our largest trading partner, the United States our second largest trading partner for decades). South Korea is very uncomfortable with threats between China and the United States and worries that South Korea's interests will be neglected in the confrontation. The South Korean government wants to strengthen the Indo-Pacific, but not so much that it would antagonize China, which in turn complicates relations with the United States. To us, it is difficult to see that China would be a worse long-term threat than the DPRK. China's alignment with Russia is complicating the matters further.

Q. What steps could the United States take to improve bilateral communication related to U.S. nuclear weapons and extended deterrence?

A. I think the government officials in South Korea clearly understand the U.S. extended deterrence posture, but the problem is with the general public's understanding.

Q. What steps could allied countries practically take to improve bilateral communication related to communicating their assurance requirements to the United States?

A. Reassurances by U.S. officials are important, so is linking programs and weapon system rationales to their missions in the context of extended deterrence and assurance. The United States ought to communicate with foreign journalists more because information from official news briefings makes its way to foreign press. Logical explanations can boost credibility. The public diplomacy link to the South Korean public is very weak and that is something we should change. We ought to have more articles written by U.S. and South Korea's government officials. Defense companies' press releases can link a weapon system's capabilities to a regional context and ought to be a part of this public diplomacy effort.

U.S. position emphasizes the strength of nuclear umbrella now, but that may not be enough for South Korea as the threat evolves. The South Koreans are told that nuclear sharing is not possible, but U.S. officials do not explain to the public why nuclear sharing is not an option in South Korea. A better explanation of how nuclear sharing works in the North Atlantic Treaty Organization (NATO) is important, because South Koreans do not know that.

Q. In your opinion, what would be the best way to promote an informed debate on U.S. nuclear weapons policy in South Korea?

A. Increasing the visibility of the strategic assets is helpful and significant. We feel safe when the systems are closer rather than further away. This also explains why the notion of having tactical nuclear weapons on South Korea's territory is so popular; we want to feel safe.

Q. What is the state of the public debate regarding the value of alliance with the United States, the credibility of U.S. extended deterrence, and nuclear disarmament, inter alia.

A. There is a difference between the government's and the public's thinking on U.S. extended deterrence. South Korea's presidential candidates discussed problems with extended deterrence during the debates, and the previous unsuccessful candidate spoke in favor of nuclear sharing akin to NATO's. The public's support for an independent nuclear deterrence or the re-deployment option of U.S. nuclear weapons to the Korean Peninsula is very high. The government in Seoul has to reflect how the nation feels.

The support for a nuclear program pre-dates North Korea's nuclear program and goes back to the 1980s and 1990s. It stems from our notions about sovereignty as much as North Korea's evolving threat. The liberals and the conservatives differ on many policy issues, but they understand that the best option is sticking with U.S. deterrence policy and focus on a much more practical approach of increasing engagement between South Korea and the United States. They use the public support for an independent deterrent or U.S. redeployed tactical nuclear weapons as a tool to pressure the U.S. administration to make nuclear assurances more robust.

South Korea and Japan were very seriously against the no-first use (NFU) policy. Japan was very vocal in terms of trying to stop the Biden administration from including that policy in the *Nuclear Posture Review*. How realistic the NFU policy is would require a more robust public discussion.



PROCEEDINGS

LESSONS LEARNED FROM THE ISRAEL-HAMAS CONFLICT AND IMPLICATIONS FOR DETERRENCE

The remarks below were delivered at a symposium on “Lessons Learned from the Israel-Hamas Conflict and Implications for Deterrence” hosted by the National Institute for Public Policy on January 10, 2024. The symposium examined deterrence lessons that may be learned from Israel’s experience in combatting Hamas after the October 7, 2023 terrorist attacks and from repeated Iranian-backed attacks on U.S. assets in the region. It also considered what those lessons learned might suggest more broadly for other U.S. deterrence goals and strategies.

David J. Trachtenberg

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

Since the horrendous October 7 terrorist attacks by Hamas on Israel, the Israel Defense Forces have been conducting a military campaign in Gaza (code-named “Operation Swords of Iron”) to destroy Hamas. The extensiveness of this campaign has led the Biden Administration to call on Israel to exercise greater restraint in its military operations in order to avoid civilian casualties. And the longer the conflict has gone on, with its attendant human toll, the more world public opinion has turned against Israel, with Israeli military strikes being criticized as “excessive,” suggestions that Israel is responsible for “war crimes” in Gaza, and growing international calls for an immediate cease-fire, which would grant Hamas breathing space to regroup and possibly avoid being eradicated as a terrorist force.

In addition to Hamas’ actions, Hezbollah has fired rockets from Lebanon into Israel. Houthis in Yemen have attacked commercial merchant ships in international waters. And Iranian-backed militias have launched more than one hundred thirty missile attacks against U.S. personnel and bases in Iraq and Syria.

The implications of this conflict for deterrence are profound, yet poorly understood. The Biden Administration has responded to Iranian Revolutionary Guard Corps-inspired attacks on U.S. military personnel with occasional, limited strikes in an effort to deter further Iranian-linked aggression and has warned the Houthis against further attacks. Yet the threat stubbornly persists. After the United States and its allies delivered a so-called “final warning,” the Houthis responded by blowing up an unmanned surface vessel near a U.S. Navy ship. And just yesterday, they launched their largest barrage of drones, ballistic, and cruise missiles against commercial shipping in the Red Sea.¹ What does this say about the credibility of American deterrent threats?

Last week, former Secretary of State Mike Pompeo stated that President Biden has “accelerated the rate of decay of our deterrence” as a result of the U.S. response to multiple

¹ John Gambrell, “Yemen’s Houthis launch their largest Red Sea drone and missile attack, though no damage is reported,” *Associated Press*, January 10, 2024, available at <https://apnews.com/article/yemen-houthi-rebels-red-sea-attacks-israel-f820b848eb76fa3ecc8056ca332cabae>.



crises, including the Middle East conflict.² And a former USCENTCOM commander wrote that the U.S. response has been “tentative, overly signaled and unfocused” and that making escalation avoidance the top priority “sends an unhelpful signal to our adversaries as well as our friends and allies.” He concluded that “it is the U.S. that is being deterred, not Iran and its proxies.”³

These comments raise troubling questions. Among the questions I hope we will address today are:

- Is U.S. support to Israel adequate to deter provocations from other regional actors such as Iran?
- How do U.S. adversaries, including Russia and China, perceive this conflict, and what lessons are they drawing from it?
- How do the different value structures of opponents affect the working of deterrence?
- Does an approach to the conduct of warfare, in line with the Law of Armed Conflict and the Just War tradition, weaken deterrence, especially against those who seek advantage by rejecting Just War principles?
- Does the “civilian casualties” narrative lessen the credibility of U.S. and Western deterrent threats?
- What lessons can we learn from Israel’s experience in this current conflict that can be applied to strengthen deterrence generally?
- And, what lessons, if any, can be drawn regarding nuclear deterrence vis-a-vis great powers?

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Keith B. Payne

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

The current Middle East war suggests broad lessons for great power nuclear deterrence. My remarks today focus on two lessons, based on a preliminary understanding of events.

First, this war demonstrates that the failure to anticipate threats can contribute to the lack of preparations to counter them, and the consequent failure of deterrence.

² Tara Suter, “Pompeo claims Biden administration has ‘accelerated the rate of decay’ in US deterrence,” *The Hill*, January 3, 2024, available at https://thehill.com/policy/defense/4387553-pompeo-claims-biden-administration-has-accelerated-the-rate-in-decay-of-us-deterrence/?utm_campaign=dfn-ebb&utm_medium=email&utm_source=sailthru&SToverlay=2002c2d9-c344-4bbb-8610-e5794efcfa7d.

³ Kenneth F. McKenzie, Jr., “Lesson of the Strike That Killed Soleimani,” *The Wall Street Journal*, January 5, 2024, available at <https://www.wsj.com/articles/lesson-of-the-soleimani-strike-quds-iran-deterrence-war-gaza-attacks-on-americans-5c9bbfa1>.

Israel apparently failed to anticipate and adequately prepare for Hamas' October 7 attack. This failure demonstrates that—even when the deterrer has great familiarity with an opponent—that opponent can behave in ways that defy expectations, and as a consequence, deterrence fails.

The lesson here is that Washington should never discount the possibility of an opponent's surprising aggression—no matter how accustomed U.S. leaders are to the soothing belief that an opponent would “never dare” attack. This belief often is the convenient and self-serving rationale for not preparing adequately for a threat, which is a recipe for deterrence failure.

Instead, hedging against unexpected threats simply is prudent because attacks deemed implausible by the target are not unusual in history, and preparedness helps deter. Washington should be very careful about which threats it conveniently shelves and declines to prepare for, and thus essentially decides not to try to deter.

This is an important point because the Biden Administration's *2022 Nuclear Posture Review* (NPR) actually eliminated “hedging” as a U.S. deterrence requirement—a requirement in place for many years. This is a dangerous policy mistake.

For example, many Western officials still appear to consider a nuclear attack against the United States or its allies to be “unthinkable.” After all, Putin and Xi have agreed that “a nuclear war cannot be won and must never be fought.”

Yet, what Putin actually appears to deem unthinkable is the continued independence of Ukraine, and for Xi, unthinkable is the continued independence of Taiwan. These beliefs hold dark implications for expanding Russian and Chinese nuclear threats and employment, and the failure of deterrence. Hedging against these threats now is critical.

In addition, rapidly increasing Russian and Chinese military cooperation points to the real potential for a coordinated Sino-Russian attack. Yet, the 2022 NPR says of this threat only that a simultaneous Sino-Russian attack “would constitute an extreme circumstance,” and then falls silent. This apparent lack of recognition and hedging against a looming threat is another recipe for deterrence failure.

A second lesson from the current Middle East conflict is that the high value liberal democracies rightly and laudably place on the welfare of their citizens can create an extreme deterrence disadvantage because it will be exploited by less scrupulous opponents.

Hamas shows a reckless disregard for the lives of the general population of Gaza while Israel consistently demonstrates the high value it places on Israeli lives. This familiar asymmetry in political values can determine a leadership's vulnerabilities, and the will and options available to each side—and thus the functioning of deterrence.

For example, Hamas clearly expected that taking hundreds of civilian hostages would provide a powerful tool to constrain Israel's post-attack options and actions. This very likely contributed to Hamas' calculation that the October 7 attack entailed acceptable risks, and to the consequent failure of deterrence. Israel does not have a comparable coercive tool to control Hamas' behavior and options given Hamas' obvious willingness to sacrifice the lives of the Gaza population.

The lesson for Washington today is profound. America's opponents are tyrannical authoritarian leaderships or dictatorships. Their exploitation of the asymmetry in political values will likely shape Washington's will and options in crises, and provide a potentially powerful coercive tool for opponents that does not exist for the United States.

Yet, most classic and contemporary nuclear deterrence analysis is essentially apolitical. It ignores the significance of such factors as asymmetrical political values and treats nuclear deterrence as a mechanistic balancing act based on the size and composition of nuclear arsenals. The question of which side possesses superior capabilities virtually always overshadows which has the strongest will. This apolitical approach is, again, a prelude to deterrence failure.

A mechanical conceptualization of deterrence is reflected in the current push by some academics to move U.S. deterrence policy back to the intentional targeting of civilians—as if targeting opponents' civilians holds the same deterrent effect for tyrannical foes as it does for Washington. It almost certainly does not and was rightly rejected as the basis for U.S. deterrence policy five decades ago.

An apolitical, mechanical conceptualization of deterrence also underlies the frequent suggestion by supposed experts that the Chinese nuclear buildup is not an urgent concern because the United States still retains more strategic nuclear weapons—as if China's current lack of strategic nuclear “parity” equates to a less capable and threatening strategic deterrent, and thus Washington need not take urgent action.

This mechanical conceptualization of deterrence simply ignores the reality that a relatively smaller Chinese nuclear arsenal will have outsized coercive effect on Washington given the asymmetry in political values.

In addition, when leadership values are highly asymmetrical, the notion that a “parity” or “essential equivalence” in nuclear capabilities will ensure comparable, mutual deterrence is hollow.

A parity in capabilities sounds balanced in a mechanical sense, but deterrence is not mechanics, and a parity in nuclear capabilities simply may not provide Washington the necessary deterrent effect when political values are asymmetrical. Yet, for decades, Washington's conceptualization of strategic deterrence and arms control has been built on the proposition that “parity” is the answer to “how much is enough” for nuclear deterrence.

In short, the Middle East war has again demonstrated the asymmetry of values separating liberal democracies from tyrannies. The broad deterrence lesson for Washington is that it must pursue credible deterrence effect, not according to the mistaken presumptions that China must reach nuclear parity before it poses an urgent nuclear threat, or that “parity” provides an informed standard of adequacy for U.S. forces.

In conclusion, the current Middle East war offers some deterrence lessons: 1) A presumption that deterrence will work can instead lead to its failure, because opponents often behave in ways that defy expectations and defeat deterrence; and 2) the conflicting values separating liberal democracies and authoritarian tyrannies can have greater effect on the functioning of deterrence than the balance of nuclear forces.

These realities must be acknowledged and taken into account as Washington seeks to simultaneously deter two great nuclear powers.

Ilan Berman

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

On October 7, 2023, the Palestinian terrorist group Hamas carried out a campaign of terror against Israel left more than 1,200 dead and resulted in the largest slaughter of Jews to take place since the Holocaust more than eight decades earlier. In response, Israel has launched a large-scale military offensive in the Gaza Strip with two concurrent (and potentially contradictory) goals: to remove Hamas from power in the Gaza Strip, and to secure the return of hostages remaining in Hamas captivity. In tandem with its military offensive against Hamas, however, Israel has experienced a deeper strategic shift, driven by the errors and miscalculations that made the atrocities of October 7th possible.

What were those? During the 1990s, hopes had run high that some form of a durable settlement to the Israeli-Palestinian confrontation was in fact possible. But over time, those expectations and successive Israeli governments focused less and less on the Palestinian “arena” in favor of other political and strategic priorities. The result was an “outside in” approach, in which Israel worked to forge bonds with multiple regional states. While this resulted in breakthroughs like the “Abraham Accords,” it also led to the “Palestinian question” receding in urgency, and Israeli governments adopting a policy relying on extensive surveillance and the assumption of eventual political moderation to manage the Palestinians.

The October 7th attacks underscored the bankruptcy of both of these assumptions, and in their aftermath Israel has begun to formulate a new strategic concept entailing a number of features:

Proactive defense – In recent years, the country had gravitated to a campaign of tactical operations designed to delay full-on conflict while eroding the capabilities of non-state actors like Hamas and Hezbollah. In the aftermath of October 7th, such a strategic posture is untenable, and the Israeli government is contemplating a reoccupation of Gaza as well as the need for conflict with Hezbollah to protect its northern cities.

Manpower needs – Historically, Israel has excelled in short, intense conflicts, and the protracted nature of the current war has exposed serious shortcomings in its military posture, including a need for greater sustained manpower. The resulting solutions being contemplated by the Israeli government (including a draft of Israel’s ultra-orthodox community, which historically has been exempt from national military service) has the power to reignite significant societal tensions.

Wartime economic footing – In the wake of October 7th, Israel’s government was forced to reconfigure the country’s budget, and plan for a state of perpetual war for the foreseeable future. Such an economic “war footing” will dramatically alter the country’s spending

priorities, and leech resources away from key sectors such as housing and infrastructure. It also has the potential to erode Israel's global economic standing.

Stockpiling – To keep pace with ongoing combat needs, multiple branches of the Israeli military are now dramatically ramping up their procurement efforts. This is intended not only to fully resource the country's current war with Hamas, but also to ensure the Israel Defense Forces (IDF) are properly equipped to prosecute a future conflict with Hezbollah in Lebanon.

These new priorities have profound implications for the future of Israel's strategic partnership with the United States. Already, the demands of Israel's new security realities have put pressure on the political *status quo* between the two countries in new and profound ways. Time will tell whether this will result in a fundamental reconfiguration of the long-standing bonds between Washington and Jerusalem.

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Ari Cicurel

Ari Cicurel is the Assistant Director of Foreign Policy at the Jewish Institute for National Security of America (JINSA).

Thank you for including me on this impressive panel. I'll focus my remarks on the absence of deterrence against the Iran-backed Houthis in the Red Sea and more broadly the absence of deterrence against Iran-backed groups from targeting U.S. personnel in Iraq and Syria as well.

Safeguarding the global freedom of navigation through international waterways, in particular, through critical Middle Eastern maritime chokepoints, is a core U.S. interest as a maritime nation and is crucial to the global economy. Approximately twelve percent of global trade transits the Red Sea, and 8.2 million barrels of oil per day travel through the Bab el-Mandeb Strait.⁴ The Ever Given container ship's blockage of the Suez Canal in 2021, costing an estimated \$9.6 billion daily, gives a clear indication of how disruption at a Middle Eastern maritime chokepoint can have an immense effect on global markets.⁵

Reflecting this importance, a core principle of the 2022 *National Security Strategy* was to "not allow foreign or regional powers to jeopardize freedom of navigation through the Middle East's waterways."⁶

⁴ Peter Eavis and Keith Bradsher, "Red Sea Attacks Leave Shipping Companies With Difficult Choices," *The New York Times*, January 6, 2024, available at <https://www.nytimes.com/2024/01/06/business/red-sea-shipping-houthi.html>; Marwa Rashad, Robert Harvey and Natalie Grover, "How would the Red Sea attacks affect gas shipping?" Reuters, December 19, 2023, available at <https://www.reuters.com/business/energy/how-would-red-sea-attacks-affect-gas-shipping-2023-12-19/>.

⁵ Justin Harper, "Suez blockage is holding up \$9.6bn of goods a day," *BBC*, March 26, 2021, available at <https://www.bbc.com/news/business-56533250>.

⁶ The White House, *National Security Strategy*, October 2022, p. 42, available at <https://www.whitehouse.gov/wp-content/uploads/2022/10/Biden-Harris-Administrations-National-Security-Strategy-10.2022.pdf>.

Yet, on at least 39 occasions since the start of the Israel-Hamas war, the Houthis have engaged in maritime aggression involving firing over 100 missiles and drones at commercial vessels, illegally seizing them, and harassing U.S. Navy and coalition ships in Middle Eastern waters.⁷ Initially, this focused on ships with ties to Israel, but the Houthis have since expanded their attacks to ships that have no apparent ties to Israel.⁸ The approximately 32 incidents of Iran-linked maritime aggression in December alone surpassed the 20 incidents throughout the rest of 2023 combined.⁹ These attacks in the Red Sea have had a deleterious effect on global commerce, with insurance premiums for commercial ships sharply increasing and major firms like BP, Maersk, and other shipping companies at least temporarily suspending travel through the Red Sea.¹⁰

The United States has deployed military assets to the Eastern Mediterranean and Middle East, including extending the deployment of the Ford Carrier Strike Group and deploying the Eisenhower Carrier Strike Group. These have helped protect ships, but the United States has not deterred the Houthis from attacking anything.¹¹ Initially, U.S. Naval vessels assisted commercial vessels in distress from Houthi attacks and intercepted incoming projectiles but did not launch strikes to target the Houthis at sea or on land who were responsible for the attacks. Therefore, the Houthis faced practically no cost for their attacks.

The creation of Operation Prosperity Guardian to better protect the Red Sea was an important measure to organize partners around concerted action to protect against Iran-backed maritime aggression.¹² U.S. Navy vessels and the task force have helped protect commercial shipping in Middle Eastern waters. However, Houthi attacks have continued. The task force offers better protection, but it is still a defensive, reactive posture.

Then, on December 31, U.S. helicopters returned fire and sank three Houthi vessels that had attacked them and a commercial ship in the Red Sea on multiple occasions, marking the first instance of the United States using military force to target Houthi fighters.¹³ While this

⁷ "US says it shot down four drones in southern Red Sea launched from Houthi-controlled areas in Yemen," *The Guardian*, December 23, 2023, available at <https://www.theguardian.com/world/2023/dec/24/us-says-it-shot-down-four-drones-in-southern-red-sea-launched-from-houthi-controlled-areas-in-yemen>.

⁸ Aziz El Yaakoubi, "Israeli-managed vessel hit by suspected Iranian drone, US official says," Reuters, November 25, 2023, available at <https://www.reuters.com/world/middle-east/israeli-managed-vessel-hit-by-suspected-iranian-drone-us-official-says-2023-11-25/>; Anna Coobin, "Houthi attacks close vital Red Sea route for Maersk's container ships," *CNN*, January 5, 2024, available at <https://www.cnn.com/2024/01/05/business/maersk-red-sea-shipping-suspended/index.html>.

⁹ For the latest number of maritime incidents, see JINSA's Iran Projectile Tracker, available at <https://jinsa.org/iran-projectile-tracker/>.

¹⁰ "Maersk will continue to pause all Red Sea shipments," Reuters, January 2, 2024, available at <https://www.reuters.com/world/middle-east/maersk-will-continue-pause-all-red-sea-shipments-2024-01-02/>.

¹¹ Luis Martinez, "Exclusive: US to bring back aircraft carrier from eastern Mediterranean," *ABC News*, December 31, 2023, available at <https://abcnews.go.com/International/exclusive-us-bring-back-gerald-r-ford-aircraft-carrier-eastern-mediterranean/story?id=106021259>.

¹² "What is U.S.-led Red Sea coalition and which countries are backing it?" Reuters, December 22, 2023, available at <https://www.reuters.com/world/us-red-sea-taskforce-gets-limited-backing-some-allies-2023-12-20/>.

¹³ Jacob Gronholt-Pedersen and Ahmed Elimam, "US sinks 3 ships, kills 10 after Houthi Red Sea attack," Reuters, available at <https://www.reuters.com/world/middle-east/maersk-pauses-red-sea-sailings-after-houthi-attack-container-ship-2023-12-31/>.

was an important transition from the United States only taking defensive measures to protect commercial vessels after the Houthis launched attacks, it also failed to deter further Houthi aggression in the Red Sea.

Moreover, the Iran and Houthi aggression at sea has been part of a widespread deterioration in deterrence against the Iranian regime. Iran-backed groups in Iraq and Syria have launched at least 130 attacks on U.S. personnel since October 17.¹⁴ Yet, the United States has launched only nine rounds of strikes against Iran-backed groups in Iraq and Syria. The frequency and strength of these strikes have increased over time, in particular with the recent strike against a senior Iran-backed militia commander in Baghdad, but they have neither degraded the ability of the Iran-backed groups to launch attacks nor deterred them from conducting further strikes.

So how does the United States move toward deterrence? What is needed is both having the capabilities and a clear demonstration of will, and right now the Iranian regime and its proxies clearly question the U.S. willingness to use stronger and more frequent military force.

Contrary to fears from U.S. officials that more U.S. strikes against the Houthis or other Iran-backed groups could expand the Israel-Hamas war to the rest of the region, U.S. restraint has encouraged the Iranian regime and the Houthis to continue their aggression, as well as further undermined deterrence against the Iran-backed groups in Iraq and Syria.

Instead, deterring these groups requires a clear U.S. willingness to launch consistent, strong strikes that target the fighters in Yemen, Syria, and Iraq who are responsible for attacks and hold the Iranian regime directly responsible for the aggression it enables.

As former U.S. Central Command commander Gen. Frank McKenzie said this month, “there’s a fine line between avoiding escalation and inviting continued opportunities for Iranian and Houthi attacks, based on a perceived fecklessness on our part” and “sometimes you’ve got to throw a pitch.”¹⁵

So far, the United States has mostly limited itself to playing defense amid the escalation of Iran-backed attacks. Unless that changes, Iran and the Houthis will stay on the offensive.¹⁶ Thank you and I look forward to the rest of the conversation.

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¹⁴ For the latest number of projectile attacks, see JINSA’s Iran Projectile Tracker, available at <https://jinsa.org/iran-projectile-tracker/>.

¹⁵ Lara Seligman, “Former Mideast commander calls on Biden to respond to Houthi attacks,” *Politico*, December 8, 2023, <https://www.politico.com/news/2023/12/08/u-s-needs-to-respond-to-houthis-after-red-sea-attacks-former-middle-east-commander-says-00130852>.

¹⁶ Mark I. Fox, John W. Miller, and Ari Cicurel, “To deter Houthi strikes in Red Sea, US must turn from defense to offense,” *Breaking Defense*, December 28, 2023, <https://breakingdefense.com/2023/12/to-deter-houthi-strikes-in-red-sea-us-must-turn-from-defense-to-offense/>.



PROCEEDINGS

NATO AT 75: UP TO THE CHALLENGE?

The remarks below were delivered at a symposium on “NATO at 75: Up to the Challenge?” hosted by the National Institute for Public Policy on March 19, 2024. The symposium explored NATO’s future in light of recent developments, including perceptions of the credibility of the U.S. extended nuclear deterrent; the alliance’s resolve to sustain support to Ukraine more than two years after Russia’s full-scale invasion; the effect of expanding NATO’s membership on alliance unity and solidarity; the future of NATO missile defense efforts; and what to expect from the NATO Washington Summit in July.

David J. Trachtenberg

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

Next month, the North Atlantic Treaty Organization will celebrate its 75th anniversary. Since its founding in 1949, NATO has grown in membership and its missions have evolved in response to a dynamic security environment. Initially intended to deter a Soviet attack on Western Europe, NATO forces have been engaged repeatedly in out-of-area operations, peacekeeping, cyber security, and other activities. Yet, within the alliance there are suggestions that NATO’s mission needs recalibration, with at least one candidate for the next Secretary General calling on NATO to “change and adapt” to the complexity and unpredictability of the current strategic environment.¹

Now 32 nations strong, most recently with the addition of Sweden, NATO has been called the most successful collective security alliance in history. And Finland’s accession more than doubled NATO’s border with Russia—exactly the opposite of what Vladimir Putin wanted. Indeed, Putin declared last week that Russia will now deploy troops along the Finnish border.² But the alliance is now being buffeted by competing pressures—including a revanchist and aggressive Russia that has eyes on reincorporating some of NATO’s newest members into the Russian empire; reinvigorated concerns in the United States over allied burdensharing and the failure of some NATO states to meet their agreed upon defense spending commitments³; and growing doubts over the credibility of U.S. security assurances and the U.S. extended nuclear deterrent.

Russia’s brazen invasion of Ukraine resulted in a strong display of unity among NATO members and financial, materiel, and logistical support for Kyiv’s defensive efforts. But the

¹ Klaus Iohannis, “Romanian president: A vision for NATO’s future,” Politico, March 12, 2024, available at <https://www.politico.eu/article/romanian-president-a-vision-for-natos-future/>.

² Paul Godfrey, “Putin says he will re-deploy troops along Finland border in response to NATO accession,” UPI, March 13, 2024, available at https://www.upi.com/Top_News/World-News/2024/03/13/Putin-threatens-Finland-border-troop-redeployment/2751710329197/.

³ NATO’s Annual Report, released last week, shows only 11 countries have met the goal of spending at least 2 percent of GDP on defense. See NATO, *The Secretary General’s Annual Report 2023*, March 2024, p. 50, available at https://www.nato.int/nato_static_fl2014/assets/pdf/2024/3/pdf/sgar23-en.pdf.



longer the conflict goes on, the more a sense of fatigue threatens to cause fissures and cracks in NATO's unity. Should Russia succeed in subjugating Ukraine, Poland or the Baltic states may be next on Moscow's menu, and the value of NATO as a collective security arrangement may be undermined.

Some have recently argued that NATO's process of decision-making by consensus needs to be reconsidered in light of a "much more diverse membership" and a willingness on the part of leaders of some member states to abuse the consensus process for political advantage in ways that are seen to benefit Russia. As several former U.S. and UK senior officials have suggested, the time has come to consider introducing "a majority voting procedure," saying, "This would make it impossible for one member state to serve Russia's interests by insisting on the consensus principle, thereby paralyzing the Alliance's ability to defend an ally from Russian aggression."⁴

This July's NATO Summit in Washington may provide an opportunity to discuss adapting the NATO decision-making process in order to avoid a potential situation where the need for consensus may actually stymie the alliance from invoking Article 5 in a serious crisis. And the continued enlargement of the alliance may, in itself, create additional challenges should a member state's policies diverge significantly from the rest of the alliance. For example, concerns over Turkey's policies in the past led to calls for NATO to consider a means to expel a member from the alliance—a virtual impossibility given the lack of any mechanism established by the North Atlantic Treaty to do so and the unlikelihood of a discordant member voting in favor of its own expulsion.⁵

On the nuclear issue, NATO's *2022 Strategic Concept* reiterates that "As long as nuclear weapons exist, NATO will remain a nuclear alliance."⁶ Nevertheless, NATO's nuclear posture is increasingly under strain, as Russian officials continue to make unprecedented coercive nuclear threats against NATO and the risks of possible Russian use of nuclear weapons are seen as increasingly worrisome. Russia's tactical, or non-strategic, nuclear arsenal continues to be modernized and by most unclassified estimates, exceeds NATO's nonstrategic nuclear arsenal by almost ten-to-one.⁷

As the congressional Strategic Posture Commission concluded, "Russia is projected to continue to expand and enhance its nuclear forces, with most of the growth concentrated in theater nuclear forces, thus increasing its decided numerical advantage over U.S. and allied

⁴ Eric S. Edelman, David Manning, and Franklin C. Miller, "NATO's decision process has an Achilles' heel," *Atlantic Council New Atlanticist*, March 12, 2024, available at <https://www.atlanticcouncil.org/blogs/new-atlanticist/natos-decision-process-has-an-achilles-heel/>.

⁵ See Michael Rubin, "Turkey Humiliated NATO; If NATO Can't Expel It, Here's Plan B," *Middle East Forum*, January 24, 2024, available at <https://www.meforum.org/65488/turkey-humiliated-nato-if-nato-cant-expel-it-here>. Also see Aurel Sari, "Can Turkey be Expelled from NATO? It's Legally Possible, Whether or Not Politically Prudent," *Just Security*, October 15, 2019, available at <https://www.justsecurity.org/66574/can-turkey-be-expelled-from-nato/>.

⁶ North Atlantic Treaty Organization, *NATO 2022 Strategic Concept*, p. 1, available at https://www.nato.int/nato_static_fl2014/assets/pdf/2022/6/pdf/290622-strategic-concept.pdf.

⁷ For a detailed discussion of Russia's nonstrategic nuclear weapons arsenal and its characteristics, see Mark B. Schneider, *How Many Nuclear Weapons Does Russia Have? The Size and Characteristics of the Russian Nuclear Stockpile*, *Occasional Paper*, Vol. 3, No. 8 (Fairfax, VA: National Institute Press, August 2023), pp. 169-210, available at <https://nipp.org/wp-content/uploads/2023/09/Vol.-3-No.-8.pdf>.

nuclear forces.”⁸ In addition, Putin himself has declared that Russia’s strategic nuclear Triad “is more modern than any other triad” including that of the United States and stated, “we are, of course, ready” for nuclear war. “Weapons exist in order to use them,” he said.⁹ Perhaps it is time for NATO to consider a more robust approach to missile defense. Indeed, NATO’s Annual Report for 2023, released last week, acknowledges “the crucial importance of air and missile defence.”¹⁰ How the alliance chooses to respond to the challenges posed by Russia will no doubt be an item of considerable interest at the Washington Summit.

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Jim Stokes

Jim Stokes is Director of Nuclear Policy at NATO.

Good afternoon, and many thanks to David and the National Institute for Public Policy for the invitation. I am delighted to join this outstanding panel today and mark the 75th anniversary of the Alliance with you.

As the Director for Nuclear Policy at NATO, I help shape the Alliance’s nuclear deterrence policies and posture, which, in the current geostrategic environment, has become ever more important.

I am speaking today in my personal capacity and not for NATO or the U.S. government.

On April 4th, we will celebrate NATO’s 75th anniversary. This will also mark 75 years of NATO as a nuclear Alliance. I want to highlight three aspects of NATO’s nuclear deterrence, which have endured from the past and will into the future.

First, the extended deterrence commitment of the United States to its NATO Allies has helped to preserve peace, prevent coercion and deter aggression. This commitment is vital to all Allies, because nuclear deterrence is the supreme guarantee of their security.

As you know, the independent nuclear forces of the UK and France also have a deterrent role, and contribute significantly to the overall security of the Alliance.

Three Allied nuclear powers, with their separate decision-making centres and independent nuclear forces, complicates an adversary’s decision-making calculus. We believe this maintains a high threshold for adversary employment of nuclear weapons against the Alliance.

Second, let’s discuss the inherently NATO part of the nuclear deterrence mission, often referred to as the “Dual-Capable Aircraft or DCA mission.” This is what we primarily focus

⁸ Madelyn R. Creedon, Jon L. Kyl, et. al., *AMERICA’S STRATEGIC POSTURE: The Final Report of the Congressional Commission on the Strategic Posture of the United States*, October 2023, p. 92, available at <https://www.ida.org/-/media/feature/publications/a/am/americas-strategic-posture/strategic-posture-commission-report.ashx>.

⁹ Guy Faulconbridge and Lidia Kelly, “Putin warns the West: Russia is ready for nuclear war,” *Reuters*, March 13, 2024, available at <https://www.reuters.com/world/europe/putin-says-russia-ready-nuclear-war-not-everything-rushing-it-2024-03-13/>.

¹⁰ NATO, *The Secretary General’s Annual Report 2023*, March 2024, op. cit., p. 30.

on at NATO Headquarters and at SHAPE, how we can best prepare NATO's theatre nuclear forces to deter aggression and, if that fails, to restore deterrence.

Today, NATO's theatre nuclear forces include U.S. nuclear gravity bombs forward-deployed in Europe as well as Allied Dual-Capable Aircraft that can employ those nuclear weapons, if authorized to do so.

In the 1950s, the United States began to station its atomic (and then nuclear) weapons in Europe, and certified Allied units to be capable of employing these weapons. These became known as NATO's nuclear sharing arrangements. The United States maintains full custody and control of its weapons in Europe as required by the Treaty on the Non-Proliferation of Nuclear Weapons (NPT).

In existence prior to the negotiation, and later entry into force of the NPT, NATO's nuclear sharing arrangements have been sustained by Allies for decades to deter Soviet, and now Russian aggression. These arrangements form the core of NATO's nuclear deterrence mission in Europe. They are vital to the credibility of NATO's deterrence posture. They are tangible proof of the trans-atlantic bond between North America and Europe. They are also a clear commitment by European Allies to collective security through nuclear deterrence, by providing aircraft or hosting U.S. weapons.

Additionally, Allies also contribute vital conventional capabilities. The DCA mission requires enabling air capabilities, including air-to-air refuelling, ISR, and suppression of enemy air defences. As SHAPE continues to transform, we will increasingly see a multi-domain approach to support NATO's nuclear mission.

So, the operational aspects of the DCA mission—of NATO's theatre nuclear deterrence mission—feature broad sharing of the nuclear burden across Allies.

Our nuclear posture in Europe is being modernized and strengthened, as the United States transitions to the B61-12 weapons, and Allies transition to the F-35. Several Allies are transitioning to the F-35A as a Dual-Capable Aircraft this year, and others will follow in future years. And many Allies are buying F-35s for conventional roles (a total of over 600), significantly bolstering our overall deterrence and defence (D&D) posture with the introduction of a 5th generation aircraft.

A final point about posture and capabilities: we are in the midst of a massive transformation of NATO's deterrence and defence posture on the conventional side. This is being led by GEN Cavoli, SACEUR, and SHAPE HQ. Allies are investing more and committing forces to SHAPE, which is developing plans and updating C2 structures.

All of this strengthens the Alliance's overall D&D posture, and will directly support the nuclear mission.

This brings me to my third point, about the collective burden shared by Allies for nuclear consultations and decision-making. While effective capabilities are required for successful deterrence, we also need to have the resolve to use them to defend ourselves. This is how we demonstrate credibility in deterrence.

Political unity is our biggest strength as an Alliance. It sends a powerful signal when NATO acts together. If contemplating the use of nuclear weapons in a crisis or conflict, united

action will be key to responding to any adversary—that NATO will not back down and let an adversary achieve its objectives.

All Allies, except France (which has chosen not to participate), share the political responsibility for nuclear policy-making, planning and force posture decisions through participation in NATO's Nuclear Planning Group (NPG), the senior nuclear decision-making body for the Alliance. Decisions are made by consensus. This ensures Allies maintain full political control over nuclear decision-making, meaning no decisions are pre-delegated to Military Authorities in peacetime, crisis, or in conflict. The NPG must authorize any and all nuclear-related actions.

This is why it is so critical that we focus on building better understanding of nuclear deterrence across Allies. We must:

- Think coherently across the conventional and nuclear aspects of a crisis or conflict, and how NATO should respond.
- Examine adversary doctrine, strategy, and capabilities.
- Better understand escalation dynamics, crisis decision-making, and strategic communications.

All of these activities also support nuclear risk reduction, so we can avoid inadvertent escalation, especially given the security environment Russia has created.

In sum, we need to be clear-eyed in our approach.

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LITERATURE REVIEW

Yaroslav Trofimov, *Our Enemies Shall Vanish* (New York, NY: Penguin Press, 2024), 400 pages.

Yaroslav Trofimov's *Our Enemies Shall Vanish* is a heart-wrenching account of the first year of Russia's full-scale invasion of Ukraine. Trofimov, a Kyiv-born and raised correspondent of *The Wall Street Journal*, begins by illuminating the most important moments in Ukraine's post-Cold War history. His main focus, however, is Russia's February 2022 full-scale invasion, or an expansion of the conflict Russia began with its takeover of Crimea and invasion of Donbas in 2014. He chronicles Ukraine's heroic defense and the incredible toll on the people, resources, and land.

Russia's full-scale invasion found Trofimov himself in Ukraine. The book draws on interviews, often conducted by the author himself at significant risk, with the Ukrainians first preparing for the beginning of Russia's full-scale invasion, resisting the invaders, witnessing the destruction of the occupied territories, beating the Russians back in some places, and failing to do so in others. Trofimov's interviews show Ukraine's heart: determined, unyielding, desperate.

The account also incorporates interviews with Western policymakers. It is a frustrating read for Ukraine's supporters. In hindsight, Western policymakers were too slow to provide substantive help—and the Ukrainians paid dearly. These politicians must have known of the scale of atrocities that the Russians committed in areas they conquered, and particularly in those they were forced to leave behind. Russia's is committing war crimes against the Ukrainian people on occupied territories. How different could the situation have been if the Ukrainians had been properly armed prior to Russia's full-scale invasion? How different could the situation have been if the West had not been deterred from providing advanced weapon systems until months after February 2022?

Few politicians thought Ukraine could survive as an independent state on the eve of Russia's February 2022 invasion. They were wrong and no one deserves more credit than the Ukrainians themselves for making it so. The author does not gloss over the fact that *some* Ukrainians welcomed the invaders. Kupyansk's mayor urged citizens to collaborate with the Russians and would not have the city put up any significant resistance. It fell into Russia's hands without firing a shot. Kherson, too, "turned out to be Ukraine's vulnerable underbelly," writes Trofimov. Other cities, like Okhtyrka and Kharkiv, stood against overwhelming odds and paid for their resistance by becoming targets of Russia's indiscriminate shelling. Mariupol, a city of nearly half a million people at the beginning of the full-scale war, was reduced to rubble in a months-long fight. So was Bakhmut, and many others. The Russians have caused devastation on a scale that Europe has not witnessed since World War II.

The individuals' stories make the book quite powerful. A comedian-turned-president refusing to leave Ukraine despite a significant danger to him and his family. Soldiers, ready to defend their homes and families, knowing all they hold dear will be erased if they yield. Volunteers cleaning up street debris after Russia's shelling to improve the morale. A mother killed by the Russians with her children trying to escape Moscow's imperialist clutches for



the second time, the first being after Russia's 2014 invasion of Donbas. Especially poignant are the stories of those that the Russian soldiers hurt, killed, and abused: women, children, and the elderly, by the millions. The luckier ones were displaced by Russia's war and became refugees in the West. The fighters and the helpers, ordinary people made extraordinary by the force of circumstances.

Ukraine's enemies shall vanish like dew in the morning sun, as the national anthem goes. Indeed, this review writer sincerely wishes it would happen sooner rather than later, and recommends Trofimov's book to everyone.

Reviewed by Michaela Dodge
National Institute for Public Policy

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Report on Deterrence in a World of Nuclear Multipolarity, Department of State, International Security Advisory Board, October 2023, 33 pages.

The Department of State's International Security Advisory Board (ISAB) is a little known federal advisory committee that provides independent advice to the State Department on a variety of international security issues, including arms control and disarmament matters. Its latest study, *Report on Deterrence in a World of Nuclear Multipolarity*, was commissioned by the State Department to consider "how to use the mutually reinforcing tools of deterrence and arms control to address the challenges of two future nuclear-armed strategic peers—Russia and China."¹

On the issue of deterrence, the report concludes that in an "era of nuclear multipolarity... it is no longer taken as a given that what is necessary to deter a single nuclear peer like Russia is adequate also to address the deterrence and assurance challenges posed by increasing nuclear arsenals in the PRC [China] and other states."² It acknowledges the risks of "opportunistic aggression," coercive nuclear threats, and the prospect of Sino-Russian "collusion."³ Given these risks, the reader might conclude that a recommendation to strengthen U.S. nuclear deterrence capabilities would be forthcoming. Instead, although the report acknowledges the need to tailor deterrence and assurance to individual circumstances, it states that the United States "does not need to pursue a strategy that relies on outnumbering" adversary nuclear forces for deterrence and assurance purposes. In fact, it argues that the credibility of the U.S. extended deterrent "cannot be successfully managed through enhanced nuclear or military capabilities," but rather "should be enhanced through

¹ Memorandum for Under Secretary of State Bonnie D. Jenkins, October 31, 2023, reprinted in Department of State, International Security Advisory Board, *Report on Deterrence in a World of Nuclear Multipolarity*, October 2023, available at https://www.state.gov/wp-content/uploads/2023/11/ISAB-Report-on-Deterrence-in-a-World-of-Nuclear-Multipolarity_Final-Accessible.pdf.

² Department of State, International Security Advisory Board, *Report on Deterrence in a World of Nuclear Multipolarity*, October 2023, p. 2.

³ *Ibid.*, p. 4.

diplomatic and other efforts.”⁴ It notes that “the United States should avoid unnecessary risk of arms races or crisis escalation” and should “continue to pursue appropriate and verifiable force reductions among nuclear powers.”⁵

Unsurprisingly, the report—drafted by a working group led by Jon Wolfsthal, a long-time arms control advocate and advisor to then-President Obama and Vice President Biden—argues for greater U.S. emphasis and reliance on arms control as a tool to enhance U.S. security. As the report asserts, “there should be *no question* that pursuing arms control and achieving it, backed by verification, remains in the U.S. security interest....”⁶ Such a proclamation is consistent with the Biden Administration’s *2022 Nuclear Posture Review*, which baldly asserted, “Mutual, verifiable nuclear arms control offers the most effective, durable and responsible path to reduce the role of nuclear weapons in our strategy and prevent their use.”⁷ Indeed, the ISAB report asserts that “Arms control has played an important role in managing the risks associated with nuclear deterrence, reducing the dangers of a conflict erupting or spiraling out of control.”⁸

In fact, there should be *every question* about the utility and effectiveness of arms control, as practiced, to ensure security and reduce the risks of conflict, given the long and problematic history of arms control agreements. This includes the near-unbroken record of Soviet and later Russian cheating on agreements that ultimately negated any possible benefit they might have had for U.S. security, as well as repeated examples of U.S. strategic self-restraint that went unreciprocated. For example, the dramatic Russian advantage in theater-based nuclear weapons that now rightly causes such concern in Europe is a direct result of Washington’s drive to reduce the role of nuclear weapons while Moscow moves in the opposite direction. Nevertheless, the ISAB report calls for taking a “broader” arms control approach “across domains, partners, and types of arrangements.”⁹ In other words, the answer to arms control’s historic failures is...more arms control.

Of course, the authors of this report must have realized the impracticality of their recommendations. Throughout the report, their advocacy of arms control agreements is caveated with phrases such as “even if the chances of pursuing and sustaining such talks are low,” “Even in the absence of success,” and “Even in a period where the prospects for arms control are unlikely.” These are valid caveats. They suggest the likely futility of the policy course the report espouses and contradict its theme of relying heavily on arms control to address America’s looming security challenges. Arms control options that are not practicable are not options.

⁴ Ibid., p. 5.

⁵ Ibid., p. 9.

⁶ Ibid., p. 11. (emphasis added)

⁷ Department of Defense, *2022 Nuclear Posture Review*, p. 1, available at <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF>.

⁸ Department of State, International Security Advisory Board, *Report on Deterrence in a World of Nuclear Multipolarity*, op. cit., p. 16.

⁹ Ibid., p. 10.

Nevertheless, the authors essentially subordinate deterrence to arms control, saying that “deterrence itself is not an end unto itself” and that “The United States should also demonstrate a commitment to processes that enhance U.S. security and lead to nuclear reductions and eventually disarmament, in support of long-standing U.S. policy.”¹⁰ Of course, the U.S. commitment to these goals, codified in Article 6 of the Nuclear Non-Proliferation Treaty (NPT), is evidenced by the dramatic reduction in the U.S. nuclear weapons stockpile by some 88 percent from its Cold War peak¹¹—a reduction that now looks increasingly imprudent in light of the plethora of coercive nuclear threats made by Russia and China, underwritten by the expansive growth in their respective nuclear arsenals.

Among the report’s more questionable recommendations are calls to “prepare to pursue future arms control with Russia and the PRC,” “encourage strategic stability dialogues with Beijing,” and “Build domestic consensus around the importance of... strengthening strategic stability, and future risk reduction and arms control efforts.”¹² These recommendations appear divorced from the report’s acknowledgement of the current geo-political environment. Moreover, the report parrots the supposed wisdom that U.S. nuclear deterrent options will be “less sustainable” without a commitment to “diplomatic solutions” like arms control. To suggest that a “sustainable” nuclear deterrent requires a commitment to reducing those systems that sustain the effectiveness and credibility of the U.S. deterrent in the first place puts a misplaced primacy on the latter objective rather than the former.

In general, the ISAB report and its recommendations might carry more weight and deserve more serious consideration if they were written in 2010 rather than in 2023. The then-expectations of a more benign security environment with Russia as a cooperative partner and China as a rising but cooperative power have been demolished by the contemporary realities of a more aggressive and assertive anti-American posture by both. While the ISAB report gives an obligatory nod to this reality, the disconnect between its assessment of the increasingly dangerous international security environment and its conclusions and recommendations to double down on arms control and disarmament efforts reflect the lost idealism of previous decades. While the current administration may believe in the triumph of hope over experience, this seldom leads to sound policy. A future administration should take heed.

*Reviewed by David J. Trachtenberg
National Institute for Public Policy*

¹⁰ Ibid., p. 20.

¹¹ Department of State, “Fact Sheet: Transparency in the U.S. Nuclear Weapons Stockpile,” October 5, 2021, available at https://www.state.gov/wp-content/uploads/2021/10/Fact-Sheet_Unclass_2021_final-v2-002.pdf.

¹² Department of State, International Security Advisory Board, *Report on Deterrence in a World of Nuclear Multipolarity*, op. cit., pp. 22-23.

Luke Griffith, *Unraveling the Gray Area Problem: The United States and the INF Treaty* (Ithaca, NY: Cornell University Press, 2023), 312 pages.

The United States left the Intermediate-range Nuclear Forces (INF) Treaty in 2019 after years of trying, unsuccessfully, to persuade Russia to cease its violations and return to compliance—but the INF Treaty still has much to teach students of diplomacy, arms control, and strategy. Luke Griffith, professor of government and history at New Mexico Junior College, utilizes recently declassified U.S. documents as well as new interviews with U.S. officials who participated in the leadup to and negotiation of the INF Treaty to produce his new book, *Unraveling the Gray Area Problem: The United States and the INF Treaty*.

The “gray area problem” Griffith ably recounts was the growth of Soviet intermediate range nuclear forces during the late 1970s through the 1980s. The Strategic Arms Limitation Talks (SALT) between the United States and the Soviet Union had limited intercontinental range nuclear forces, but a cap in one area inadvertently promoted competition in another area: intermediate range nuclear forces. At least, that is how the Soviet Union reacted—building up its SS-20 intermediate range ballistic missiles (IRBMs) that could carry up to three warheads each to threaten NATO targets throughout Europe and, secondarily, targets in China. The United States and its NATO allies were caught flat-footed by the Soviet buildup, a symptom perhaps of the Nixon and Carter Administrations’ commitment to détente.

With caps on intercontinental range nuclear forces and no appetite in NATO or the United States to attempt negotiating limits on theater-range nuclear forces (generally those with 500 km range and less) which were needed to offset the massive Soviet conventional force advantages, intermediate range nuclear forces became the focus of concern. One of the strengths of Griffith’s work is that it describes just how problematic this “gray area problem” was for both the Carter and Reagan Administrations. At home in the United States, prominent Democrats in Congress were committed to not rocking the boat of détente by producing new or more nuclear weapons to counter the Soviet threat, while prominent Republicans saw the Soviet intermediate-range nuclear buildup as evidence of détente’s failure. Abroad, there was a discordant chorus of allies seeking U.S. leadership and assurance in solving the gray area problem, but strong contingents of domestic anti-nuclear peace groups and differences in preferences on negotiating goals made solutions incredibly difficult to imagine. In short, fractions at home and fractions among allies abroad should have made the INF Treaty a near impossibility—but as Griffith demonstrates, the confluence of the right leaders at the right time made it possible.

Unraveling the Gray Area Problem proceeds chronologically, and Griffith wisely begins with the Enhanced Radiation Weapon (ERW) or “neutron bomb” fiasco, a little less than a year before the Carter Administration’s dual-track decision of proceeding with intermediate-range nuclear force modernization in combination with arms control negotiations. The ERW was meant to help assure NATO allies that the United States would not be decoupled from defending Europe against a Soviet invasion. President Carter, however, deferred the development of the ERW at the last minute, taking many allies by surprise, in large part because the allies had not been forthcoming with firm commitments to host the ERW when

it was ready for deployment. A deeply strained NATO alliance, a commitment to learn from mistakes, and the Carter Administration's desire to shore up its defense *bona fides* before an upcoming election all contributed to the development of the dual-track decision.

As Griffith makes clear throughout his book, U.S. political and defense leaders did not think of the U.S. Pershing II IRBMs and Gryphon ground-launched cruise missiles (GLCMs) purely as bargaining chips to trade for the Soviet SS-20s. Instead, U.S. military leaders saw the high-flying Pershing IIs and the low-flying Gryphons as unique stressors on the Soviet air defense network, with the lethal combination of speed and accuracy as added benefits to the force. U.S. and allied political leaders, meanwhile, agreed that forces based in Europe would have a greater assurance and extended deterrence effect than could be provided by air- and sea-based forces alone. The military and political reasons for deploying these intermediate-range systems produced the secondary benefit of conferring value on these systems for arms control negotiations with the Soviet Union—the only question was what an agreement might look like.

The Carter Administration sought to cap or reduce intermediate-range systems, labelling the “zero option” that the Reagan Administration ultimately came to favor as being too implausible. Here, Griffith helps clarify the historical record by demonstrating that Reagan Administration officials like Secretary of Defense Caspar Weinberger and Assistant Secretary of Defense Richard Perle were not trying to inject poison pills in the INF process by advocating for hardline negotiating tactics, as some historians have alleged; rather, they saw the United States as increasing its military and economic advantages over the Soviet Union in important areas—a development that enabled U.S. officials to pursue President Reagan's ultimate goal: moving past caps to obtain *reductions* in nuclear arms.

Unraveling the Gray Area Problem offers a concise history of the INF Treaty, from birth to death, and does so with copious citations of primary and secondary sources—splitting the book almost perfectly in half between text and endnotes. Griffith only stumbles in two areas, one minor and one of more significance. On the minor issue, the writing can at times be overly rigid, repeating whole phrases or sentences from previous chapters nearly word-for-word. On a more substantive note, Griffith unconvincingly seeks to apply the lessons learned from the INF Treaty to the current security environment. He assumes, more than argues, that since the INF Treaty, in his opinion, was a net benefit to U.S. security before, then the same can be said for a similar approach to current Russian and Chinese threats. This is not to say that the lessons he deduces from the INF Treaty (the importance of bargaining leverage, strong alliance communication, deep study of the adversary) are wrong—they are, in fact, correct; rather, it is not clear currently that a U.S. pursuit of caps or the elimination of intermediate-range forces in and near Russia and China would be inherently beneficial to U.S. or allied security. In short, current deterrence and assurance requirements are evolving so rapidly that the rigid application of the INF Treaty template on the situation is unhelpful.

Setting these concerns aside, *Unraveling the Gray Area Problem* is a deeply researched historical corrective on the leadup to and negotiation of the INF Treaty. Interested readers

and area specialists will both benefit from the text and its extensive endnotes—demonstrating once again that the INF Treaty still has more to teach.

*Reviewed by Matthew R. Costlow
National Institute for Public Policy*

Jared M. McKinney, Peter Harris, *Deterrence Gap: Avoiding War in the Taiwan Strait* (Carlisle, PA: United States Army War College Press, January 2024), 113 pages.

The most comprehensive and serious challenge to U.S. national security is the PRC's] coercive and increasingly aggressive endeavor to refashion the Indo-Pacific region and the international system to suit its interests and authoritarian preferences.

*2022 National Defense Strategy*¹³

As the National Defense Strategy states, the most serious security challenge the United States faces is from a revisionist PRC (People's Republic of China) and its desire to reshape the international order to better suit its desires. Central to this desire is the status of Taiwan and the PRC's long-term goal to unify with the island on its terms and settle the unfinished business of the Chinese civil war. Tensions over the status of Taiwan have increased dramatically in recent years, underscored by the PRC removing the language of "peaceful reunification" in the government's report given at the National People's Congress in March 2024.¹⁴ The United States, long the guarantor of Taiwan's security, has a strategy to deter the PRC from forceful unification that is based on strategic ambiguity, with U.S. policy stating that the U.S. military must have the capability to defend Taiwan without necessarily committing to its defense.¹⁵

It is in this increasingly tense and uncertain environment that Jared M. McKinney and Peter Harris have published their book *Deterrence Gap: Avoiding War in the Taiwan Strait*. McKinney and Harris take a holistic view of the problem space, reviewing how the United States and Taiwan deterred the PRC from 1949 to the present, examining how that deterrent has deteriorated over the years and outlining the key factors in the PRC's determination to unify with Taiwan in the near future. Finally, they conclude by exploring the implications for deterrence. The analysis builds throughout their research to paint a concerning downward trend in the deterrence of PRC aggression against Taiwan without any quick solutions to reverse this course.

¹³ United States Department of Defense, *National Defense Strategy of the United States of America*, Washington, D.C., 2022, p. 4.

¹⁴ Yew Lun Tian, Lauri Chen, "China Drops 'peaceful reunification' reference to Taiwan," *Reuters*, 5 March 2024.

¹⁵ See, Congress.gov. "H.R.2479 - 96th Congress (1979-1980): Taiwan Relations Act," April 10, 1979, available at <https://www.congress.gov/bill/96th-congress/house-bill/2479>.

The information space is rife with analyses of the potential for conflict with the PRC over Taiwan, but the strength in McKinney and Harris' *Deterrence Gap* is their discussion of deterrence from the lens of both constraints and restraints. Constraints are defined as factors that are applied externally, while restraints are part of the internal political, social and economic fabric that will also influence decision making. This provides a more holistic assessment of the factors impacting the PRC leadership decision calculus and acknowledges that self-imposed restraint can undermine deterrence. Using the constraints and restraints framework to better understand PRC leadership perceptions that are key to any decision to take Taiwan by force, McKinney and Harris are better able to assess how the deterrence strategy of the United States vis-à-vis Taiwan has eroded.

One of the key constraints identified by McKinney and Harris is the ability and resolve of Taiwan to defend itself. The figures the book presents on Taiwan's defense spending compared to that of the PRC are stark and concerning. Coupled with opinion polling data on the reluctance of Taiwan's society to support the effort that would be necessary to defeat a PRC invasion, it is not a stretch to question the resolve of Taiwan to resist. McKinney and Harris point out that this could increase the PRC's confidence in its ability to achieve a fait accompli when taking the island. The deep discussion in *Deterrence Gap* about Taiwan's ability to deter the PRC is refreshing. The vast majority of analyses produced about deterring PRC aggression against Taiwan focuses on the U.S. ability to deter that aggression, overlooking Taiwan's contribution or minimizing its importance. This removes Taiwan's agency in its own defense and in many ways infantilizes the island. *Deterrence Gap* reverses this trend, highlighting the necessity for Taiwan to be not only involved, but a leading force in any campaign to deter PRC aggression.

McKinney and Harris identify four restraints impacting the deterrence of PRC aggression against Taiwan, including the degradation of the silicon shield, the impending legitimacy crisis of the Chinese Communist Party and a closing window of opportunity. However, the deep dive analysis on the weakening of the One China framework is the most compelling. As the authors point out, even with diverging historical interpretations of the One China principle among the PRC, the United States and Taiwan, it still allowed for the PRC to consider the prospect of peaceful unification with Taiwan. However, this principle has been undermined by the actions of all three actors as *Deterrence Gap* details, often with the PRC, Taiwan and the United States degrading it in response to actions by one another. While the authors are careful not to assign blame, they do point out that if the One China principle is no longer perceived as a viable prospect, the PRC may perceive it has no choice but to unify with Taiwan by force. This is a highly motivating perception that will be difficult to influence in order to deter the PRC.

The warning McKinney and Harris outline in *Deterrence Gap* is dire, but not hopeless. Central to the recommendations the authors suggest is Taiwan taking the lead to address its shortfalls in order to increase the cost to the PRC of an invasion. Again, having Taiwan take a central and foundational role in reinforcing deterrence across the Taiwan Strait is an imperative first step, because, as the authors point out, Taiwan's will to resist is the center of deterrence gravity. Further, *Deterrence Gap* suggests a series of interlocking deterrence

measures by the United States and other Indo-Pacific powers both to constrain and incentivize the PRC to refrain from aggression against Taiwan. With *Deterrence Gap*, McKinney and Harris paint an increasingly dangerous and consequential situation, but offer concrete solutions to shore up deterrence in both the short and long term.

*Reviewed by Jennifer Bradley
United States Strategic Command*



DOCUMENTATION

Below are selections from United States Strategic Command (USSTRATCOM) and United States Northern Command (USNORTHCOM) testimony before the United States Senate Committee on Armed Services. The STRATCOM testimony illustrates the diverse and growing array of threats against the United States and its allies, while the NORTHCOM testimony provides insight into how U.S. leaders are planning to protect the homeland to counter rising threats. Also included in this section are select excerpts from the United Kingdom's (UK's) *Delivering the UK's Nuclear Deterrent as a National Endeavour*, which describes the massive endeavor that is the UK's independent nuclear deterrent. The document also outlines the government's support for each of the elements of the nuclear deterrent, including the infrastructure that supports the building of the UK's next generation of strategic submarines.

Document No. 1. Statement of Anthony J. Cotton, Commander, United States Strategic Command, before the United States Senate Committee on Armed Services, February 29, 2024, Select Excerpts

INTRODUCTION

United States Strategic Command (USSTRATCOM) is a global warfighting combatant command (CCMD). Our mission is to deter strategic attack through a safe, secure, effective, and credible global combat capability and, when directed, prevail in conflict. Our people are foundational to the Command's mission and success, ensuring the safety and security of our Nation and our Allies, 24 hours a day, 365 days a year. I want to thank the President, Secretary of Defense, and Chairman of the Joint Chiefs for their continued leadership in support of USSTRATCOM's mission areas. I would like to thank Congress for its continued support in providing USSTRATCOM with the necessary resources to execute our mission and for commissioning the recently-released bipartisan report on America's Strategic Posture, which provides valuable insight into our challenges and offers a number of recommendations to preserve existing advantages.

Today, the United States, its Allies, and partners continue to be confronted by two major nuclear powers as strategic competitors and potential adversaries: the People's Republic of China (PRC) and the Russian Federation. We are also faced with the growing nuclear threat posed by the Democratic People's Republic of Korea (DPRK) and Islamic Republic of Iran's continued expansion of its nuclear program. What's more, our potential adversaries are increasing their level of coordination and cooperation with one another. This threat environment raises the possibility of near-simultaneous conflicts with multiple nuclear-armed, opportunistic adversaries.

The United States addresses these challenges through integrated deterrence, campaigning, and actions that build enduring advantages—leveraging the capabilities of our Joint Force to ensure that the President has options to deter all potential adversaries. Integrated deterrence is the bedrock of our National Defense Strategy (NDS). As the NDS articulates, integrated deterrence spans all instruments of national power, all Allies and partners, all domains and capabilities, and is backstopped by a safe, secure, and effective



nuclear deterrent. USSTRATCOM's role, however, is not limited to nuclear plans and operations.

USSTRATCOM responsibilities span strategic deterrence, nuclear operations, nuclear command, control, and communications (NC3) enterprise operations, joint electromagnetic spectrum (EMS) operations (JEMSO), global strike, and missile threat assessment. Executing these responsibilities entails close alignment and collaboration with senior national and Department of Defense (DoD) leadership, CCMDs, defense agencies, and other elements of national power. Strategic deterrence is critical to the DoD's integrated deterrence approach.

OUR PEOPLE

To fulfill our strategic deterrence mission, USSTRATCOM relies on a team of military and civilian members who are steadfast in their dedication. People are the cornerstone of our organization, and I take pride in working alongside such a talented and dedicated group of professionals. I am committed to ensuring they have the support and resources needed to succeed, and I firmly believe that investing in our people is essential to our success. By providing comprehensive professional development opportunities, career-enhancing experiences, and targeted training programs to ensure our personnel are well-prepared to conquer the challenges ahead, we are fostering the growth of the next generation of strategic deterrence experts.

GLOBAL SECURITY ENVIRONMENT

The peace dividend once envisioned at the end of the Cold War has unfortunately failed to materialize in the long-term. Strategic competition is on the rise, including in the nuclear domain, as evidenced by Russia's comprehensive nuclear modernization efforts and the PRC's rapid and opaque nuclear weapons buildup. The emphasis on nuclear capabilities by potential adversaries, coupled with the incorporation of technologies like hypersonic weapons (HSW) and fractional orbital bombardment (FOB) capabilities, significantly escalates global security risks. As noted in the 2022 Nuclear Posture Review, the PRC and Russia also likely possess capabilities relevant to chemical and biological warfare that pose a threat to U.S., Allied, and partner forces, military operations, and civilian populations.

Taken individually, these developments are concerning; they are only exacerbated by the increasing levels of cooperation between and among the PRC, Russian Federation, DPRK, and Islamic Republic of Iran, which creates the possibility for simultaneous crises and raises the risk of opportunistic aggression. For example, Russian and PRC bombers flew joint patrols over the western Pacific this past November and conducted a joint maritime patrol near the Aleutian Islands over the summer. The DPRK and Iran have also delivered arms to Russia to support its war against Ukraine. This increasing cooperation and the risk of simultaneous crisis or conflict place a premium on credible, robust, and flexible joint force response options that signal our readiness and commitment to potential adversaries, Allies, and partners.

THE PEOPLE'S REPUBLIC OF CHINA

The 2022 NDS identified the PRC as the Department's pacing challenge and our most consequential strategic competitor. PRC leadership has stated that the expansion of nuclear UNCLASSIFIED 4 capabilities is necessary to achieve "great power status," and potentially perceives its nuclear arsenal as a key deterrent to U.S. intervention in the region. While the PRC's long-term nuclear strategy and requirements remain unclear, the trajectory of its efforts points toward a large nuclear and more diverse force with a high degree of survivability, reliability, and effectiveness.

The PRC currently has a nuclear triad consisting of bombers, submarines, and land-based missiles. Its H-6N bomber is equipped to carry air-launched ballistic and cruise missiles, and the PRC is actively developing a strategic stealth bomber, the H-20. The PRC also has six JIN-class ballistic missile submarines (SSBNs) equipped with new third-generation JL-3 submarine-launched ballistic missiles (SLBMs), capable of striking the continental United States from PRC littoral waters. Additionally, the PRC has approximately 1,000 medium and intermediate-range dual-capable conventional or nuclear ballistic missiles capable of inflicting significant damage to U.S., Allied, or partner forces and homelands in the Indo-Pacific.

As I reported to Congress in January 2023, the PRC's arsenal of land-based intercontinental ballistic missile (ICBM) launchers currently exceeds that of the United States. Today, the PRC likely has more than 500 operational nuclear warheads and, should it continue building weapons at its current pace, could have more than 1,000 nuclear warheads by 2030. In 2022, it built three new ICBM fields, with at least 300 missile silos, each capable of housing the solid-propellant CSS-10 Mod 2 ICBM. The PRC also maintains road mobile CSS-20 ICBMs, each armed with multiple independently targetable reentry vehicles (MIRV), and is developing a new generation of mobile ICBMs. These developments, combined with the PRC's increasing counter-space and cyber capabilities, pose a complex, but not insurmountable challenge to U.S. strategic deterrence.

RUSSIAN FEDERATION

The 2022 NDS identified Russia as an acute threat. Its unprovoked war against Ukraine has caused the largest conflict on the European continent since World War II and undermines the rules-based international system. The invasion has also highlighted Russia's willingness to employ nuclear coercion and attempt to influence decision making within the United States and our North Atlantic Treaty Organization (NATO) Allies. Russia's violation of specific obligations within the New Strategic Arms Reduction Treaty (New START) further exacerbates this issue.

Russia is currently in possession of the largest and most diverse nuclear arsenal of any nation. In September 2023, it proclaimed the RS-28 SARMAT ICBM had been placed on combat duty. Additionally, Russia continues to field new SEVERODVINSK-class nuclear-

powered cruise missile submarines, as well as DOLGORUKIY-class SSBNs, armed with the SSN-32 Bulava SLBM.

Beyond Russia's traditional strategic triad, it is expanding and modernizing its nuclear options. These include nuclear-capable hypersonic systems such as the Tsirkon land attack cruise missile and the Kinzhal air-launched ballistic missile, the last of which Russia has employed frequently against Ukraine in a conventional role. These hypersonic systems add diversity and flexibility to Russia's nuclear arsenal and complement its stockpile of approximately 2,000 theater nuclear weapons that do not fall under New START limits.

DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA

The DPRK views its nuclear arsenal as a means to ensure regime survival and influence Republic of Korea and U.S. forces in the area. The DPRK is developing and fielding mobile short-, intermediate-, and intercontinental-range nuclear capabilities that place the United States homeland and regional Allies and partners at risk. DPRK leadership recently declared that the country's status as a nuclear weapons state "has now become irreversible," and it is possible the DPRK will resume nuclear testing in order to demonstrate its capabilities.

ISLAMIC REPUBLIC OF IRAN

The Islamic Republic of Iran continues to expand its nuclear program by increasing its stockpile of highly enriched uranium and deploying additional advanced centrifuges, which has shortened the time Iran would need to acquire enough fissile material for a nuclear weapon. Iran already possesses the region's largest arsenal of conventional ballistic missiles, which threaten U.S. regional bases and are capable of reaching as far as Southern Europe. Iran also continues to proliferate advanced conventional weapons to non-state militia groups across the Middle East—which have been used in countless attacks against U.S. and partner personnel and interests across the region, undermining regional stability.

Document No. 2. Statement of General Gregory M. Guillot, United States Air Force, Commander, United States Northern Command and North American Aerospace Defense Command, before the United States Senate Committee on Armed Services, March 14, 2024, Select Excerpts

[Introduction]

Chairman Reed, Ranking Member Wicker, and distinguished members of the Committee: thank you for the opportunity to testify today and for the honor of representing the men and women of United States Northern Command (USNORTHCOM) and North American

Aerospace Defense Command (NORAD). Since assuming command in early February, my initial actions and priorities have included maintaining our vital homeland defense mission throughout a seamless leadership transition; strengthening USNORTHCOM and NORAD's vital network of Department of Defense (DoD), international, private sector, and interagency mission partners; and conducting a thorough assessment of the Commands' personnel, missions, and resourcing. I look forward to establishing personal relationships with leaders throughout the commands' area of responsibility and across the U.S. Government as those ties are critical to the successful execution of USNORTHCOM and NORAD's no-fail missions.

It is already apparent that the strategic environment facing the United States and Canada – and our allies and partners – presents significant risks to our homeland, our citizens, and our vital national interests. Across all domains and avenues, competitors are exploiting conflicts and crises around the world to undermine U.S. global leadership and our democratic institutions. Our competitors continue to develop and deploy highly advanced kinetic and non-kinetic weapons systems capable of disrupting or defeating military and civilian targets in North America. These threats are difficult to detect and can strike with limited warning, which reduces the time and response options available to our national leaders and increases the risk of miscalculation and escalation during periods of heightened tension, crisis, and conflict.

As recent events have made clear, overseas crises increasingly carry significant implications for homeland defense. Regional conflicts routinely have the potential to expand into broader crises that directly impact U.S. and allied interests. Russia's unprovoked war against Ukraine and the horrific October 7th Hamas terrorist attacks against Israel demonstrate how seemingly isolated events, regardless of whether the United States and our allies are directly involved, have the potential to reach our own shores. Those ripple effects can include competitor information operations directed against the American public and civil unrest and violence within the United States, or attacks directly targeting the United States and our interests.

Competitors like the People's Republic of China (PRC) and Russia are well aware that the U.S. military is the strongest in the world and highly capable of deploying forces anywhere on the planet to deter aggression and de-escalate potential crises. Accordingly, those competitors have sought to hold defense critical infrastructure in the United States at risk with kinetic and non-kinetic systems intended to impede our ability to flow forces overseas. That strategy must be taken into account in planning for the forward deployment of U.S. forces and resources, as moving assets overseas has the potential to affect the availability of assets assigned to homeland defense or force mobilization missions.

The realities of the 21st Century strategic environment require a flexible, adaptive global approach that recognizes the fact that our competitors can hold the U.S. homeland – and the homelands of our allies and partners – at risk with conventional, nuclear, and non-kinetic capabilities as part of a broad effort to force the United States to accept increased risk when deploying forces in support of overseas operations. Preserving the full range of options for defending U.S. national interests requires homeland defense to remain a fundamental consideration at every stage of DOD planning, policy, and budgeting.

A globally integrated approach to planning and actions must also extend beyond the Department of Defense and should be embraced by the whole of the U.S. Government. Success in competition, crisis, or conflict continues to rely on a ready, modern, and capable joint force reinforcing the other core elements of our national power. Our diplomatic corps is essential to shaping the strategic environment and cultivating the network of alliances and partnerships that provide the most significant U.S. advantage against isolated and authoritarian competitors seeking to expand their territory and influence at the expense of their sovereign neighbors. The successful execution of USNORTHCOM and NORAD's missions relies on cohesive strategies, integrated planning, and collaboration across the whole of government, and I look forward to working closely with the members of this Committee as we work together to meet the formidable challenges facing our nation.

...

USNORTHCOM and NORAD PRIORITIES

Against the backdrop of expanding and expansive threats, USNORTHCOM and NORAD remain dedicated to defending the U.S. and Canadian homelands today and well into the future. My key priority remains improved domain awareness in the approaches to North America and around the globe. The ability to detect, classify, and track potential threats to the homeland from the seafloor to space and in the cyber domain is a critical need for USNORTHCOM and NORAD – and for my fellow combatant commanders and international partners. Our core missions, to include defending critical defense infrastructure, require USNORTHCOM and NORAD to see and respond to threats through a globally integrated layered defense extending as far from our shores as possible. That capability is needed to ensure national leaders have as much time as possible to decide the best course of action for deterring, de-escalating, or defeating potential hostile acts.

Investments in capabilities such as Over-the-Horizon Radar (OTHR) and the Integrated Undersea Surveillance System (IUSS) will significantly enhance domain awareness in the air and maritime domains while limiting competitors' ability to approach North America undetected. Likewise, USNORTHCOM and NORAD's ability to track and defeat inbound DPRK long-range ballistic missiles will be significantly enhanced with the Long-Range Discrimination Radar (LRDR), currently planned for integration into the United States' ballistic missile defense architecture in the near future. I remain grateful to this Committee for your support of these important initiatives, and I urge continued emphasis on improving our nation's ability to find and monitor potential aggressors well before they could target our homeland.

The rapid pace of change in the strategic environment, to include advancing kinetic and non-kinetic threats and the increasing exploitation of the information space, give reason to believe that successful defense of the homeland tomorrow requires new approaches, technologies, and perspectives. As competitors increasingly focus on holding the homeland at risk in an effort to influence U.S. and allied decision-making and limit our options for

intervention in overseas crises, USNORTHCOM and NORAD are taking active measures today to ensure the ability of the commands to defend the homelands in the future.

The United States retains the world's most powerful military and a global network of immensely capable allies and partners. However, information flow between organizations and commands remains stifled by technological and institutional barriers, which too often results in delayed delivery and processing of critical information. Improving global domain awareness is absolutely necessary, but the Department must also expedite the processing and sharing of information between combatant commands, allies, partners, and the interagency community. The Department's prioritization of the Joint All-Domain Command and Control concept highlights the increasing importance of quickly sharing information between sensors, decision makers, and effectors. For USNORTHCOM and NORAD, the ability to detect potential threats, make well-informed recommendations to leaders, and take appropriate defensive measures is vital, and I will work closely with the Department and the Services to develop this critical capability.

Our nation must also continue to invest wisely in the military and civilian personnel responsible for planning and executing every one of USNORTHCOM and NORAD's no-fail missions. The demands of defending the homeland are significant and require an experienced and innovative professional workforce from a broad range of experiences and backgrounds. Our commands continue to prioritize recruiting and retaining exceptional talent from a broad and deep talent pool. Just as our nation makes substantial investments in cutting-edge technology to outpace our competitors, we must also invest in the dedicated service members and public servants who stand watch over our nation.

HOMELAND DEFENSE DESIGN NEXT

In recognition of the multi-domain threats to North America, USNORTHCOM and NORAD have prioritized operationalizing the commands and institutionalizing active campaigning in the homeland. Homeland defense begins well beyond our shores and relies on a layered, integrated defense conducted in full cooperation with our fellow combatant commands and our allies and partners. Rather than simply reacting to the actions of our competitors, USNORTHCOM and NORAD are taking active measures to assess the emerging threats and associated requirements of the near future in to ensure our ability to defend critical assets and safeguard the nation's ability to project forces forward.

The actions and ambitions of our competitors require the United States and Canada to demonstrate the capability to fight in and from North America, and the commands' homeland defense design will ensure our ability to defend the homeland in the coming decades. USNORTHCOM and NORAD's focus on campaigning and operationalizing the commands reflects competitors' growing capability and capacity to hold targets throughout North America at risk and to force U.S. and Canadian leaders to defend the continent while projecting forces overseas.

It is a near certainty that homeland defense in the coming years will rely less on point defense and traditional kinetic defeat mechanisms in favor of area defense and left-of-launch

effects that take full advantage of multi-domain capabilities. While the future of homeland defense may look vastly different than the current architecture, it will continue to depend on the pillars USNORTHCOM and NORAD use today – all-domain awareness; information dominance; decision superiority; and global integration. I look forward to working with the Department and Congress on these pillars.

The necessity of campaigning in and from North America has been made clear in recent years as competitors have repeatedly demonstrated the capability, capacity, and intent to hold the homeland at risk. USNORTHCOM and NORAD will continue to advance the commands' ability to conduct globally integrated joint operations in defense of the homeland. The commands will also benefit from the recent transition from the legacy USNORTHCOM and NORAD Command and Control Center (N2C2) to a Joint Operations Center (JOC) that mirrors the capabilities of fellow geographic combatant commands and allows for real-time, all-domain communications and coordination with the commands' DOD and interagency partners.

Finally, the success of homeland and continental defense requires capability and capacity to conduct sustained multi-domain operations in the Arctic. The challenges associated with communicating, operating, and surviving in the Arctic are well documented, and investment by the U.S. Government, the Department, and the military Services reflect the need to compete in the region now and well into the future. I am encouraged by national-level commitments to improving the Port of Nome and building the U.S. Coast Guard's icebreaker fleet; both efforts are visible signs of the U.S. commitment in the region that will support the economic and national security interests of the United States. The DoD and Services have readily acknowledged the importance of operating in far north in their respective Arctic strategies, and further emphasis and investment is necessary to field the Arctic-capable platforms, properly trained and equipped forces, and infrastructure necessary to succeed in a region of enormous strategic consequence. USNORTHCOM's Special Operations Command-North (SOCNORTH), has demonstrated both the value and challenges associated with Arctic operations through Combined and Joint Operations, activities, and investments in the High North. Most recently, SOCNORTH executed Exercise ARCTIC EDGE 24, readily integrating over 600 USSOF, Partner Nation SOF, and LEAs across the entire North American Arctic.

Documents No. 3. Delivering the UK's Nuclear Deterrent as a National Endeavour Presented to Parliament by the Secretary of State for Defence by Command of His Majesty, March 2024, Selected Excerpts

[...]

The UK's nuclear deterrence policy

The purpose of nuclear deterrence is to preserve peace, prevent coercion and deter aggression. A credible, independent nuclear deterrent remains essential to guarantee our security.

The view of successive UK governments is that an independent, minimum, credible nuclear deterrent, declared to the defence of NATO [North Atlantic Treaty Organization], is essential to our security and that of our NATO Allies. It is a critical part of our insurance against the risk and uncertainties of the future.

The UK maintains a Continuous-At-Sea Deterrent (CASD), delivered by the Royal Navy, since April 1969 under Operation RELENTLESS. It consists of at least one nuclear-powered submarine on patrol at all times, armed with the Trident missile system and UK sovereign nuclear warheads.

Our Vanguard Class SSBNs (Ship Submersible Ballistic Nuclear), which carry our nuclear weapons, are supported by a range of Royal Navy capabilities including our Astute Class SSNs (Ship Submersible Nuclear). These are conventionally armed, nuclear powered attack submarines that protect CASD as well as being capable of undertaking multiple defence and intelligence tasks.

We are deliberately ambiguous about precisely when, how and at what scale we would use our weapons. Alongside our decision to no longer publicise figures for our operational stockpile or deployed warheads, this posture enhances our deterrent effect by complicating the calculations of potential aggressors, thereby reducing the risk of deliberate nuclear use by those seeking a first-strike advantage.

The credibility of our deterrent is enhanced by ensuring it remains operationally independent. Only the Prime Minister can authorise the use of our nuclear weapons, even if deployed as part of a NATO response.

Potential aggressors know that the costs of attacking the UK, or our NATO allies, would far outweigh any benefit they could hope to achieve. This deters states from using their nuclear weapons against us or carrying out the most extreme threats to our national security.

The deterrent protects us every hour of every day. By providing a credible and effective response to extreme aggression, our nuclear deterrent reduces the likelihood of such an attack taking place.

This deters the most extreme threats to our national security and way of life, helping to guarantee our security and that of our NATO allies. It ensures that potential adversaries are dissuaded from using their capabilities to threaten or coerce the UK or our NATO allies, or to

deter us from taking the action required to maintain regional and global security and stability.

We are now in a period of heightened risk and volatility that is likely to last beyond the 2030s. We are therefore reaffirming our commitment to a credible nuclear deterrent and investing to sustain and renew our capabilities for as long as required, as this document sets out. We will keep our nuclear posture under review in light of the international security environment and the actions of potential adversaries.

At the same time, we remain committed to the ultimate goal of a world without nuclear weapons and support full implementation of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). There is no credible alternative route to disarmament. The UK continues to support the entry into force of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) and will continue to press for key steps towards multilateral disarmament through the NPT.

It is the firm view of this government that a world where the UK's potential adversaries have nuclear weapons and the UK (and NATO) does not, is not a safer world.

Our security is enhanced by our partnerships with our allies. We have a strong relationship and engagement with the US. Our standing as a responsible nuclear power remains an important part of our long history of defence cooperation, enhancing Euro-Atlantic security.

The UK works closely with the US on all nuclear matters, including nuclear policy, operations and technology. Our close relationship with France, our European nuclear ally, plays a critical role, including through our collaboration under the Lancaster House Treaties. This includes co-operation under the 2010 TEUTATES Treaty, through which we share research facilities and co-operate on technology. The UK and France are increasing co-operation on nuclear deterrence issues. The UK is also committed to building understanding and expertise on nuclear issues in NATO. This includes ensuring coherence between the Alliance's nuclear and conventional policies and developing the capabilities needed for the future.

Introduction: A National Endeavour

Delivering the UK Nuclear Deterrent: A National Endeavour

Day in, day out, right across the country and beyond, thousands of people in the public sector, military and industry are working together to achieve our shared mission: to deliver capabilities, deter the threat and protect the nation.

To sustain the deterrent for as long as it is needed, we are making the following commitments:

- we are investing £31 billion (with a £10 billion contingency) in the new **Dreadnought Class SSBNs** with the first boat due on patrol in the early 2030s;
- we are developing a **replacement UK sovereign warhead**, while maintaining our existing stockpile;

- we are recapitalising critical elements of our **infrastructure** to modernise our naval bases and manufacturing processes, supporting growth as we anticipate future fleet needs and weapons requirements;
- we are nearing completion of the UK's fleet of conventionally armed, nuclear powered **Astute Class SSNs** and have begun designing the **next generation of attack submarine, SSN-AUKUS**;
- we are enabling industry to plan for the future by working with the Department for Energy Security and Net Zero (DESNZ) to coordinate our defence activity with investment in the **civil nuclear sector**, itself critical to our energy security;
- we are enhancing nuclear power generation over the long term by investing in **nuclear technology**, with many parallels to the investments needed to support the UK's Energy Security Plan;
- we are working with industry partners to **safeguard our supply chains for the future**; and
- we are investing in **Barrow-in-Furness** as the home of nuclear submarine building in the UK, in recognition of its criticality to the nation's security.

These are some of the largest and most complex programmes ever seen. They require unique cutting-edge technology and world-leading expertise in science, engineering and manufacturing.

In order to deliver all of this:

- we continue to have a **close partnership with our most important ally, the US**, facilitated by the longstanding 1963 Polaris Sales Agreement and the 1958 Mutual Defense Agreement for broader cooperation and exchange;
- we continue our important **relationship with France**, our European nuclear ally, cooperating on technology and nuclear deterrence challenges. This includes our collaboration under the 2010 TEUTATES Treaty, through which we share research facilities;
- we are **strengthening our partnerships with industry**, particularly our prime suppliers Babcock International, BAE Systems and Rolls-Royce Submarines Ltd, with a focus on delivery to schedule;
- we have brought **AWE** [Atomic Weapons Establishment], which designs, manufactures and ensures the safety and efficacy of our warheads, back into the Ministry of Defence as a wholly owned arm's length body and have acquired **Sheffield Forgemasters**, who provide specialised steel, into public ownership, enabling closer alignment with our requirements;
- together with DESNZ, we launched the **Nuclear Skills Taskforce (NSTF)** to work with industry, academia and the education sector to increase the numbers of apprentices, graduates, and PhDs across the sector – this will ensure we can access the right skills for nuclear, providing new economic opportunities for thousands of people across the country;

- we will maintain the **scientific and engineering expertise** that ensures UK defence nuclear programmes fully comply with our international obligations and develop our ability to counter nuclear proliferation, prevent nuclear terrorism, identify and deter nuclear test explosions and verify future arms control regimes; and
- we will enable industry to plan for the future by working with DESNZ to coordinate our defence activity with investment in the **civil nuclear sector**, critical to our energy security.

Alongside investment in civil nuclear for our energy security needs, this breadth of activity amounts to a new era for the nuclear sector in the UK.

All these measures represent a significant undertaking and investment by the UK government and industry, with an enduring commitment for the decades ahead. This will generate economic opportunity across our UK supply chain, including submarine construction at BAE Systems in Barrow-in-Furness, submarine maintenance at the Babcock International site in Devonport, nuclear reactor development at Rolls-Royce Submarines Ltd in Derby and warhead design and manufacture at AWE in Berkshire.

This Command Paper sets out, for the first time, what it takes to deliver the nuclear deterrent.

It reaffirms our commitment to maintaining global stability, working with our allies including NATO, and reminds potential adversaries that we are ready to prevent coercion and deter aggression.

It represents a commitment to enhance our industrial base, working in closer partnership with academia and business, and a promise that we will maximise economic opportunity and invest in our communities.

It is also a call to action to everyone who contributes to safeguarding the security and prosperity of our nation by supporting the nuclear deterrent.

The Defence Nuclear Enterprise (DNE) is the partnership of organisations that operate, maintain, renew and sustain the UK's nuclear deterrent.

The nuclear deterrent is the Ministry of Defence's number one priority. In order to deliver our mission in the years ahead, the DNE is making several changes:

- we are strengthening its leadership, now headed by the newly appointed civilian Chief of Defence Nuclear and the First Sea Lord of the Royal Navy, enhancing coherence, senior focus and accountability;
- we are bringing together its core elements to work more closely than ever before: the Defence Nuclear Organisation (DNO), the Royal Navy, the Submarine Delivery Agency and AWE;
- we are operating a new ring-fenced budget and greater delegated spending authority, as well as more streamlined, robust governance;
- we are working with our industry and training partners to develop the skilled workforce that we will depend on in the coming years.

[...]

AUKUS: The trilateral security and defence partnership between Australia, the UK and the US

Through the development of SSN-AUKUS and our trilateral advanced capabilities portfolio, AUKUS is supporting a free and open Indo-Pacific, as well as driving technological progress and improving interoperability with two of our closest partners.

The AUKUS partnership is one of the most strategically important capability collaborations in decades. For all three countries, it will help meet our shared commitment to supporting stability and security through a free and open IndoPacific by progressing towards more unified defence and industrial collaboration, better information and technology sharing, and greater resilience, helping develop joint capabilities.

Pillar One of the partnership will see the UK and US assist Australia by developing a conventionally armed, nuclear powered submarine capability. The culmination of this will be a new SSN-AUKUS Class, based on the world-leading UK design currently under development.

Pillar Two of AUKUS is accelerating the development and delivery of advanced conventional (non-nuclear) capabilities. It includes regulatory and legislative measures to ease the export and transfer of technology and expands ways of sharing sensitive information. This will enable better integration of security and defence related science and technology, allowing AUKUS states to develop cutting-edge capabilities at the pace and scale of relevance, bolstering our respective industrial bases and supply chains. Through the development of SSN-AUKUS and our trilateral advanced capabilities portfolio, AUKUS is supporting a free and open Indo-Pacific, as well as driving technological progress and improving interoperability with two of our closest partners.

The partnership will enhance the UK's ability to operate in the Indo-Pacific. Future exercises will improve each nations' ability to work together and test the joint operation of advanced capabilities, radically improving a shared ability to tackle emerging threats. This sits alongside the UK and US establishing a rotational presence of SSNs in Australia to develop at-sea experience for Australian crews.

The government has allocated an initial £4 billion to BAE Systems, Rolls-Royce Submarines Ltd and Babcock International for the design phase and procurement of long-lead items for the UK's fleet. Australia has also committed to make a significant investment into the UK's submarine industrial base. BAE Systems, working with Australia's ASC Pty Ltd, will build Australia's SSN-AUKUS fleet. At its peak, over 21,000 people in the UK will be working on the SSN-AUKUS programme. The AUKUS partnership allows Australia to draw on over 60 years of British expertise in the design, build, and operation of nuclear submarines as they develop their own capabilities. All three AUKUS partners are committed to meeting their respective nuclear non-proliferation obligations.

[...]

Part One: Our people

Our advantage over our potential adversaries depends upon the ingenuity and dedication of our people. They are our most important asset.

The UK will significantly expand its nuclear workforce to meet the growing demand of the DNE and our future civil energy requirements. This will deliver economic opportunities and growth at nuclear locations across the country.

Driven by its involvement in cutting-edge scientific advancements, the UK has a growing demand for nuclear skills in both defence and civilian sectors. We need deep nuclear subject matter expertise, such as in science and engineering, with specialists in fuels, materials, warhead design and reactor physics.

The DNE is also highly dependent on many trades, such as welders, electricians, mechanical fitters, warhead component manufacturers and assemblers, who complement the thousands of employees in specialist functions such as project management, legal and commercial.

[...]

Part Two: Submarines

At least one nuclear-armed, nuclear-powered submarine has been covertly patrolling the world's oceans for over 50 years, carrying the UK's sovereign warheads. This is the Royal Navy's Operation RELENTLESS, the longest sustained military operation ever undertaken by the UK.

They are supported by maritime patrol aircraft which provide a seamless and world-leading anti-submarine warfare capability, while the Fleet Ready Escort is held at readiness to monitor, track and intercept adversary vessels approaching and transiting UK waters, deterring any attempts to intercept and disrupt our submarine operations. They are also supported by the wider UK defence and intelligence community.

[...]

SSBNs: Nuclear armed, nuclear powered

Invulnerable and undetected, our SSBNs guarantee our nuclear deterrent by patrolling the seas at all times, ready to respond to the most extreme threats to the UK.

Vanguard

Our four nuclear-powered Vanguard Class submarines are equipped with the Trident II D5 missile system and carry the UK's sovereign nuclear warheads. The Royal Navy has been operating CASD patrols in the Vanguard Class since 1993. Babcock International maintains our Vanguard Class fleet, including elements of the nuclear propulsion system, and Rolls-

Royce Submarines Ltd supports the nuclear propulsion system while in service. This extends the fleet's operational availability to deliver CASD operations and will continue until the fleet is replaced by the Dreadnought Class.

Dreadnought

The four Dreadnought Class submarines will begin to replace the Vanguard Class in the early 2030s. They will be the largest, most technically advanced SSBNs ever operated by the Royal Navy, equipped with a new generation of nuclear reactors to provide power and propulsion, designed and manufactured by Rolls-Royce Submarines Ltd. The design will incorporate a range of scientifically advanced electronic systems, sensors and tactical weapons, as well as housing the Trident II D5 missile system. They are designed and built in Barrow and represent a substantial investment into British industry. At its peak, industry estimate the Dreadnought programme will support around 30,000 jobs and it is reliant upon a supply chain of hundreds of companies based in the UK.

SSNs: Conventionally armed, nuclear powered

Protecting the UK's deterrent from hostile activity and detection, whilst supporting global operations.

Astute

The Astute Class was first introduced in 2014. They are nuclear powered but conventionally armed. They contribute to protecting the nuclear deterrent and maritime task groups, providing global strategic intelligence. They are fitted with advanced sonar, carry Spearfish torpedoes and can deliver a Tomahawk Land Attack Missile strike capability. They are the most powerful SSNs the Royal Navy has operated to date.

Astute is at the forefront of underwater warfare, combining the qualities of stealth, endurance, reach, speed, autonomy, flexibility and strike capability. These characteristics give the Astute Class unparalleled freedom of worldwide operations, including deep under ice, to support UK, NATO and coalition operations. Astute reflects the UK's investments in conventional forces that underpin the effective operation of the deterrent, support to carrier task group operations, anti-surface warfare, strategic intelligence collection and long-range precision strike. The UK's anti-submarine warfare and secure communications capabilities contribute to NATO's overall deterrence and defence posture.

The UK has four Astute Class submarines in service. The fifth, HMS Anson, is currently undertaking sea trials with the Royal Navy before joining operations. Completing the fleet, an additional two Astute Class submarines are under construction at the BAE Systems facility in Barrow-in-Furness.

SSN-AUKUS

SSN-AUKUS is a new class of nuclear-powered, conventionally armed attack submarine being developed in partnership with the US and Australia for the Royal Navy and Royal Australian Navy.

[...]

We are investing a share of the ring-fenced £3 billion funding announced in the 2023 Integrated Review Refresh into new facilities with advanced manufacturing capabilities in Barrow and Raynesway. SSN-AUKUS will enable deeper information and technology sharing and closer integration of security and defence-related science and technology, including propulsion plant systems, common vertical launch systems and conventional weapons from the US. They will be operational from the late 2030s, replacing the current Astute Class.

[...]

Part Three: Missiles and warheads

One of the DNE's core responsibilities is to ensure the UK maintains a safe, secure and reliable warhead stockpile.

Alongside this, our close partnership with the US provides the UK with access to the Trident II D5 missile stockpile. The missiles are fitted with a sovereign UK nuclear warhead. The UK and the US work together on nuclear matters through the Mutual Defense Agreement and the Polaris Sales Agreement.

Our capability is maintained by AWE's 7,000 strong workforce, with a cohort of 3,500 scientists and engineers working with industrial, government and academic partners.

In 2023, the UK completed an update of its warhead, transitioning from the Mk4 to the Mk4A by replacing non-nuclear components. The Mk4 warheads are being disassembled and their component elements reused, recycled or safely disposed of.

AWE has commenced work on a sovereign replacement warhead, as part of an evolutionary cycle that ensures we have an in-service warhead that can be safely assured from design to disposal. The design needs to be developed to meet future threats, taking advantage of new technology and manufacturing processes.

Trident missile system

Fitted with the UK's sovereign warhead, the Trident missile has a range of thousands of miles, ensuring the credibility and effectiveness of our deterrent.

The Trident II D5 Strategic Weapon System is manufactured in the US. It comprises the missiles and supporting systems fitted on the submarine as well as training and shore support equipment.

Under the 1963 Polaris Sales Agreement, the UK accesses a shared missile pool. Missiles are loaded into our submarines in Kings Bay, Georgia, US. The UK-manufactured warheads are mated to the missiles at HMNB Clyde.

The Trident system is operated by both the Royal Navy and US Navy. This enables mutual assurance of performance and safety. It remains one of the most enduring and effective examples of a strategic partnership between the two nations.

[...]

Transforming AWE

Modernising our infrastructure is fundamental to providing the UK with a safe and secure warhead capability.

AWE manages some of the most sensitive materials and advanced technologies in nuclear. It has already undertaken some of the biggest projects in defence to upgrade its unique facilities. These include the High Explosive Fabrication Facility for explosives manufacture, the Leo small components manufacturing facility and the Phoenix conventional manufacturing facility for the production of advanced material components, driving innovation in both construction and science fields.

These new facilities provide modern, safe and secure manufacturing capability to support our warhead stockpile. They form part of the critical transformation of AWE's infrastructure that will deliver the current and next generation warheads, supporting the UK to become a world-leader in new nuclear technologies.

There will be significant investment in AWE's infrastructure in Aldermaston, including the Future Materials Campus (FMC). This programme will renew existing facilities for the manufacture and storage of nuclear materials, improve science and analysis capabilities, and invest in renewed capability for material recovery.

The multi-billion-pound programme of investment requires significant engagement of the wider industrial base to address specific manufacturing, delivery and assurance capability needs. The FMC will contribute to the UK's skills development, creating jobs in the local area and across the UK supply chain. This will drive innovation in both construction and science.

Replacement warhead

Replacing the UK's warhead will ensure the UK's deterrent remains cutting-edge, safe and effective.

The UK committed to replacing our sovereign warhead in parliament in February 2021. Using modern and innovative developments in science, engineering, manufacturing and production at AWE, we will ensure the UK maintains an effective deterrent for as long as required.

The Replacement Warhead Programme has been designated the A21/Mk7 (also known as Astraea). It is being delivered in parallel with the US W93/Mk7 warhead and each nation is developing a sovereign design.

This will be the first UK warhead developed in an era where we no longer test our weapons underground, upholding our voluntary moratorium on nuclear weapon test

explosions. This is possible because of the long history of technical expertise and extensive investment in UK modelling and simulation, supercomputing, materials science, shock and laser physics at AWE.

Replacing the UK warhead is a long-term programme, driving modernisation and construction at AWE, HMNB Clyde and the hydrodynamics facility at EPURE, in France.

Testing

In line with our commitment not to conduct nuclear weapon test explosions, the UK has developed capabilities in modelling and non-nuclear testing to ensure safety and efficacy are maintained.

We have developed unique and world-leading technology to validate the UK's warhead stockpile. The Orion laser helps our physicists and scientists research the physics of those extreme temperatures and pressures found in a nuclear explosion to better understand the safety, reliability and performance of nuclear warheads. Orion is used collaboratively with UK academia and US teams in their National Laboratories.

Supercomputing is also a crucial capability, enabling simulations that allow us to develop a safe, assured warhead without detonation. AWE has recently commissioned a supercomputer named Valiant, one of the most powerful computers in the UK, to validate the design, performance and reliability of our nuclear warhead.

These facilities will be used to bring our next warhead into service, upholding our voluntary moratorium on nuclear weapons test explosions.

[...]

Part Four: Safety and security

The DNE's responsibilities span beyond the design, construction, and maintenance of our capabilities and cover the entirety of the nuclear lifecycle, encompassing our liabilities and the safe management and disposal of our assets.

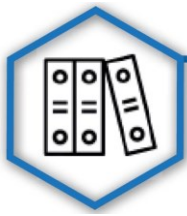
We work with industry, our arm's length bodies, and regulators to uphold the highest levels of safety and security for our people, capabilities, technology (including nuclear materials), facilities and information.

Our extensive threat reduction programmes protect the environment and maintain our international commitments to the safe management of our nuclear materials.

Our engagement with our international partners underpins our ability to guarantee nuclear security. Our responsibilities extend to joint programmes with the US, France and Australia, and our nuclear deterrence commitments with NATO sit alongside our international commitments on nuclear security and non-proliferation.

These agreements and obligations are essential to ensuring our national security while guaranteeing the security and cooperation of our allies.

[...]



FROM THE ARCHIVE

In 2014 the National Institute for Public Policy published the study, *Nuclear Force Adaptability for Deterrence and Assurance: A Prudent Alternative to Minimum Deterrence*. It was led by Drs. Johnny Foster and Keith Payne. This 2014 study was the second of a two-part analysis of U.S. deterrence policy and strategy. The first publication in this two-part analysis was the earlier, 2013 study led by former Defense Secretary James Schlesinger, and Dr. Payne entitled, *Minimum Deterrence: Examining the Evidence*. This initial 2013 study provided a careful and systematic deconstruction of the “Minimum Deterrence” narrative and its advocacy. The executive summary from the second publication of this two-part study published in 2014 is reprinted below. It addressed the question, “If not Minimum Deterrence, then what?” by examining the U.S. goals of deterrence, extended deterrence and the assurance of allies, and how to think about the corresponding U.S. standards of force adequacy in a worsening threat environment. From that starting point, this study identified general U.S. force posture qualities that would be most likely to enable Washington to deter and assure as effectively as possible, and could, therefore, help serve as useful guidelines for the U.S. nuclear force posture. Finally, this study linked specific recommendations for possible actions and policies consistent with those guidelines.

Now, a decade later, it is possible to see how well this set of guidelines holds up, and the degree to which Washington has adhered to, or departed from them.

NUCLEAR FORCE ADAPTABILITY FOR DETERRENCE AND ASSURANCE: A PRUDENT ALTERNATIVE TO MINIMUM DETERRENCE

**Keith B. Payne (Study Director), John S. Foster Jr. (Chair, Senior Review Group),
National Institute Press, 2014**

In Memoriam

On March 27, 2014, while this study was in its early stages, Dr. James R. Schlesinger passed away at the age of 85. Dr. Schlesinger served with enthusiasm and energy as the initial Chairman of the Senior Review Group for this work and the earlier 2013 publication in this series, *Minimum Deterrence: Examining the Evidence*. Dr. Schlesinger was very pleased with that earlier work and was comparably enthusiastic with the outline and direction of this follow-on study.

With Dr. Schlesinger’s passing, we have lost an incomparable leader, brilliant scholar, sincere patriot, generous mentor and friend, and beloved family man. He dedicated his professional life to protecting the security of the United States and Western Civilization, and the results of his efforts are nothing short of monumental. During his government career he served under Republican and Democratic presidents, including as Chairman of the Atomic Energy Commission, Director of Central Intelligence, Secretary of Defense, and the first Secretary of Energy. In 1973, at the age of 44 and the height of the Cold War, Dr.



Schlesinger became Secretary of Defense. He instituted important nuclear policy directions to strengthen the flexibility and credibility of U.S. forces for the purpose of deterring war and assuring U.S. allies. This study is indeed an extension of those directions and goals.

In David McCullough's biography of John Adams, America's second President, the author tells us that public service was "not a platitude" for Adams and his wife Abigail, but "a lifelong creed." The same surely can be said of Dr. Schlesinger. Recognition of Dr. Schlesinger's career of public service is well-reflected in the recent U.S. Senate Resolution in his honor, which passed with unanimous consent.

Following Dr. Schlesinger's passing, Dr. John Foster, Jr., former Director of Defense Research and Engineering, Department of Defense, and Director of the Lawrence Livermore National Laboratory, graciously agreed to step in as the Chairman of the Senior Review Group. He continued Dr. Schlesinger's earlier efforts on this study admirably, and I am enormously indebted to Dr. Foster for taking this work to completion with great expertise, enthusiasm and care. Dr. Foster and I consciously have worked to make this study one with which Dr. Schlesinger would be very pleased.

Keith B. Payne
President, National Institute for Public Policy
Professor and Department Head,
Graduate Department of Defense and Strategic Studies
Missouri State University

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*The authors are responsible for the views expressed in this report; these views do not reflect the official policy or position of the National Institute for Public Policy, the Department of Defense, or any institution with which the authors are affiliated.

**Senior Reviewers provided their comments on drafts of this report and may not be in agreement with each of its points or precise wording.

Preface

In 2013, the National Institute for Public Policy released a monograph entitled, *Minimum Deterrence: Examining the Evidence*. A bipartisan team of world-renowned civilian and military experts, led by the late Dr. James Schlesinger, contributed to this study. It identified and assessed against available evidence numerous proposals for a policy of Minimum Deterrence. The general conclusions of *Minimum Deterrence: Examining the Evidence* were that the presumptions and arguments common to Minimum Deterrence do not fare well when examined against readily available evidence.

This monograph, *Nuclear Force Adaptability for Deterrence and Assurance: A Prudent Alternative to Minimum Deterrence*, is the second in a series examining the U.S. goals of deterrence, extended deterrence and the assurance of allies, and how to think about the corresponding U.S. standards of adequacy for measuring “how much is enough?” It begins to address the question, “If not Minimum Deterrence, then what?” by examining the manifest character of the contemporary threat environment in which the United States must pursue its strategic goals of deterring foes and assuring allies. Fortunately, there is considerable available evidence regarding the character of the contemporary threat environment and its general directions. Noted historians have compared this threat environment not to the bipolar Cold War, but to the highly dynamic threat environments leading to World War I and World War II. The uncertainties involved are daunting given the great diversity of hostile and potentially hostile states and non-state actors, leaderships, goals, perceptions, and forces that could be involved.

From that starting point, this study identifies general U.S. force posture qualities that are likely to enable the United States to deter and assure as effectively as possible, and should, therefore, help serve as useful guidelines for the U.S. nuclear force posture. Finally, this study links specific recommendations for possible actions and policies consistent with those guidelines.

As with the 2013 publication, this 2014 monograph reflects the work of many hands and numerous iterations. Senior Reviewers now led by Dr. John Foster, Jr., again took their task seriously and provided literally hundreds of points to be added or deleted, corrections, and helpful suggestions with regard to precise wording. I would like to thank them and my fellow authors of initial draft sections for their careful and patient work. Similarly, I would like to express my great appreciation to the Sarah Scaife Foundation and the Smith Richardson Foundation for making this monograph series possible.

Keith B. Payne, Study Director

Executive Summary

I. Introduction

In 2013, the National Institute for Public Policy released a study entitled, *Minimum Deterrence: Examining the Evidence*. It identified and assessed against available evidence numerous proposals for a policy of Minimum Deterrence. These proposals most prominently recommend that the United States prudently can and should reduce its deployed nuclear arsenal to low or very low numbers—ranging from only a handful of deployed weapons to approximately 1,000. The general conclusions of *Minimum Deterrence: Examining the Evidence* are that the presumptions and arguments common to Minimum Deterrence do not fare well when examined against readily available evidence, and that the logic underlying Minimum Deterrence proposals often reflects significant internal contradictions.

This study begins to address the question, “If not Minimum Deterrence, then what?” by examining the manifest character of the threat environment in which the United States must pursue its strategic goals of deterring foes and assuring allies. Fortunately, there is considerable available evidence regarding the character of the current threat environment and its directions. From that starting point the study identifies general U.S. force posture qualities that are likely to enable the United States to deter and assure as effectively as possible in that threat environment, and should, therefore, serve as useful guidelines for the U.S. force posture. Finally, this study links specific recommendations for possible actions and policies consistent with those guidelines.

II. Threat Environment: A Building Block for U.S. Deterrence and Assurance Policies

There are numerous factors that should help shape the U.S. approach to deterrence and assurance. Perhaps the single most important factor is the character of the threat environment. The need for deterrence and assurance, and the character of the forces needed to support those goals must be responsive to the threat environment and trends in that environment, as well as allies’ perceptions of the environment. Thus, U.S. goals and knowledge of the actual threat environment should inform strategy, and strategy needs should drive force type, quantity and posture requirements.

The post-Cold War threat environment is highly dynamic and the attendant uncertainties that confound reliable threat forecasting loom very large. In place of the generally “ponderous and predictable” developments in the Soviet Cold War threat, the United States and allies now confront a mosaic of threats and potential threats of greatly-varying familiarity, intensity and lethality. As a 2009 Defense Science Board report

concludes, "The potential for serious surprise has reached new levels and we as a nation must be prepared to deal with it in new ways."¹

Plausible threats exist from:

- the large nuclear powers that appear increasingly to find the international status quo unacceptable;
- smaller revisionist nuclear powers, such as North Korea;
- other hostile powers seeking nuclear capability, such as Iran;
- a wide variety of hostile and WMD-seeking terrorist organizations inspired by toxic nationalist and sectarian goals; and,
- the ever-present potential for non-linear military-technical and geopolitical developments that could significantly darken the threat environment quickly.

Noted historians have compared this contemporary threat environment not to the bipolar Cold War, but to the highly dynamic threat environments leading to World War I and World War II.² This characterization is reflected in numerous National Intelligence Council (NIC) reports and testimony by senior officials in the intelligence community."³

By way of comparison, the bipolar Cold War threat environment, while severe, was *relatively* familiar and constant from year to year. Even a brief look at contemporary developments in Russia, China, North Korea and Iran helps illustrate the reality that the emerging threat environment offers considerable opportunity for serious crises and conflicts now and in the future, including the potential for nuclear crises. The uncertainties involved are daunting given the great diversity of hostile and potentially hostile states and non-state actors, leaderships, goals, perceptions, and forces that could be involved.

The Implications of a Highly Dynamic, Uncertain Threat Environment for U.S. Deterrence and Assurance

In the context of the significant uncertainties inherent in such a dynamic threat environment, U.S. deterrence and assurance strategies, and supporting nuclear forces need to be *adaptable* to a range of threat scenarios and plausible adverse military-technical developments: when potential threats are diverse, numerous, and increasingly unpredictable, U.S. deterrence requirements are likely to be correspondingly diverse and

¹ Defense Science Board, *Capability Surprise Volume I: Main Report* (Washington, D.C.: Office of the Undersecretary of Defense for Acquisition, Technology, and Logistics, September 2009), p. 1.

² See for example, Victor Davis Hanson, "China's Version of the Old Imperial Japan," *The Washington Times*, January 9, 2014, p. B-3. See also the comments by Margaret MacMillan in, Ian Johnston, "Is it 1914 All Over Again?," *The Independent*, January 5, 2014, available at <http://www.independent.co.uk-that-started-wwi-says-a-leading-historian-9039184.html>.

³ National Intelligence Council, *Global Trends 2025: A Transformed World*, (Washington D.C.: GPO, November 2008), pp. x, 3, 62, available at http://www.dni.gov/files/documents/Newsroom/Reports%20and%20Pubs/2025_Global_Trends_Final_Report.pdf. (Emphasis added).

adaptable. In practice, this means that U.S. forces must be able to deter foes and assure allies over a broad range of scenarios, including those involving military, technical and geopolitical surprise. Different approaches to deterrence, including different types of U.S. deterrent threats and supporting forces, are likely to be more (or less) credible and effective depending on the specific opponent, stakes, and other details of the contingency/crisis. U.S. forces suited only to a narrow range of threats or to niche threats could easily leave the United States without the tools necessary for defense or deterrence in a highly dynamic threat environment.

Because U.S. nuclear forces tend to have operational life spans measured in decades, the U.S. nuclear force posture must be sufficiently adaptable to deter and assure as effectively as possible in a threat environment that will see many new developments, including surprising developments, over the course of decades. If so, the United States is less likely to be caught in crises with narrowly-functioning forces ill-suited for the threats that it must confront and deter.

The United States thus must seek, as a fundamental guideline, to give its nuclear force posture the level of adaptability practicable within legal, political and economic boundaries likely to endure. This was recognized during the Cold War, but the much greater diversity of threats and dynamic character of the post-Cold War security environment now heightens considerably the need to do so.⁴ These are the fundamental building blocks, derived from available evidence, for any prudent recommendations regarding U.S. force requirements and measures of adequacy.

The implications of establishing *adaptability* as a priority guideline for the size and composition of the U.S. nuclear arsenal are indirect, but unavoidable. The capacity of the United States to adapt its deterrence and assurance strategies to widely-differing circumstances will be affected by the size and character of U.S. forces. Greater numbers do not automatically equate to greater adaptability, but retaining adaptability at ever lower force levels becomes increasingly difficult and eventually is implausible at very low force levels. Force posture numbers and characteristics should follow from that basic consideration, and U.S. arms control goals should be shaped significantly by the same consideration.

III. Requirements for a Flexible and Resilient Nuclear Force

The political and military uncertainties of the contemporary security environment point to the priority need for a U.S. nuclear force that can adapt to a range of plausible opponents, threats, conflicts, and technical challenges. The required adaptability is of two kinds: flexibility and resilience. Flexibility involves: 1) deliberate and adaptive planning for a variety of options to deter or counter attacks that present a grave danger to U.S. or allied

⁴ As is well-recognized in, Department of Defense, *Deterrence Operations Joint Operating Concept*, Version 2.0 (December 2006), pp. 7-8, available at http://www.dtic.mil/futurejointwarfare/concepts/do_joc_v20.doc.

security (nuclear strikes, extensive chemical or biological use, or overwhelming conventional offensives); and 2) forces with the diverse capabilities and the associated nuclear command and control necessary to support those deterrent threat options.

To provide flexibility, the U.S. nuclear force as a whole—Intercontinental Ballistic Missiles (ICBMs), Submarine-Launched Ballistic Missiles (SLBMs), heavy bombers, and shorter-range dual-capable aircraft (DCA)—require certain basic attributes. These include:

- **Survivability** – allows forces to withstand or escape attack on their bases and to evade or overcome enemy defenses. (Survivability can contribute both to flexibility and to resilience, but is discussed here primarily in terms of flexibility).
- **Intercontinental range** – prevents targets in enemy territory that are potentially critical for deterrence from enjoying sanctuary by virtue of being out of reach.
- **Ability to forward deploy** – allows U.S. nuclear-capable forces to deploy to locations in or near allied countries as a forward presence that can be important to both assurance and deterrence.
- **Prompt response capability** – permits the United States to hold a variety of targets at risk with a flight time of an hour or less which, in some situations, can be important for deterrence and assurance.
- **Variable payload** – provides the ability of bombers and ballistic missiles to carry different types and numbers of weapons, making possible a better matching of U.S. deterrent threats to supporting U.S. capabilities.
- **Assorted weapon yields** – allows the United States to hold at risk a wide range of target types for the purposes of deterring conflict or limiting its escalation in a variety of contingencies.
- **High delivery accuracy** – provides a critical determination of whether a weapon can hold a target at risk, as well as the yield needed to do so.
- **Nuclear command and control** – provides a robust, secure, survivable system for early warning, attack assessment, senior-leader conferencing, and force direction.

The other force quality necessary for adaptability in an uncertain world is resilience. Resilience in general is the ability to withstand, recover from, or adjust to adverse change in order to mitigate risk and maintain effectiveness.

The following are sources of resilience for the US nuclear force:

- **Strength in the extant force posture** – assures that the different elements that comprise the force structure—Ballistic Missile Submarines (SSBNs), ICBMs, bombers, and DCA—are not all vulnerable to a single type of attack. Also, peacetime alert of SSBNs and ICBMs contributes to resilience by providing insurance against a surprise attack. In addition, stockpile diversity hedges against problems with the safety, security, or effectiveness of a warhead or bomb type.

- **Adaptation within existing capabilities** – assures that the current nuclear force could be adapted to adverse military-technical or geopolitical changes through a number of measures that would not involve acquisition of new capabilities or the upgrade of existing delivery vehicles and weapons. The alert level of elements within the force structure could be raised to counter a new threat to prelaunch survivability, increase force preparedness, or help deter escalation of a crisis. Non-deployed weapons in the nuclear stockpile could also be uploaded on bombers and ballistic missiles in response to an increase in the offensive or defensive strength of an opponent, a stepped-up arms competition, or a confrontation that threatened to escalate to nuclear use.
- **Modification with hardware changes** – includes the option of adding better guidance systems for missiles (e.g., if targets become more hardened), upgraded defensive avionics for strike aircraft (e.g., if air defenses improved), and new or upgraded weapons to bombers or missiles (e.g., if targeting constraints made lower-yield weapons necessary).
- **Modernization of force elements** – allows for the new development and production for changes in quantity as well as quality in response to evolving threats.

IV. Preserving and Enhancing Adaptability

This report identifies actions the United States can consider to preserve and enhance adaptability for strategic forces. This discussion is by no means meant to be comprehensive. Rather, it offers an initial look at some possible U.S. actions consistent with establishing flexibility and resilience as priority guidelines for deterrence and assurance purposes. This list of possible actions can help defense planners with efforts already underway for nuclear force modernization, design concepts for next-generation replacement systems, and identification of goals for future arms control negotiations.

Next-generation nuclear forces are programmed to be in service until late in the twenty-first century. For example, *Ohio*-class replacement SSBNs are scheduled to be deployed until the 2080s. The natural question to consider is: “How much flexibility and resilience are enough to provide adaptability for deterrence and assurance in the decades ahead?” No definitive or static answer to that question is possible because requirements will shift with the threat environment, the extent to which allies feel assured, and the character of the opponents and contingencies in question. Nevertheless, in a highly dynamic environment, a priority goal for the United States should be to provide as much flexibility and resilience as possible, within likely practical constraints.

To enhance the adaptability of nuclear forces, this report identifies potential actions for consideration and some pertinent “to dos” and “not to dos” in support of U.S. flexibility and resilience. It is impossible to know whether a failure to follow these would lead to the

future failure of deterrence or assurance. But, without such actions the United States would likely be less able to adapt as may be necessary to shifting threat environments for the purpose of supporting the most effective deterrence and assurance strategies practicable.

Actions discussed in the report that can preserve and enhance *flexibility* include the following:

- **Survivability** – the nuclear triad should be retained to present great complexity and uncertainty to any adversary that might contemplate a disarming nuclear strike on the United States. The ability to disperse bombers and increase the alert rates of bombers and SSBNs in response to adverse technical or geopolitical changes preserves flexibility by maintaining the prelaunch survivability of the strategic nuclear force.
- **Diverse payloads and weapon yields** – currently, all U.S. nuclear weapons that provide low-yield options reside with the air-breathing weapon delivery systems. Flexibility would be enhanced by developing and certifying low-yield options for the ballistic missile legs of the triad—ICBMs and SLBMs. Also, modernization plans should include replacing or upgrading the B61-11 earth penetrating weapon.
- **Ability to forward deploy** – the United States should move ahead with nuclear certification plans for the F-35A and the B61-12 life extension program and ensure that the support infrastructure is in place for deploying DCA to threatened regions. One way to improve this flexibility-related attribute is for DoD to identify and prepare emergency nuclear weapon storage sites in appropriate regions, in addition to current European deployment sites.
- **Intercontinental range and delivery accuracy** – as forces are life extended and modernized, opportunities to improve accuracy further should continue to be a goal, whenever feasible. In particular, accuracy improvements should be included in planning for the follow-on ICBM and Long Range Stand-Off missile. Also, guidance and accuracy improvements for nuclear gravity bombs, the only “unguided” weapons in the U.S. nuclear arsenal, should be a goal.
- **Declaratory policy** – a “sole purpose” declaratory doctrine for nuclear forces or other formulations of a no-first-use policy should be avoided unless and until much more benign threat conditions exist.
- **Non-nuclear strategic capabilities** – conventional global strike offensive capabilities and ballistic missile defenses, when combined with nuclear capabilities, can provide more flexible options for the president during a crisis. Non-nuclear strategic capabilities—both offensive and defensive—should continue to be developed and, when ready, deployed.

Actions that can preserve and enhance *resilience* include the following:

- **Force structure composition and sizing** – over the near- to mid-term, an upload hedge capability and a non-deployed stockpile of warheads will be needed for the nuclear force to provide important options for resilience. Therefore, for at least the next decade—until the nuclear weapons complex is modernized and fully operational—arms control negotiations should include the goals of protecting the U.S. nuclear force structure and preserving a hedge capacity.
- **Next-generation weapon systems** – planning for nuclear force modernization should include the need for adaptability when developing replacements for existing nuclear weapons systems. Studies for nuclear force modernization, including the *Ohio*-class replacement SSBN, follow-on ICBM, Long Range Strike-Bomber, and Long Range Stand-Off missile, should consider an extra margin of weight and volume for potential future payload needs.
- **Nuclear command and control** – potential adversaries are actively developing cyber and counter-space capabilities to disrupt and deny U.S. command-and-control capabilities. The U.S. nuclear command-and-control system should be modernized to protect against obsolescence and emerging vulnerabilities. More detailed actions are outlined in the body of the report.
- **Nuclear weapon developments** – innovation at the national laboratories in nuclear weapon design, production and employment should be encouraged, not discouraged. The national laboratories should explore the potential for new development to sharpen technical skills, understand what adversaries might be developing, and be responsive to rapidly emerging needs. Low-cost studies and prototyping can provide benefits important for resilience.
- **Defense industrial base** – modernization of the nuclear weapons infrastructure—especially that supporting uranium and plutonium operations in the manufacture of nuclear warheads—should proceed without delay. In addition, development and production of non-nuclear strategic capabilities, discussed earlier for flexibility, can also enhance the responsiveness of the industrial base by sustaining activity in the industrial base for weapon guidance systems and solid rocket motors.
- **Arms control policies** – in addition to protecting force structure, hedge capacity, and a non-deployed stockpile, all future arms control initiatives should be examined carefully by a “red team” for potential unintended consequences that would degrade U.S. flexibility and resilience.

A more complete list of potential actions to preserve and enhance adaptability—flexibility and resilience—are summarized in Table ES-1 and discussed in greater detail in the body of the report.

Table ES-1: Actions that Could Protect and Enhance Flexibility and Resilience

Category	Action
Force Structure	
	Maintain the triad; preserve force structure
	Retain upload hedge capability, e.g., empty ICBM silos, ability to re-MIRV ICBMs
	Retain DCA (nuclear-capable F-35; B61-12)
	Designate and prepare contingency nuclear storage sites and bomber dispersal bases
Force Modernization	
	Modernize all triad legs
	Emphasize adaptability in modernization plans
	Base future force composition and size on policy goals for deterrence and assurance, recognizing the need for adaptability
	Upgrade accuracy of weapons
	NC2: Upgrade senior leader conferencing, early warning systems, and robustness of secure communications to strategic forces
	Develop prompt conventional global strike capabilities
Force Posture	
	Reject de-alerting proposals
	Maintain upload potential
	Develop ability to more quickly increase readiness of deployed DCA
	Use exercises/war games to evaluate options for adaptability
Warhead Stockpile	
	Retain non-deployed stockpile for hedge/upload
	Life extend or modernize B61-11 EPW
	Develop low-yield options for SLBMs and ICBMs
	Demonstrate competence for “new” nuclear capabilities
Infrastructure	
	Modernize nuclear warhead infrastructure
	Encourage innovation, studies, prototyping
	Develop non-nuclear capabilities
Declaratory Policy	
	Avoid “sole purpose” and “no first-use” policies, given their likely detrimental effect on flexibility and deterrence
Arms Control	
	In light of deterrence and assurance requirements, assess prospective arms control steps carefully, according to the priority goal of preserving or strengthening adaptability; identify and consider warily arms control steps and goals that would force tradeoffs degrading adaptability.