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Still a useful myth? NATO's theater nuclear weapons as tools of alliance management

Linde Desmaele 

ABSTRACT

What is the role of the US theater nuclear weapons (TNW) currently stationed in Europe? Open-source intelligence experts estimate that five European NATO member states host approximately 100 US nuclear bombs under a series of nuclear-sharing arrangements. The presence of these deployments has garnered renewed attention since Russia's annexation of Crimea in 2014 and full-scale invasion of Ukraine in 2022. While advocates and opponents of NATO's TNW mission focus primarily on the value of these weapons in terms of deterrence or reassurance, this article takes a different perspective. It argues that US TNW stationed in Europe are primarily tools of alliance management and introduces three distinct mechanisms through which they serve this purpose: nuclear deflection, nuclear legitimation, and nuclear consultation. By focusing on these functions, this article draws attention to the main barriers that produce continuity and complicate changes in NATO's nuclear posture. The article also advances understanding of the drivers of nuclear posture by emphasizing alliance management as a factor that has received insufficient scholarly attention.

KEYWORDS

nuclear sharing; NATO; alliance politics; Treaty on the Prohibition of Nuclear Weapons (TPNW)

Introduction

Russia's annexation of Crimea in 2014 and subsequent nuclear saber rattling have put nuclear weapons back at the forefront of politics within NATO. Scholars and policy makers often pay particular attention to "tactical" weapons—generally understood to be those that lack intercontinental range—because many escalation scenarios foresee the use of these weapons as a precursor to a general nuclear war. Russia has notably modernized its arsenal of tactical nuclear arms, raising concerns among various NATO allies.¹ Meanwhile, experts in open-source intelligence estimate that

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¹ See, for example, Stéfanie von Hlatky and Emile Lambert-Deslandes, "The Ukraine War and Nuclear Sharing in NATO," *International Affairs*, Vol. 100, No. 2 (2024), pp. 509–30, <<https://doi.org/10.1093/ia/iiae001>>; Research Services Deutscher Bundestag, "On the Legal Relationship between the Treaty on the Prohibition of Nuclear Weapons and the Non-Proliferation Treaty," *Study*, WD 2–3000–111/20, trans. Language Service of the German Bundestag, January 19, 2021, <https://d3n8a8pro7vhmx.cloudfront.net/ican/pages/234/attachments/original/1617024241/Bundestag_TPNW_NPT.pdf?1617024241>; Lode Dewaegheneire, Veronica Vella, and Sylvain Paile-Calvo, "Internationale Nucleaire Ontwapening en Beleidsopties voor België en Vlaanderen" [International nuclear disarmament and policy options for

approximately 100 US B61 nuclear gravity bombs are currently deployed on the territory of five NATO allies: Belgium, Germany, Italy, the Netherlands, and Turkey.² These foreign nuclear deployments are part of NATO's nuclear-sharing arrangements, described by Hans Kristensen, Matt Korda, Eliana Johns, and Mackenzie Knight as "the practice of allowing non-nuclear states to operate specifically configured launchers to employ a nuclear-armed state's nuclear weapons in time of war."³ As tensions between Russia and NATO continue to rise, these US theater nuclear weapons (TNW), stationed and intended for use in Europe, have come under renewed scrutiny.

Research on the drivers of foreign nuclear deployments suggests that they can serve as tools of military power projection, extended deterrence, and reassurance of allies.⁴ Yet, in the case of NATO, there is a growing consensus among proponents and critics of the alliance's stated reliance on US foreign nuclear deployments that the current posture is less than militarily optimal. Some analysts even deem these weapons obsolete.⁵ Despite such widespread acknowledgment of operational limitations and heightened concerns about Russian aggression and military modernization, NATO's TNW posture has remained largely unchanged since the end of the Cold War.⁶ Scaling these nuclear deployments up or down requires an agreement between individual host states and the United States, but it also carries important implications for the entire transatlantic alliance. As it stands, there is a lack of political will to pursue the enhancements often considered necessary to align doctrine with actual capabilities.⁷ Lukewarm or even negative responses to repeated Polish proposals that Poland start

Belgium and Flanders], *Rapport*, Vlaams Vredesinstituut, December 16, 2021, <<https://vlaamsvredesinstituut.eu/wp-content/uploads/2021/12/20211221-NucleaireOntwapening-Web.pdf>>; Advisory Council on International Affairs, "Kernwapens in een Nieuwe Geopolitieke Werkelijkheid: Hoog Tijd voor Nieuwe Wapenbeheersingsinitiatieven" [Nuclear weapons in a new geopolitical reality: high time for new arms control initiatives], *Advies*, No. 109, Advisory Council on International Affairs, January 29, 2019, <<https://www.adviesraadinternationalelvraagstukken.nl/documenten/publicaties/2019/01/29/kernwapens-in-een-nieuwe-geopolitieke-werkelijkheid>>.

² This article uses the terms "tactical," "battlefield," and "theater" (nuclear weapon) interchangeably. For estimates on US nuclear arms stationed in Europe see Hans Kristensen, Matt Korda, Eliana Johns, and Mackenzie Knight, "Nuclear Weapons Sharing, 2023," *Bulletin of the Atomic Scientists*, Vol. 79, No. 6 (2023), pp. 393–406, <<https://doi.org/10.1080/00963402.2023.2266944>>.

³ Kristensen, et al., "Nuclear Weapons Sharing, 2023."

⁴ Matthew Fuhrmann and Todd Sechser, "Nuclear Strategy, Nonproliferation, and the Causes of Foreign Nuclear Deployments," *Journal of Conflict Resolution*, Vol. 58, No. 3 (2014), pp. 455–80, <<https://doi.org/10.1177/0022002713509055>>; Julian Schofield, *Strategic Nuclear Sharing* (Basingstoke, UK: Palgrave Macmillan, 2014). The term "foreign nuclear deployment" refers to the stationing of nuclear weapons by any nuclear-armed state on the territory of another country. This article focuses specifically on the case of the United States.

⁵ Tom Sauer and Bob van der Zwaan, "US Tactical Nuclear Weapons in Europe after NATO's Lisbon Summit: Why Their Withdrawal Is Desirable and Feasible," *International Relations*, Vol. 26, No. 1 (2012), pp. 78–100, <<https://doi.org/10.1177/0047117811430675>>; Robert Bell, "NATO Nuclear Burden-Sharing Post-Crimea: What Constitutes Free-Riding?" PhD diss., Tufts University, 2021, <<https://www.proquest.com/openview/83323aa5ada39eb2f98f62be0fa25585/1?pq-origsite=gscholar&cbl=18750&diss=y>>.

⁶ Von Hlatky and Lambert-Deslandes, "The Ukraine War and Nuclear Sharing."

⁷ Jakub Graca and Justyna Gotkowska, "NATO's Nuclear Deterrence: Is It Time for Change?" Center for Eastern Studies, June 19, 2024, <<https://www.osw.waw.pl/en/publikacje/osw-commentary/2024-06-19/natos-nuclear-deterrence-it-time-change>>; Bell, "NATO Nuclear Burden-Sharing"; Robert Bell, "Modernise, Expand or Complement? NATO's Nuclear Posture in the Post-2022 Strategic Environment," CSDS In-Depth Paper No. 2024/11, Centre for Security, Diplomacy and Strategy, March 2024, <<https://csds.vub.be/publication/modernise-expand-or-complement-natos-nuclear-posture-in-the-post-2022-strategic-environment>>. While some analysts have argued that the ongoing Ukraine war has strengthened public support for the nuclear-sharing status quo, the focus here is on the lack of political will to elevate the status quo by increasing NATO's technical or doctrinal reliance on TNW. For evidence of increased public support for nuclear weapons in Europe in Germany and the Netherlands, see Michal Onderco, Michal Smetana, and Tom Etienne, "Hawks in the Making? European Public Views on Nuclear Weapons Post-Ukraine," *Global Policy*, Vol. 14, No. 2 (2023), pp. 305–17, <<https://doi.org/10.1111/1758-5899.13179>>.

hosting US nuclear weapons on its soil are a case in point.⁸ Meanwhile, critics of the current deployments face political pushback when they call for the withdrawal of these arms.⁹

Tellingly, a 2024 US Department of State report about tactical nuclear weapons in the European context concludes that “the United States has not seen any reason to adjust its own nuclear posture because of events to date.”¹⁰ But if the prevailing view among many allies and experts is that NATO’s TNW mission is militarily suboptimal, why are the allies so reluctant either to elevate the mission’s prominence within the alliance and invest additional resources in nuclear sharing or simply to get rid of it altogether?

Academic literature has not provided a satisfactory response to this question. While scholars have assessed the merits and drawbacks of NATO’s TNW posture, little work examines what makes the status quo so durable and resistant to change. The possibility that some allies truly believe that the TNW mission, in its current state, has some deterrence and reassurance value cannot be wholly dismissed.¹¹ Yet, the importance of such functions seems to have been overstated.

By contrast, this article argues that US nuclear deployments in Europe serve to lock in a status quo that provides three distinct contributions to alliance management. First, the presence of US TNW facilitates *nuclear deflection*. This is the practice of shifting the focus away from questions relating to the responsibilities, costs, and obligations of the conventional-weapons aspect of collective defense.¹² Second, they provide a means of *nuclear legitimation*, reinforcing the alliance’s commitment to nuclear deterrence as the basis for NATO’s overall defense strategy.¹³ Finally, they compel *nuclear consultation*, which ensures ongoing transatlantic political linkage due to the continued US presence in Europe.¹⁴ While aspects of these mechanisms have been described elsewhere, they have not been applied specifically in the context of NATO’s nuclear posture in such a structured way.

To substantiate the argument, this article relies on a review of the historical record on NATO’s TNW mission to leverage lessons from the Cold War era. It combines that review with an analysis of contemporary parliamentary records and other official member-country documents, NATO sources, and secondary-source literature. Additionally, the article incorporates insights from interviews with senior national and

⁸ Von Hlatky and Lambert-Deslandes, “The Ukraine War and Nuclear Sharing”; Monika Sus and Lukasz Kulesa, “Breaking the Silence: Explaining the Dynamics Behind Poland’s Desire to Join NATO Nuclear Sharing in Light of Russian Aggression against Ukraine,” *Nonproliferation Review*, Vol. 30, Nos. 4–6 (2024), pp. 241–63, <<https://doi.org/10.1080/10736700.2024.2432807>>.

⁹ Michèle Flournoy and Jim Townsend, “Biden Advisers on Nuclear Sharing: Striking at the Heart of the Transatlantic Bargain,” *Spiegel International*, June 3, 2020, <<https://www.spiegel.de/international/world/biden-advisers-on-nuclear-sharing-striking-at-the-heart-of-the-trans-atlantic-bargain-a-e6d96a48-68ef-49ab-8a0c-8a979abf2bb4>>.

¹⁰ US Department of State, “Report to the Senate on the Status of Tactical (Nonstrategic) Nuclear Weapons Negotiations Pursuant to Subparagraph (a)(12)(B) of the Senate Resolution of Advice and Consent to Ratification of the New START Treaty,” April 16, 2024, <<https://www.state.gov/report-on-the-status-of-tactical-nonstrategic-nuclear-weapons-negotiations>>.

¹¹ In this context, “reassurance” refers to the allies’ confidence in the US willingness to use nuclear weapons on their behalf.

¹² Fenella McGerty, Dominika Kunertova, Madison Sargent, and Andrew Webster, “NATO Burden-Sharing: Past, Present, Future,” *Defence Studies*, Vol. 22, No. 3 (2022), pp. 533–40, <<https://doi.org/10.1080/14702436.2022.2082953>>.

¹³ Kjølsv Egeland, “Spreading the Burden: How NATO Became a ‘Nuclear’ Alliance,” *Diplomacy and Statecraft*, Vol. 31, No. 1 (2020), pp. 143–67, <<https://doi.org/10.1080/09592296.2020.1721086>>.

¹⁴ Liviu Horowitz, “Why Do They Want American Nukes? Central and Eastern European Positions Regarding US Nonstrategic Nuclear Weapons,” *European Security*, Vol. 23, No. 1 (2014), pp. 73–89, <<https://doi.org/10.1080/09662839.2013.846326>>.

alliance officials involved in NATO's nuclear mission and the oral histories of policy makers and other foreign-policy experts. The resulting analysis suggests that the combination of the three alliance-management functions has been a key incentive for NATO allies to remain dedicated to the nuclear status quo although many member-country governments harbor serious doubts about the strategic and operational benefits of the TNW mission in its current state. The alliance-management argument thereby makes three central contributions to scholarly and policy debates on the future of NATO's TNW mission.

First, it underscores the need for both advocates and critics of the mission to move beyond questions of deterrence and reassurance, which primarily adhere to a military logic. Indeed, an important implication of the alliance-management argument is that, if opponents of the TNW mission actually want these weapons to be withdrawn, it will not suffice to declare that their value for deterrence and reassurance is dubious. Instead, opponents ought to consider the costs, risks, and benefits that may result for different allies in light of these weapons' alliance-management functions. A crucial question, for instance, is what the withdrawal of these weapons would mean for the intra-alliance pecking order within NATO. Equally important are the budgetary or societal costs that would arise if TNW host nations opted to eliminate the mission and instead increase the readiness of their conventional forces.

Those opposed to the TNW mission should also consider the connection between nuclear legitimation and the US deployments. Specifically, contestation over foreign nuclear deployments could impact their broader preferences regarding the alliance's reliance on nuclear weapons for deterrence and defense. For better or for worse, the TNW mission helps lock in the alliance's reliance on nuclear deterrence as the basis for its overall strategy through the sharing of political responsibility with the host states. The withdrawal of US TNW from Europe may therefore remove important constraints on those domestic factions within NATO countries that have long sought to challenge the legitimacy of nuclear deterrence. Opponents should also consider whether alternative arrangements can be found to maintain the transatlantic political linkage for those allies most dedicated to it.

Second, the alliance-management argument also implies that those who advocate stronger deterrence and reassurance measures in NATO's TNW policy face an uphill battle. In particular, individual allies may have incentives to contest changes in the alliance's nuclear posture to protect their own alliance-management-related goals or benefits. To redress existing operational limits, proponents of the TNW mission continue to call upon NATO to upgrade its nuclear-exercise practices, actively demonstrate its nuclear capabilities, and open the door to the participation of more allies in the current nuclear-sharing arrangements.¹⁵ Yet, if the main concern of supporters of the TNW mission is to strengthen deterrence and defense against a Russian attack, they may be more likely to gain a receptive

¹⁵ Jacek Durkalec and Matthew Kroenig, "NATO's Nuclear Deterrence: Closing Credibility Gaps," *Polish Quarterly of International Affairs*, Vol. 25, No. 1 (2016), pp. 37–50; Brad Roberts, *The Case for U.S. Nuclear Weapons in the 21st Century* (Redwood City, CA: Stanford University Press, 2016); Andrea Gilli, "Recalibrating NATO Nuclear Policy," NDC Research Paper No. 10, NATO Defense College, June 2020, <<https://www.ndc.nato.int/news/news.php?icode=1446>>; Bell, "Modernise, Expand or Complement?"

audience if they shift their focus. Emphasizing other capabilities could be more effective.¹⁶

Third, the concept of alliance management introduced in this article contributes to the literature on the sources of nuclear-posture decisions. A growing body of scholarship has examined how states operationalize their nuclear arsenals and how they decide on the specific weapons systems and supporting infrastructure they maintain.¹⁷ Foreign nuclear deployments are an important part of this story. Analysts have so far prioritized questions relating to the initial decision to station nuclear weapons on allied territory from the viewpoint of the deployer, focusing on issues of deterrence and reassurance.¹⁸ This article introduces the perspective of other allies, and host states in particular, into the conversation. It moves beyond pure military logic by looking at why nuclear weapons *remain* deployed on allied territory despite persistent doubts about their strategic and operational benefits. Importantly, arguments based on strict military logic and alliance management do not have to be mutually exclusive.

The article therefore proceeds as follows: The first section elaborates on the limitations of existing scholarship—focused on deterrence and reassurance—in explaining why NATO allies remain committed to the TNW mission in its current form. The second section develops the argument that US TNW stationed in Europe are primarily tools of alliance management and lays out relevant mechanisms for these functions. The conclusion explores the implications of this argument for the literature on the sources of nuclear-posture decisions and, more specifically, on NATO's nuclear status quo.

The durability of NATO's theater-nuclear-weapons posture

US TNW in Europe have received renewed attention in recent years because of Russia's 2014 annexation of Crimea, the Kremlin's repeated nuclear saber rattling in its war against Ukraine, and the potential deployment of Russian TNW in Belarus. NATO's 2022 Strategic Concept also emphasizes the alliance's reliance on TNW for nuclear deterrence.¹⁹ However, the presence of US nuclear weapons on the territory of NATO allies continues to be contentious within the alliance.²⁰

Proponents of the TNW mission argue that these weapons are important for deterrence and reassurance, although they often concede that serious operational deficiencies persist. Many advocates have urged NATO to adopt several policies to

¹⁶ For a similar argument, see Doreen Horschig and Sean Monaghan, "Europe Needs More Conventional Forces, Not Its Own Nukes," Center for Strategic and International Studies, June 21, 2024, <<https://www.csis.org/analysis/europe-needs-more-conventional-forces-not-its-own-nukes>>.

¹⁷ Erik Gartzke, Jeffrey Kaplow, and Rupal Metha, "The Determinants of Nuclear Force Structure," *Journal of Conflict Resolution* Vol. 58, No. 3 (2014), pp. 481–508, <<https://doi.org/10.1177/0022002713509054>>; Vipin Narang, "Posturing for Peace: Pakistan's Nuclear Postures and South Asian Stability," *International Security*, Vol. 57, No. 3 (2010), pp. 38–78, <<https://doi.org/10.1162/isec.2010.34.3.38>>; Vipin Narang, *Nuclear Strategy in the Modern Era: Regional Powers and International Conflict* (Princeton, NJ: Princeton University Press, 2014).

¹⁸ Fuhrmann and Sechser, "Nuclear Strategy, Nonproliferation, and the Causes of Foreign Nuclear Deployments."

¹⁹ NATO, "2022 Strategic Concept," June 29, 2022, p. 6, <https://www.nato.int/nato_static_fl2014/assets/pdf/2022/6/pdf/290622-strategic-concept.pdf>.

²⁰ Catherine Kelleher, "The Present as Prologue: Europe and Theater Nuclear Modernization," *International Security*, Vol. 5, No. 4 (1981), pp. 150–68, <<https://doi.org/10.2307/2538717>>; Jane E. Stromseth, *The Origins of Flexible Response: NATO's Debate over Strategy in the 1960s* (London: Palgrave Macmillan, 1988); Stéphanie von Hlatky, "Transatlantic Cooperation, Alliance Politics and Extended Deterrence: European Perceptions on Nuclear Weapons," *European Security*, Vol. 23, No. 1 (2014), pp. 1–14, <<https://doi.org/10.1080/09662839.2013.856304>>.

overcome these weaknesses and better align the alliance's capabilities with the TNW mission's stated objectives.²¹ Nevertheless, even if one accepts the basic military logic underlying NATO's official strategy, it remains puzzling that the allies seem unenthusiastic about taking the necessary steps to implement it, despite what the strategy would logically demand.

Conversely, opponents of these deployments have long raised questions about the overall credibility of NATO's TNW mission, both operationally and politically. Critics contend that these weapons are militarily redundant and emphasize challenges to their survivability.²² Additionally, skeptics question the very possibility of limited, or theater, nuclear war and assert that NATO's political decision making lacks credibility when it comes to TNW.²³ Despite opponents' repeated calls, over decades, to withdraw these weapons, allied leaders have consistently defended the status quo. If both proponents and skeptics acknowledge that the TNW mission in its current form is, at best, militarily suboptimal, this raises the question of why the status quo continues to endure.

At its core, NATO's nuclear posture continues to reflect the decades-old assumption that the tactical use of nuclear weapons can compensate for deficiencies in allied conventional military capabilities. NATO's current TNW mission reflects a political compromise between the United States and its European allies dating back to the mid-1960s. At that time, the US preference was for a strong conventional defense capable of withstanding major Soviet aggression in Europe without resorting to nuclear weapons. In contrast, the European allies preferred a more limited conventional capability that maintained a clear connection between the US strategic arsenal and the defense of Western Europe.²⁴ Throughout the Cold War, NATO military planners were primarily concerned with the threat posed by the potential of an invasion by the conventionally superior Soviet Union. Since a combination of political and economic reasons prevented NATO allies from matching the Soviet Union's conventional strength, the alliance relied on the threat of nuclear retaliation.²⁵ Starting with its first deployments in 1954, the United States deployed nuclear weapons in Europe with the stated purpose of reinforcing the US strategic deterrent and enabling Washington to strike important Soviet targets. Foreign nuclear deployments were deemed necessary because the United States lacked intercontinental ballistic missiles (ICBMs) and its bombers lacked the range to reach the Soviet Union.²⁶

By the mid-1950s, several developments were prompting a reassessment of the role of TNW in NATO strategy. On the one hand, from the US viewpoint, the introduction and

²¹ Durkalec and Kroenig, "NATO's Nuclear Deterrence."

²² Tytti Erästö, "More Investment in Nuclear Deterrence Will Not Make Europe Safer," Stockholm International Peace Research Institute, December 5, 2023, <<https://www.sipri.org/commentary/essay/2023/more-investment-nuclear-deterrence-will-not-make-europe-safer>>.

²³ Robert Jervis, "Why Nuclear Superiority Doesn't Matter," *Political Science Quarterly*, Vol. 91, No. 4 (1979), pp. 617–33, <<https://doi.org/10.2307/2149629>>; Horowitz, "Why Do They Want American Nukes?"

²⁴ Stromseth, *The Origins of Flexible Response*, p. 1; Michael Legge, "Theater Nuclear Weapons and the NATO Strategy of Flexible Response," Report No. R2964-FF, RAND Corporation, April 1983, pp. 7–10, <<https://www.rand.org/pubs/reports/R2964.html>>.

²⁵ Legge, "Theater Nuclear Weapons," p. 5; Helmut Schmidt, *The Balance of Power* (London: William Kimber, 1971), p. 197.

²⁶ Fuhrmann and Sechser, "Nuclear Strategy, Nonproliferation, and the Causes of Foreign Nuclear Deployments"; NATO, "Final Communiqué," December 16, 1953, <<https://www.nato.int/docu/comm/49-95/c531216a.htm>>; Egeland, "Spreading the Burden."

subsequent improvement of long-range delivery systems reduced the operational need for TNW. On the other hand, the credibility of US massive nuclear retaliation diminished as the Soviet Union developed its own advanced nuclear capabilities, including ICBMs capable of striking the continental United States.²⁷ After extensive debate, NATO incorporated the concept of graduated, controlled nuclear escalation into its strategic framework in December 1967, adopting the doctrine known as “flexible response.” This new doctrine prescribed a graduated nuclear response to a Soviet conventional invasion of Europe: NATO would first opt for a conventional response, followed by a limited nuclear response by means of US TNW, reserving strategic retaliation as a final option.²⁸ Under flexible response, US TNW evolved from addressing operational limitations in US strategic deterrence to fulfilling two new roles: facilitating limited nuclear escalation and reassuring allies.²⁹ For the United States, the threat of limited nuclear escalation with TNW was viewed as the best way to prevent a European regional conflict from escalating into a strategic nuclear exchange between the superpowers. For the European allies, the threat of limited nuclear war was viewed as the best way to “couple” European security to the US strategic deterrent.³⁰ Despite the formal adoption of flexible response as the alliance’s concept for deterrence and defense, however, its operational implications—including the respective roles for conventional forces, theater nuclear forces, and strategic nuclear forces—have remained subjects of intra-alliance debate and disagreement.³¹

Over the past several decades, scholars have fiercely debated the logic of flexible response and the role of US TNW in NATO strategy. Advocates assert that the logic of flexible response is valid and US TNW in Europe continue to provide the alliance with a valuable military deterrent. They argue that without these weapons “the bargain sustaining US extended deterrence would collapse and the US nuclear umbrella would essentially be decoupled from Europe.”³² US TNW are thus seen as important for

²⁷ Legge, “Theater Nuclear Weapons,” p. 6; Matthew Jones, *After Hiroshima: The United States, Race and Nuclear Weapons in Asia, 1945–1965* (Cambridge, UK: Cambridge University Press, 2010), pp. 362–400. Some scholars have argued that such concerns were unnecessary. See Robert Jervis, *The Meaning of the Nuclear Revolution: Statecraft and the Prospect of Armageddon* (Ithaca, NY: Cornell University Press, 1989).

²⁸ Charles N. Davidson, “Tactical Nuclear Defense—the West German View,” *Parameters*, Vol. 4, No. 1 (1974), pp. 47–57, <<https://doi.org/10.55540/0031-1723.1063>>; see also Legge, “Theater Nuclear Weapons”; Roger L.L. Facer, “Conventional Forces and the NATO Strategy of Flexible Response,” Report No. R-3209-FF, RAND Corporation, January 1985, <<https://www.rand.org/pubs/reports/R3209.html>>.

²⁹ Thomas Schelling speaks of “hand tying” to strengthen the credibility of deterrent threats. See Thomas Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 2020); Matthew Furhmann and Todd Sechser, “Signaling Alliance Commitments: Hand-Tying and Sunk Costs in Extended Nuclear Deterrence,” *American Journal of Political Science*, Vol. 58, No. 4 (2014), pp. 919–35, <<https://doi.org/10.1111/ajps.12082>>; Legge, “Theater Nuclear Weapons”; Marc Trachtenberg, *A Constructed Peace: The Making of the European Settlement, 1945–1963* (Princeton, NJ: Princeton University Press, 1999).

³⁰ Legge, “Theater Nuclear Weapons,” p. 10; Davidson, “Tactical Nuclear Defense”; Susan Colbourn, *Euromissiles: The Nuclear Weapons that Nearly Destroyed NATO* (Ithaca, NY: Cornell University Press, 2022).

³¹ Beatrice Heuser, “The Development of NATO’s Nuclear Strategy,” *Contemporary European History*, Vol. 4, No. 1 (1995), pp. 37–66, <<https://doi.org/10.1017/S0960777300003258>>; Colin Gray, “Theater Nuclear Weapons: Doctrines and Postures,” *World Politics*, Vol. 28, No. 2 (1976), pp. 300–14, <<https://doi.org/10.2307/2009894>>; Stromseth, *The Origins of Flexible Response*; Wolfgang E. Heisenberg, “The Reception of American Deterrence Theory in the Federal Republic of Germany and the German ‘Nuclear Debate’ of the 1950s,” *Journal of Strategic Studies*, Vol. 9, No. 4 (1986), pp. 70–83, <<https://doi.org/10.1080/01402398608437279>>; Henry Kissinger, *The White House Years* (Boston, MA: Little, Brown, 1979), p. 266; André Dumoulin and Quentin Michel, “La Belgique et les Armes Nucléaires” [Belgium and nuclear weapons], *Courrier Hebdomadaire du CRISP*, No. 1871–72 (2005), pp. 6–67, <<https://doi.org/10.3917/cris.1871.0006>>.

³² Flournoy and Townsend, “Biden Advisers on Nuclear Sharing.”

NATO cohesion because of their role as “connecting tissue” between conventional and strategic forces. Specifically, as the most “usable” component of the US nuclear arsenal, TNW are said to offer an important means of limited nuclear escalation, thereby strengthening deterrence and reassuring European allies. This perspective is particularly prominent in light of Russia’s increasing emphasis on its own TNW, which can now also be deployed in Belarus and are estimated to number up to 2,000.³³ US TNW, for their part, are regarded as necessary for NATO to counter these Russian capabilities.³⁴

However, skeptics have asserted that the idea of nuclear sharing as a positive contributor to alliance cohesion is often taken for granted yet rarely scrutinized. In fact, some critics have argued that withdrawing these weapons would eliminate a source of dissent within NATO that undermines, rather than strengthens, alliance cohesion.³⁵ Ultimately, NATO’s nuclear-sharing arrangements remain bilateral agreements between the United States and individual European allies, each shaped by unique political dynamics and associated technical characteristics. The sum of these relationships does not automatically translate into a cohesive or unified alliance, as diverging national perspectives may still prevail.³⁶ More broadly, skeptics argue that US TNW are militarily ineffective for a combination of four main reasons.

First, skeptics caution against expecting political unity among NATO allies during times of crisis and conflict. Indeed, as was the case during the Cold War, it is difficult to envision a scenario in which NATO allies, including those that feel most threatened by Russia, would reach a consensus in the North Atlantic Council (NAC) to use TNW. This is unsurprising, since even a limited, localized nuclear exchange would come with catastrophic consequences for European countries whose territory is near the area of conflict.³⁷ Indeed, during the Cold War, West German analysts noted that

³³ Hans Kristensen, Matt Korda, Eliana Johns, and Mackenzie Knight, “Russian Nuclear Weapons, 2024,” *Bulletin of the Atomic Scientists*, Vol. 80, No. 2 (2024), pp. 118–45, <<https://doi.org/10.1080/00963402.2024.2314437>>.

³⁴ Petr Suchy and Bradley Thayer, “Weapons as Political Symbolism: The Role of US Tactical Nuclear Weapons in Europe,” *European Security*, Vol. 23, No. 4 (July 2014), pp. 509–28, <<https://doi.org/10.1080/09662839.2014.932772>>; Andreas Wenger, “Reconciling Alliance Cohesion with Policy Coherencem” in Stéfanie von Hlatky and Andreas Wenger, eds., *The Future of Extended Deterrence: The United States, NATO and Beyond* (Washington, DC: Georgetown University Press, 2015), pp. 199–224.

³⁵ Paolo Foradori, “Tactical Nuclear Weapons in Italy: Striking a Balance between Disarmament Aspirations and Alliance Obligations,” *Nonproliferation Review*, Vol. 19, No. 1 (2012), pp. 13–29, <<https://doi.org/10.1080/10736700.2012.655083>>.

³⁶ On the compatibility between bilateralism, regionalism, minilateralism, and multilateralism see Thomas Renard, “Partnerships for Effective Multilateralism? Assessing the Compatibility Between EU Bilateralism, (Inter-)Regionalism and Multilateralism,” *Cambridge Review of International Affairs*, Vol. 29, No. 1 (2015), pp. 18–35, <<https://doi.org/10.1080/09557571.2015.1060691>>; Megan Dee, “Minilateralism and Effective Multilateralism in the Global Nuclear Order,” *Contemporary Security Policy*, Vol. 45, No. 3 (2024), pp. 494–524, <<https://doi.org/10.1080/13523260.2024.2373658>>.

³⁷ Horowitz, “Why Do They Want American Nukes?”; Christoph Bluth, “Reconciling the Irreconcilable: Alliance Politics and the Paradox of Extended Deterrence in the 1960s,” *Cold War History*, Vol. 1, No. 2 (2001), pp. 73–102, <<https://doi.org/10.1080/713999919>>; Beatrice Heuser, *NATO, Britain, France and the FRG: Nuclear Strategies and Forces for Europe, 1949–2000* (London: Palgrave Macmillan, 1997); Lili Xia, Alan Robock, Kim Scherrer, Cheryl S. Harrison, Benjamin Leon Bodirsky, Isabelle Weindl, Jonas Jägermeyr, Charles G. Bardeen, Owen B. Toon, and Ryan Heneghan, “Global Food Insecurity and Famine from Reduced Crop, Marine Fishery, and Livestock Production due to Climate Disruption from Nuclear War Soot Injection,” *Nature Food*, Vol. 3 (August 2022), pp. 586–96, <<https://www.nature.com/articles/s43016-022-00573-0.pdf>>.

what is “tactical” (or battlefield) use to those distant from the front line may very well be “strategic” to those in close proximity to the conflict.³⁸

Second, in a departure from the Cold War era, NATO’s conventional superiority over Russia is now widely acknowledged, including by Moscow.³⁹ This raises questions about the continuing need to rely on nuclear arms to compensate for conventional military shortcomings. Experts therefore argue that the same rationale that once guided NATO’s strategy of coercive nuclear escalation might now push Russia to rely on its own nuclear weapons in a similar manner.⁴⁰

Third, there is a long-standing question of whether any form of controlled escalation, or a “limited nuclear war,” is even possible.⁴¹ In any case, even the most optimistic assessments of NATO’s ability to conduct nuclear operations in a controlled escalation cannot ignore the fact that the risks of escalation can never be completely eliminated.

Fourth, significant operational weaknesses continue to exist, despite ongoing TNW modernization efforts. The replacement of the current weapons with more accurate and guided B61-12 nuclear gravity bombs is a step forward. Moreover, the modernization of NATO’s dual-capable aircraft (DCA) fleet to include advanced F-35 fighters with enhanced capabilities to suppress enemy air defenses is expected to improve the operational readiness of the alliance’s TNW mission. However, NATO bases hosting US weapons remain highly vulnerable to Russian conventional counterforce capabilities. In fact, even if NATO were to consider using nuclear weapons in a regional conflict, it is widely believed in Washington that the US president would avoid relying on DCA as the primary means for a nuclear response, because of their perceived riskiness relative to using a submarine- or land-based missile.⁴²

Moreover, some of the operational limitations of NATO’s TNW are not lost on the mission’s advocates.⁴³ In this regard, recent research by Robert Bell on NATO’s nuclear-sharing mission reveals that current and former US and NATO officials do not believe that the B61s need to remain forward-deployed “on purely military grounds.”⁴⁴ Instead, Bell argues that if NATO truly relied on these weapons “as its

³⁸ Davidson, “Tactical Nuclear Defense”; Samuel Cohen and William Van Cleave, “Western European Collateral Damage from Tactical Nuclear Weapons,” *RUSI Journal*, Vol. 121, No. 2 (1976), pp. 32–38, <<https://doi.org/10.1080/03071847609419260>>; Tobias Bunde and Michal Onderco, “Permissive Dissensus: The Nuclear Dimension of the German *Zeitenwende*,” *Nonproliferation Review*, Vol. 30, Nos. 4–6 (2024), pp. 159–72, <<http://doi.org/10.1080/10736700.2024.2437290>>.

³⁹ Richard D. Sokolsky, “The New NATO–Russia Military Balance: Implications for European Security,” Carnegie Endowment for International Peace, March 13, 2017, <<https://carnegieendowment.org/posts/2017/03/the-new-nato-russia-military-balance-implications-for-european-security>>.

⁴⁰ Keir A. Lieber and Daryl G. Press, “Coercive Nuclear Campaign in the 21st Century: Understanding Adversary Incentives and Options for Nuclear Escalation,” Report 2013-001, US Naval Postgraduate School, Project on Advanced Systems and Concepts for Countering Weapons of Mass Destruction, March 2013, <<https://apps.dtic.mil/sti/pdfs/ADA585975.pdf>>.

⁴¹ Jervis, “Why Nuclear Superiority Doesn’t Matter.”

⁴² Former US official at National Nuclear Security Administration, personal interview with author, Washington, DC, January 26, 2024. The United States also has low-yield warheads loaded on some of the US Navy’s submarine-launched Trident D5 ballistic missiles. See Fred Kaplan, “Here Are the Scenarios Where Putin Might Actually Use a Nuke,” *Slate*, March 1, 2022, <<https://slate.com/news-and-politics/2022/03/here-are-the-scenarios-where-putin-might-actually-use-a-nuke.html>>.

⁴³ William Alberque and Artur Kacprzyk, “More Pillars Needed: Ten Options for Europe to Improve NATO’s Nuclear Deterrence,” Stimson Center, October 2, 2024, <<https://www.stimson.org/2024/more-pillars-needed-nato-nuclear-deterrence>>.

⁴⁴ Bell, “NATO Nuclear Burden-Sharing Post-Crimea,” p. 247.

policy states,” it probably ought to undertake several steps “to enhance its capabilities and credibility far more substantially than it actually has.”⁴⁵ Accordingly, TNW advocates have called for increasing the number and readiness of DCA, carrying out more realistic training drills, and further expanding the number of allies actively supporting the nuclear mission.⁴⁶ Yet, they also acknowledge that any such proposals are likely to be met with resistance by many allies, and few or none of the steps they envision “would likely find consensus in NATO at present.”⁴⁷ The ongoing replacement of NATO’s existing bombs and delivery systems has shielded the existing model from efforts to downscale the TNW mission. Still, these efforts do not fundamentally address the long-standing problems highlighted above.

Proponents of the TNW mission do not focus solely on deterrence and defense. They also argue that these weapons serve a crucial role in providing allied reassurance and dissuading nuclear proliferation under the US nuclear umbrella.⁴⁸ While US TNW are generally deemed to have played a significant role in preventing European countries, especially West Germany, from pursuing their own nuclear arsenals in the 1960s, this argument is more contested today.⁴⁹ Qualitative and quantitative studies on whether positive nuclear-security guarantees can substitute for an indigenous nuclear-weapons program have yielded inconclusive and inconsistent results.⁵⁰ Additionally, even without US TNW, NATO allies remain under the umbrella of long-range US nuclear

⁴⁵ Bell, “NATO Nuclear Burden-Sharing Post-Crimea,” p. 75. Bell lists the following as possible steps: increase the frequency of Nuclear Planning Group (NPG) meetings, rescind the “three noes” pledge made in 1997 (where NATO assured Russia it had no intention, no plan, and no reason to deploy nuclear weapons on the territory of new allies); reinstate nuclear-strike planning at Supreme Headquarters Allied Powers Europe (SHAPE) and augment the staff at its Nuclear Operations Directorate; bring DCA mission-related capability targets into the NATO Defense Planning Process (NDPP) process; include more non-DCA host allies in Conventional Support to Nuclear Operations (CNSO); and urge allies to participate in the DCA mission. See also Alberque and Kacprzyk, “More Pillars Needed.”

⁴⁶ Durkalec and Kroenig, “NATO’s Nuclear Deterrence,” Roberts, *The Case for U.S. Nuclear Weapons in the 21st Century*; Gilli, “Recalibrating NATO Nuclear Policy”; Bell, “Modernise, Expand or Complement?”

⁴⁷ Bell, “NATO Nuclear Burden-Sharing Post-Crimea,” p. 76; former official at NATO, personal interview with author, video call, June 20, 2024; Graca and Gotkowska, “NATO’s Nuclear Deterrence.” NATO allies are currently exploring options to increase the survivability of US TNW in Europe through the adoption of a “dispersal strategy.” This would make it harder for Russia to target these weapons by introducing uncertainty about their locations. However, Russia could respond by expanding its lists of potential targets across Europe, both known and hypothetical. Thus, while addressing one issue, this approach raises additional vulnerabilities, increasing the risk of nuclear strikes on a larger portion of Europe. Moreover, a dispersal strategy does not fundamentally address any of the other issues mentioned herein. See Erästö, “More Investment in Nuclear Deterrence.”

⁴⁸ Tobias Bunde, “The Risks of an Incremental German Exit from Germany’s Nuclear Sharing Arrangement,” *Texas National Security Review*, August 23, 2021, pp. 11–20, <<https://tnsr.org/roundtable/policy-roundtable-the-future-of-trans-atlantic-nuclear-deterrence/>>.

⁴⁹ Trachtenberg, *A Constructed Peace*; Susanna Schrafstetter and Stephen Twigge, “Trick or Truth? The British ANF Proposal, West Germany and US Non-Proliferation Policy, 1964–1968,” *Diplomacy and Statecraft*, Vol. 11, No. 2 (2000), pp. 161–84, <<https://doi.org/10.1080/09592290008406161>>; Gene Gerzhoy, “Alliance Coercion and Nuclear Restraint: How the United States Thwarted West Germany’s Nuclear Ambitions,” *International Security*, Vol. 39, No. 4 (2015), pp. 91–129; <https://doi.org/10.1162/ISEC_a_00198>; Jonas Schneider and Gene Gerzhoy, “Correspondence: The United States and West Germany’s Quest for Nuclear Weapons,” *International Security*, Vol. 41, No. 1 (2016), pp. 182–85, <https://doi.org/10.1162/ISEC_c_00253>; Alexandre Debs and Nuno P. Monteiro, *Nuclear Politics: The Strategic Causes of Proliferation* (Cambridge, UK: Cambridge University Press, 2017).

⁵⁰ Fuhrmann and Sechser, “Nuclear Strategy, Nonproliferation, and the Causes of Foreign Nuclear Deployments”; Alexander Lanoszka, *Atomic Assurance: The Alliance Politics of Nuclear Proliferation* (Ithaca, NY: Cornell University Press, 2018); Jonas Schneider, “Beyond Assurance and Coercion: US Alliances and the Psychology of Nuclear Reversal,” *Security Studies*, Vol. 29, No. 5 (2020), pp. 927–63, <<https://doi.org/10.1080/09636412.2020.1859125>>; Philipp Bleek and Eric Lorber, “Security Guarantees and Allied Nuclear Proliferation,” *Journal of Conflict Resolution*, Vol. 58, No. 3 (2013), pp. 429–54, <<https://doi.org/10.1177/002200271350905>>; Dong-Joon Jo and Erik Gartzke, “Determinants of Nuclear Weapons Proliferation,” *Journal of Conflict Resolution*, Vol. 5, No. 1 (2007), pp. 167–94, <<https://doi.org/10.1177/0022002706296158>>.

forces. NATO also formally acknowledges that the nuclear forces of France and the United Kingdom “have a deterrent role of their own and contribute significantly to the overall security of the alliance.”⁵¹ The overall prospect of a German indigenous nuclear-weapons program seems remote, given the prevailing sentiment against such a program in Berlin’s strategic discourse and security establishment.⁵²

In summary, scholars have extensively debated the deterrence and reassurance value of the US nuclear weapons in Europe. Whether the presence or absence of US nuclear deployments in Europe influences adversary perceptions of the US commitment to defending its NATO allies, including through the use of nuclear weapons, remains an open question. Even if some allies may believe these weapons have utility for purposes of deterrence and reassurance, NATO’s current TNW mission appears militarily suboptimal at best. Allied leaders continue to defend the status quo against both those who have fervently advocated withdrawal and those who seek to expand the TNW mission. This suggests that there are deeper underlying factors at play, beyond mere institutional lethargy and path dependence, that make the status quo resistant to change.

Theater nuclear weapons as tools of alliance management

Kenneth Waltz, in his *Theory of International Politics*, noted that, “in the quest for security, alliances have to be made. Once made, they have to be managed ... Alliance strategies are always the product of compromise since the interests of allies and their notions of how to secure them are never identical.”⁵³ While scholars have paid much attention to why alliances form, there has been far less focus on how allies manage their interests within these security arrangements.

The previous section outlined four reasons why skeptics of NATO’s TNW mission argue that these deployments lack military utility or credibility. It also illuminated some of the shortcomings acknowledged by proponents of the mission. Though such critiques are persuasive from an assessment based on the logic of military strategy, they overlook a crucial point. This section suggests that an important motivation for most NATO allies to remain committed to the current TNW mission may actually have little to do with deterrence or reassurance. Instead, the section argues that US TNW stationed in Europe are primarily tools of alliance management. The alliance-management functions provide incentives to remain committed to the current TNW mission through three mechanisms: nuclear deflection, nuclear legitimation, and nuclear consultation. Each mechanism is examined in turn below.

Nuclear deflection

US TNW in Europe contribute to alliance management by facilitating nuclear deflection. This term refers to the practice of directing attention away from issues related to conventional burden sharing by instead talking about TNW. NATO burden-sharing discussions typically revolve around the “three Cs”: cash, capabilities, and

⁵¹ NATO, “NATO’s Nuclear Deterrence Policy and Forces,” November 30, 2023, <https://www.nato.int/cps/en/natohq/topics_50068.htm>.

⁵² Bunde, “The Risks of an Incremental German Exit.”

⁵³ Kenneth Waltz, *Theory of International Politics* (Reading, MA: Addison-Wesley, 1979), p. 166.

commitments. As a result, these discussions emphasize (increased) defense spending, investments in what are deemed the “right capabilities,” and force commitments to NATO deployments.⁵⁴ TNW host states often cite their TNW participation as an important means to compensate for potential deficiencies in other burden-sharing areas, particularly related to defense spending.⁵⁵ Indeed, NATO figures reveal that, until 2024, none of the five TNW host nations met the 2006 guideline that each member country should allot 2 percent of its gross domestic product to military spending.⁵⁶ In a parliamentary hearing on nuclear disarmament in December 2019, for instance, Belgium’s ambassador to NATO, Pascal Heyman, argued that “Belgium compensates for its shortcomings in several other areas of burden and risk sharing by undertaking nuclear responsibilities.”⁵⁷ Likewise, a Dutch official said, “We can say that we are not at 2% but at least we are in DCA/HR,” referring to the high-readiness component of DCA.⁵⁸ An Italian official similarly stated, “the 3 C’s count,” but “F-35s count and nuclear counts” as well.⁵⁹

Even if host nations invoke their participation in the TNW mission to direct attention away from conventional burden sharing, it remains unclear how the nuclear element fits into NATO’s burden-sharing conversation. So far, scholarly research has not established a causal relationship between the withdrawal of US nuclear deployments from Canada in 1972 and 1984, and Greece in 2001, and increases in those countries’ spending on conventional forces.⁶⁰ Moreover, several other NATO countries have long failed to live up to their stated burden-sharing commitments while not serving as hosts of US TNW.⁶¹ And, even if Turkey currently hosts US nuclear weapons at Incirlik Air Base, its DCA are not maintained at high readiness levels.⁶²

Nevertheless, the fact of the matter remains that any changes to NATO’s TNW mission would likely trigger difficult conversations. These would pertain to the nuclear host states’ contributions to NATO’s deterrence and defense posture. Although there has been long-standing opposition to the TNW mission among the public in Belgium, Germany, Italy, and the Netherlands, government officials from those countries seem to believe that the societal costs of much greater conventional readiness would be

⁵⁴ NATO, “Doorstep Statement by NATO Secretary General Ahead of the Meetings of NATO Foreign Ministers,” March 31, 2017, <https://www.nato.int/cps/en/natohq/opinions_142787.htm>.

⁵⁵ Bell, “NATO Nuclear Burden-Sharing Post-Crimea.”

⁵⁶ NATO Public Diplomacy Division, “Defence Expenditure of NATO Countries (2014–2023),” July 7, 2023, <https://www.nato.int/nato_static_fl2014/assets/pdf/2023/7/pdf/230707-def-exp-2023-en.pdf>; NATO Public Diplomacy Division, “Defence Expenditure of NATO Countries (2014–2024),” June 12, 2024, <https://www.nato.int/nato_static_fl2014/assets/pdf/2024/6/pdf/240617-def-exp-2024-en.pdf>.

⁵⁷ Chambre de Représentants de Belgique, “Le Désarmement Nucléaire: Auditions” [Nuclear disarmament: hearings], DOC 55 0833/001, December 3, 2019, p. 47 <<https://www.dekamer.be/FLWB/PDF/55/0833/55K0833001.pdf>>.

⁵⁸ Bell cites an interview with an official from the Dutch Permanent Representation to NATO; see Bell, “NATO Nuclear Burden-Sharing Post-Crimea,” pp. 203, 267.

⁵⁹ Bell cites an interview with an official from the Italian Permanent Representation to NATO; see Bell, “NATO Nuclear Burden-Sharing Post-Crimea,” pp. 194, 267.

⁶⁰ France and the United Kingdom both ceased being hosts for US foreign-deployed nuclear weapons, but these states are special cases by virtue of their own status as nuclear-armed states. France had also already ceased to host US weapons before it acquired nuclear capabilities of its own. See Heuser, *NATO, Britain, France and the FRG*.

⁶¹ NATO Public Diplomacy Division, “Defence Expenditure of NATO Countries (2014–2023).”

⁶² Kristensen et al., “Nuclear Weapons Sharing, 2023”; Mustafa Kibaroglu, “Acceptance and Anxiety: Turkey (Mostly) Embraces Obama’s Nuclear Posture,” *Nonproliferation Review*, Vol. 18, No. 1 (2011), pp. 201–17, <<https://doi.org/10.1080/10736700.2011.549181>>.

higher.⁶³ Some NATO allies hosting B61s also argue that they gain a level of prestige or status within the alliance as a result of their contributions to the TNW mission.⁶⁴ Although Ankara's position on NATO's TNW mission is not well documented, some analysts suggest that Turkey is eager to maintain a higher status in this mission than Greece.⁶⁵ Furthermore, officials from Belgium, Germany, Italy, and the Netherlands assert that their participation in the TNW mission grants them a privileged position within the alliance by virtue of their participation in the NATO "Small Group"—key stakeholders in nuclear operations.⁶⁶ This Small Group is an informal subset of the "High-Level Group," which includes senior officials from all member countries except France. The High-Level Group, in turn, operates as an informal subset of the NATO Nuclear Planning Group, which again involves every member except France. Whether or not the Small Group is an important venue of influence is open to interpretation, as NATO offers multiple channels for consultation. The highest level of informal consultations typically occurs among the nuclear-armed states—France, the United Kingdom, and the United States. Consultations among the three are generally folded within the "Quad" meeting, also including Germany, to redress the latter's dissatisfaction with its exclusion from the discussions of the group of nuclear-armed states.⁶⁷ Meetings of the Quad, for their part, are often followed by meetings of the "Big 5," which includes Italy as well. Without overestimating the importance of the Small Group, it is nonetheless true that its existence provides a venue for rank that distinguishes the TNW participants from other allies that are not included in the trio of nuclear-armed states, the Quad, or the Big 5.⁶⁸

Finally, the nuclear-deflection argument may also benefit Washington. Maintaining TNW in Europe can be considered a cost-effective approach to addressing allies'

⁶³ Manuel Lafont Rapnouil, Tara Varma, and Nick Witney, "Eyes Tight Shut: European Attitudes Towards Nuclear Deterrence," European Council on Foreign Relations, December 19, 2018, <https://ecfr.eu/special/eyes_tight_shut_european_attitudes_towards_nuclear_deterrence>. There are some indications that Russia's full-scale invasion of Ukraine has strengthened public support for the nuclear status quo in Germany and the Netherlands. It is, as of now, unclear if these effects will be durable in the long run. See Onderco et al., "Hawks in the Making?"; Liviu Horovitz and Michal Onderco, "How Germans Learned to Stop Worrying and Love the Bomb, and Then Probably Start Worrying Again," *War on the Rocks*, October 9, 2023, <<https://warontherocks.com/2023/10/how-germans-learned-to-stop-worrying-and-love-the-bomb-then-probably-start-worrying-again>>.

⁶⁴ *De Morgen*, "Topmilitair: De Kernwapens Kosten Ons Land Niets, en We Zitten Mee aan Tafel bij de Grote Jongens" [Top military official: the nuclear weapons cost our country nothing, and we have a seat at the table with the big boys], July 16, 2019, <<https://www.demorgen.be/politiek/topmilitair-de-kernwapens-kosten-ons-land-niets-en-we-zitten-mee-aan-tafel-bij-de-grote-jongens~bc04100e>>; Bell, "NATO Nuclear Burden-Sharing Post-Crimea," p. 194. Paolo Foradori finds mixed perceptions among Italian policy makers on this issue; see Foradori, "Tactical Nuclear Weapons in Italy."

⁶⁵ Robert Bell, "NATO Nuclear-Sharing Options for the New German Coalition," CSDS Policy Brief, Centre for Security, Diplomacy and Strategy, November 9, 2021, <https://csds.vub.be/wp-content/uploads/2023/09/CSDS-Policy-brief_2120_0.pdf>; former official at NATO, personal interview with author, video call, June 20, 2024; Mustafa Kibaroglu, "Turkey, NATO and Nuclear Sharing: Prospects after NATO's Lisbon Summit," in Paul Ingram and Oliver Meier, eds., "Perspectives and Proposals on the NATO Policy Debate," Arms Control Association and British American Security Information Council, May 2011, pp. 31–38, <https://www.armscontrol.org/sites/default/files/files/Reports/Report_2011May_Perspectives_Proposals_NATO_Policy_Debate.pdf>.

⁶⁶ Advisory Council on International Affairs, "Kernwapens in een Nieuwe Geopolitieke Werkelijkheid"; Bell, "NATO Nuclear Burden-Sharing Post-Crimea," p. 177, 194, 203; Chambre de Représentants de Belgique, "Le Désarmement Nucléaire"; Foradori, "Tactical Weapons in Italy."

⁶⁷ The Quad is an informal grouping consisting of NATO's three nuclear powers and Germany. It generally meets separately before all important meetings among the full alliance. See Steve Andreasen, Isabelle Williams, Brian Rose, Hans M. Kristensen, and Simon Lunn, "Building a Safe, Secure and Credible NATO Nuclear Posture," Nuclear Threat Initiative, January 2018, <https://media.nti.org/documents/NTI_NATO_RPT_Web.pdf>

⁶⁸ Bell, "NATO Nuclear Burden-Sharing Post-Crimea," p. 98.

concerns about US involvement in their security affairs. TNW deployments are cheaper to maintain than conventional deployments for the United States in both financial and domestic political terms.⁶⁹ Essentially, for all nations currently involved, participation in the TNW mission appears to enable them to preserve a specific level of status or role within the alliance that they believe would otherwise be more difficult or costly to obtain and sustain. Nuclear deflection accomplishes this by shifting the conversation about contentious issues related to conventional burden sharing and force deployments.

Nuclear legitimization

NATO's TNW mission may also contribute to alliance management through its role in nuclear legitimization. This is defined as strengthening the alliance's commitment to nuclear deterrence as the basis for its overall defense strategy. Although NATO formally declares itself a "nuclear alliance," the alliance itself does not own any nuclear weapons.⁷⁰ Rather, each of NATO's three nuclear-armed powers maintains absolute custody and control over its nuclear weapons. (It is also true that the United States has deployed some of its weapons in Europe and that the United Kingdom has assigned its nuclear deterrent to be used for the defense of NATO.) While serving as a Harvard professor before joining the Nixon administration, Henry Kissinger noted that one of the main tasks for the United States within NATO was "to overcome the trauma which attaches to the use of nuclear weapons and to decentralize the possession of nuclear weapons as rapidly as possible." Kissinger further argued, "Nothing would so much dispel the mystery of nuclear weapons as their possession by the Continental powers. Nothing would do more to help restore a measure of consistency to allied military planning."⁷¹ Indeed, by physically involving multiple allies in the nuclear posture of the alliance through foreign nuclear deployments, NATO's TNW mission limits these member countries' diplomatic flexibility. This prevents them from actively contributing to various initiatives aiming to reduce the perceived legitimacy of nuclear deterrence.

The participation of non-host states in NATO's CSNO (Conventional Support for Nuclear Operations), formerly called SNOWCAT (Support for Nuclear Operations with Conventional Air Tactics), has a somewhat similar effect.⁷² Through CSNO, non-nuclear allies provide military assets to support the nuclear-strike mission without formally being part of it. These contributions include escort operations and suppression of enemy air defenses.⁷³ NATO officials often stress that "NATO is seeking, always, the broadest possible cooperation and participation in the agreed nuclear burden-sharing arrangements."⁷⁴ The TNW mission is the most tangible manifestation of such cooperation. Even though it is not formally included in the

⁶⁹ Simon Duke, *The Burdensharing Debate: A Reassessment* (New York: Palgrave Macmillan, 1993).

⁷⁰ NATO, "Strategic Concept," p. 1.

⁷¹ Henry Kissinger, *Nuclear Weapons and Foreign Policy* (New York: W.W. Norton, 1957), p. 311.

⁷² Alberque and Kacprzyk, "More Pillars Needed."

⁷³ NATO does not disclose which allies participate in CSNO; see NATO Watch, "NATO's Nuclear Exercise 'Steadfast Noon' Taking Place in Europe," n.d., <<https://natowatch.org/newsbriefs/2020/natos-nuclear-exercise-steadfast-noon-taking-place-europe>>.

⁷⁴ NATO, "NATO Nuclear Policy in a Post-INF World: Speech by NATO Deputy Secretary General Rose Gottemoeller at the University of Oslo," September 9, 2019. <https://www.nato.int/cps/en/natohq/opinions_168602.htm>.

“three Cs,” the mission aims to share the political burden. In this way, it seeks to help legitimize the alliance’s commitment to nuclear deterrence as the cornerstone of NATO’s defense strategy.

The concept and implementation of nuclear deterrence have been subject to normative and political debate since the earliest days of the atomic age.⁷⁵ Advocates argue that nuclear weapons have played a crucial role in preventing major conflict among nuclear-armed states and can contribute to strategic stability.⁷⁶ Critics respond that nuclear deterrence may not work, or at the least, that evidence for its success is hard to pinpoint.⁷⁷ As Alexander L. George and Richard Smoke note, “It is difficult ... to identify cases of deterrence success reliably in the absence of better data on the policy calculations of potential initiators who were presumably deterred. Instances of apparently successful deterrence ... may be spurious.”⁷⁸ Critics further argue that nuclear weapons violate international legal requirements for proportionality and discrimination regarding the use of military force, pose risks of environmental damage, and divert public resources away from essential human needs. They posit that theories of nuclear deterrence are based on unrealistic expectations about policy makers’ rationality and communication abilities and that such expectations downplay the possibility of accidental nuclear use.⁷⁹ Finally, they contend that nuclear deterrence fuels proliferation by reinforcing the belief that nuclear weapons are necessary instruments for the protection of a country.⁸⁰

Proponents of nuclear deterrence have been engaged in campaigns to counter the above arguments. It is important to recognize that, among those who advocate the continued practice of nuclear deterrence, there is considerable variation in their viewpoints regarding the right balance between conventional forces, theater nuclear weapons, and strategic nuclear weapons.⁸¹ France, the United Kingdom, and the United States, in particular, have encouraged NATO to endorse initiatives aiming to enhance the legitimacy of their nuclear-weapons programs with advocacy in allied capitals and media outlets, as well as through partnerships with universities, think tanks, and nuclear-policy advocacy groups.⁸² Officials at NATO headquarters in Brussels refer to this as boosting the “nuclear IQ” across the alliance, among both policy makers and publics in member countries. At the political level, NATO has conducted tabletop exercises to familiarize the NAC with the nuclear aspects of potential crises.⁸³ NATO’s military staff have also been tasked with rebuilding “muscle

⁷⁵ Kjølv Egeland, “Sustaining Social License: Nuclear Weapons and the Art of Legitimation,” *International Politics*, Vol. 60, No. 1 (2023), pp. 598–615, <<https://doi.org/10.1057/s41311-022-00404-w>>; Lawrence Wittner, *Confronting the Bomb: A Short History of the World Nuclear Disarmament Movement* (Redwood City, CA: Stanford University Press, 2009).

⁷⁶ Scott Sagan and Kenneth Waltz, *The Spread of Nuclear Weapons: An Enduring Debate* (New York: W.W. Norton, 2013).

⁷⁷ Ward Wilson, “The Myth of Nuclear Deterrence,” *Nonproliferation Review*, Vol. 15, No. 3 (2008), pp. 421–39, <<https://doi.org/10.1080/10736700802407101>>.

⁷⁸ Alexander L. George and Richard Smoke, *Deterrence in American Foreign Policy: Theory and Practice* (New York: Columbia University Press, 1974), p. 516.

⁷⁹ James E. Doyle, “Why Eliminate Nuclear Weapons,” *Survival*, Vol. 55, No. 1 (2013), pp. 7–34, <<https://doi.org/10.1080/00396338.2013.767402>>; Scott D. Sagan, *The Limits of Safety: Organizations, Accidents and Nuclear Weapons* (Princeton, NJ: Princeton University Press, 1993); Wittner, *Confronting the Bomb*.

⁸⁰ Jeffrey W. Knopf, “Varieties of Assurance,” *Journal of Strategic Studies*, Vol. 35, No. 3 (2012), pp. 375–99, <<https://doi.org/10.1080/01402390.2011.643567>>.

⁸¹ Jervis, “Why Nuclear Superiority Doesn’t Matter.”

⁸² Brad Roberts, “On Campaigning for Nuclear Deterrence,” in Stephan Frühling and Andrew O’Neil, eds., *Alliances, Nuclear Weapons and Escalation: Managing Deterrence in the 21st Century* (Canberra: ANU Press, 2021), pp. 187–99.

⁸³ Gilli, “Recalibrating NATO Nuclear Policy,” p. 9

memory” to enhance their ability to provide response options across both the conventional and nuclear domains in the event of an attack.⁸⁴ Allied officials also emphasize their commitment to risk reduction through measures designed to lower the chances of accidents, misunderstandings, and escalation involving nuclear weapons.⁸⁵ The secrecy surrounding nuclear policy makes it challenging to fully understand and accurately assess the efficacy of the actions being taken in this area. Nonetheless, the expectation is that more and better information about the dynamics of nuclear deterrence will foster greater support within NATO governments and their respective publics. This support is needed for NATO to maintain nuclear deterrence as the basis of its defense strategy.⁸⁶

NATO’s three nuclear powers are thus constantly seeking to legitimize their reliance on nuclear deterrence as the cornerstone of their defense strategies. While other motivations for US TNW in Europe exist, these nuclear-legitimation practices also drive their push to include non-nuclear allies in the nuclear mission of the alliance.⁸⁷ Through nuclear-sharing arrangements, allies effectively divide the immense political burdens associated with nuclear deterrence. These actions help to counter fears that ending the TNW mission could lead to a sharper focus on NATO’s nuclear-armed member countries as “guilty,” “unenlightened,” and “retrograde” actors “standing in the way of nuclear disarmament.”⁸⁸ Pro-nuclear voices within the alliance argue that, without nuclear-sharing arrangements, NATO would lose its “shared deterrence culture,” and non-nuclear allies might become less inclined to support NATO’s nuclear powers in international forums.⁸⁹

The TNW mission’s impact on host nations’ nuclear diplomacy becomes evident when one looks at the various policies adopted by different NATO allies concerning the 2017 Treaty on the Prohibition of Nuclear Weapons (TPNW). A key goal of the TPNW is to promote a global norm against the possession of nuclear weapons.⁹⁰ The treaty is incompatible with NATO’s TNW mission, because it explicitly prohibits the “stationing, installation or deployment of any nuclear weapons or other nuclear explosive devices in the territory of a State party, or at any place under its jurisdiction

⁸⁴ NATO, “Vilnius Summit Communiqué,” July, 11 2023, <https://www.nato.int/cps/en/natohq/official_texts_217320.htm>; Alberque and Kacprzyk, “More Pillars Needed.”

⁸⁵ US Mission to International Organizations in Geneva, “US Ambassador Turner’s Remarks to the Conference on Disarmament on the Cessation of the Nuclear Arms Race and Nuclear Disarmament,” May 16, 2023, <<https://geneva.usmission.gov/2023/05/16/cessation-of-the-nuclear-arms-race-and-nuclear-disarmament>>; official at US Department of State, personal interview with author, Washington, DC, October 21, 2022; Benoît Pelopsidas and Kjølsv Egeland, “The False Promise of Nuclear Risk Reduction,” *International Affairs*, Vol. 100, No. 1 (2024), pp. 345–60, <<http://doi.org/10.1093/ia/iiaad290>>.

⁸⁶ Jacek Durkalec, “NATO Strategy to Counter Nuclear Intimidation,” LLNL-CONF-772889, Lawrence Livermore National Laboratory, April 25, 2019, <<https://www.osti.gov/servlets/purl/1532625>>; Roberts, “On Campaigning for Nuclear Deterrence.”

⁸⁷ Egeland, “Spreading the Burden”; Michael Quinlan, *Thinking About Nuclear Weapons* (London: Royal United Services Institute, 1997); David Yost, “US Debate on NATO Nuclear Deterrence,” *International Affairs*, Vol. 87, No. 6 (2011), pp.1401–38, <<https://doi.org/10.1111/j.1468-2346.2011.01043.x>>; Malcom Chalmers and Simon Lunn, “NATO’s Tactical Nuclear Dilemma,” Royal United Services Institute, March 2010, pp. 1–4, <https://static.rusi.org/201003_op_natos_tactical_nuclear_dilemma.pdf>; David Yost, *NATO Transformed: The Alliance’s New Roles in International Security* (Washington, DC: United States Institute of Peace, 1998).

⁸⁸ Yost, “US Debate on NATO Nuclear Deterrence.”

⁸⁹ Yost; Egeland, “Spreading the Burden.”

⁹⁰ Rebecca Davis Gibbons, “Addressing the Nuclear Ban Treaty,” *Washington Quarterly*, Vol. 42, No. 1 (2019), pp. 27–40, <<https://doi.org/10.1080/0163660X.2019.1590080>>.

or control.”⁹¹ The French government has been clear and consistent about its opposition to the TPNW, and French President Emmanuel Macron has accused “advocates of abolition” of attacking the legitimacy of nuclear deterrence “where it is easiest, that is to say in ... European democracies.”⁹² The United Kingdom has similarly objected to the TPNW.⁹³ Moreover, in the lead-up to the treaty negotiations, on October 17, 2016, the US mission to NATO sent a letter to all allied capitals urging them to vote against a UN resolution that called for formal negotiations on the ban treaty. The United States reminded its allies that the previous NATO summit had reaffirmed the enduring significance of nuclear deterrence as a “core element of NATO’s overall strategy” and that NATO was a “nuclear alliance.”⁹⁴

NATO has attempted to present a united front against the TPNW, and no NATO member has joined the treaty. However, individual allies have at times sent mixed messages, revealing that NATO members may not be as unified on this issue as official statements suggest.⁹⁵ Although a nuclear host nation, the Netherlands participated in the TPNW negotiations, even if it ended up voting against the draft treaty. It also participated as an observer at the TPNW’s First Meeting of State Parties in June 2022, together with NATO members Belgium, Germany, and Norway, alongside Finland and Sweden, which, at the time, were candidates for NATO membership.⁹⁶ Belgium, Germany, and Norway participated a second time as observers in 2023.⁹⁷ Sweden’s stance is particularly illustrative: it initially voted in favor of adopting the TPNW in 2017, abstained on the annual UN General Assembly resolution on the treaty until 2021, and then shifted to a “no” vote in 2022 after applying for NATO membership.⁹⁸ When explaining why they did not join the TPNW, representatives of these countries pointed to the incompatibility of the treaty with their commitment to NATO and ongoing Russian nuclear threats in the context of the war in Ukraine, among other issues.⁹⁹

⁹¹ Moritz Kütt and Zia Mian, “Setting the Deadline for Nuclear Weapon Removal from Host States Under the Treaty on the Prohibition of Nuclear Weapons,” *Journal for Peace and Nuclear Disarmament*, Vol. 5, No. 1 (2022), pp. 148–61, <<https://doi.org/10.1080/25751654.2022.2046405>>.

⁹² Élysée, “Speech of the President of the Republic on the Defense and Deterrence Strategy,” February 7, 2020, <<https://www.elysee.fr/en/emmanuel-macron/2020/02/07/speech-of-the-president-of-the-republic-on-the-defense-and-deterrence-strategy>>.

⁹³ Somini Sengupta and Rick Gladstone, “United States and Allies Protest U.N. Talks to Ban Nuclear Weapons,” *New York Times*, March 27, 2017, <<https://www.nytimes.com/2017/03/27/world/americas/un-nuclear-weapons-talks.html>>; UK Mission to UN in New York, “P5 Joint Statement on the Treaty on the Non-Proliferation of Nuclear Weapons,” October 24, 2018, <<https://www.gov.uk/government/news/p5-joint-statement-on-the-treaty-on-the-non-proliferation-of-nuclear-weapons>>.

⁹⁴ Nick Ritchie and Alexander Kmentt, “Universalising the TPNW: Challenges and Opportunities,” *Journal for Peace and Nuclear Disarmament*, Vol. 4, No. 1 (2021), pp. 70–93, <<https://doi.org/10.1080/25751654.2021.1935673>>.

⁹⁵ NATO, “Vilnius Summit Communiqué.”

⁹⁶ Rebecca Davis Gibbons and Stephen Herzog, “The First TPNW Meeting and the Future of the Nuclear Ban Treaty,” *Arms Control Today*, Vol. 52, No. 7 (2022), pp. 12–17, <<https://www.armscontrol.org/act/2022-09/features/first-tpnw-meeting-future-nuclear-ban-treaty>>.

⁹⁷ Tom Sauer, “The Impact of the Treaty on the Prohibition of Nuclear Weapons: The Crucial Role of the European NATO Allies,” *Peace Review*, Vol. 36, No. 2 (2024), pp. 359–69, <<https://doi.org/10.1080/10402659.2024.2337881>>.

⁹⁸ Thomas Jonter and Emma Rosengren, “Advocating Nuclear Disarmament as NATO Members—Lessons from the Past and Possible Routes Ahead for Finland and Sweden,” H-Diplo RJISSF Policy Roundtable on NATO and Nuclear Disarmament, February 9, 2024, <<https://issforum.org/policy-roundtable/h-diplorjissf-policy-roundtable-iii-2-nato-and-nuclear-disarmament>>.

⁹⁹ House of Representatives of the States General [of the Netherlands], “Citizens’ Initiative ‘Sign Against Nuclear Weapons’: Motion Proposed by the Member Servaes et al., No. 11,” April 28, 2016 <http://nonukes.nl/wp-content/uploads/2016/06/BZ119750C_Motion-Servaes-PvdA-C.S._NL-should-actively-work-start-negotiations-international-treaty.pdf>; Kingdom of the Netherlands, “Explanation of the Vote of the Netherlands on Text of Nuclear Ban Treaty,” July 7, 2017, <<https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/07/Netherlands-EoV-Nuclear-Ban->

Nonetheless, their engagement with the TPNW suggests that influential political factions in these countries support the goal of outlawing nuclear weapons, even if their governments officially align with NATO's position against the TPNW.

This situation implies that NATO's nuclear policy may be subject to internal debate and possible future shifts. It also suggests that, despite strong opposition to the treaty by the alliance's three nuclear-armed powers, NATO's stance may not be as rigid as it seems.¹⁰⁰ It is also notable that vocal domestic political factions within some non-nuclear allies maintained interest in the TPNW even after Russia's 2022 invasion of Ukraine, which may have motivated their observer-state status.¹⁰¹ Those in favor of the alliance's continued reliance on nuclear deterrence may thus have good reasons to seek to actively involve allies with substantial domestic anti-nuclear factions in formulating and implementing NATO nuclear strategy. Increasing alliance cohesion around the TNW mission could complicate the efforts of anti-nuclear advocates. By sharing some responsibility for nuclear policy with the host states, the TNW mission helps entrench a contested policy within the alliance.¹⁰² It obliges the TNW nations to "dip their hand in the blood" of preparing to use nuclear weapons and spreads the associated political burden.¹⁰³

Nuclear consultation

US TNW deployed in Europe not only entrench the alliance's continued reliance on nuclear deterrence but also contribute to anchoring the United States on the continent. Advocates of NATO's TNW mission frequently mention "linkage" when referring to these weapons, without elaborating on specific details.¹⁰⁴ Critically, US TNW in Europe, in and of themselves, do not guarantee any US involvement in a conflict. Nevertheless, US TNW do establish a type of transatlantic linkage by necessitating consultation about these very weapons, creating avenues for institutionalizing transatlantic dialogue on various matters.¹⁰⁵ Those involved in NATO's TNW mission have a guaranteed channel for bilateral communication with Washington. The United States can use this platform to influence European affairs more broadly, while other NATO member countries can utilize the presence of US

[Treaty.pdf](#)>; Ekaterina Shirobokova, "The Netherlands and the Prohibition of Nuclear Weapons," *Nonproliferation Review*, Vol. 25, No. 1 (2018), pp. 37–49, <<https://doi.org/10.1080/10736700.2018.1487600>>; Auswärtiges Amt, "Erst Vertragsstaatenkonferenz des Atomwaffenverbotsvertrags" [First Meeting of States Parties to the Treaty on the Prohibition of Nuclear Weapons], June 20, 2022, <<https://www.auswaertiges-amt.de/de/aussenpolitik/sicherheitspolitik/abruestung-ruestungskontrolle/avv-vertragsstaatenkonferenz/2538024>>.

¹⁰⁰ Von Hlatky and Lambert-Deslandes, "The Ukraine War"; Jennifer Knox, "NATO and the Nuclear Ban Treaty: What Happens Next?" *Union of Concerned Scientists*, June 27, 2022, <<https://blog.ucsusa.org/jknox/nato-and-the-nuclear-ban-treaty-what-happens-next>>; Bunde and Onderco, "Permissive Dissensus."

¹⁰¹ See, for example, the case of Belgium in Hartwig Hummel, "Contested Nuclear Sharing in Belgium: Domestic Political Dynamic for the Nuclear Weapons Ban," *Journal for Peace and Nuclear Disarmament*, Vol. 7, No. 2 (2024), pp. 468–92, <<https://doi.org/10.1080/25751654.2024.2385171>>.

¹⁰² Egeland, "Spreading the Burden."

¹⁰³ Chalmers, "NATO's Nuclear Weapons", p. 2; see also James Steinberg and Charles Cooper, "Political and Economic Issues within the Alliance: The Future of Burdensharing and the Southern Region," Note N-3177-FF, RAND Corporation, August 1990, <<https://www.rand.org/pubs/notes/N3177.html>>.

¹⁰⁴ Suchy and Thayer, "Weapons as Political Symbolism."

¹⁰⁵ Horowitz, "Why Do They Want American Nukes?"; see also Advisory Council on International Affairs, "Kernwapens in een Nieuwe Geopolitieke Werkelijkheid."

TNW in Europe as a focal point around which to foster their own connections across the Atlantic.¹⁰⁶

The presence of US TNW in Belgium, Germany, Italy, the Netherlands, and Turkey grants these countries privileged access to the United States for discussions on the security, safety, and maintenance of the weapons.¹⁰⁷ Each of these countries has bilateral agreements with Washington governing matters related to the deployment, storage, security, safety, and release of nuclear weapons, as well as associated cost sharing.¹⁰⁸ Although much about these arrangements remains cloaked in secrecy, the code names for some of the technical agreements are publicly known: Pine Cone for Belgium, Toolchest for Germany, Stone Ax for Italy, and Toy Chest for the Netherlands.¹⁰⁹ Whether these discussions on nuclear-sharing logistics indicate that NATO's European TNW host nations possess genuine influence over US nuclear policy is unclear.¹¹⁰ Nonetheless, in a 2019 parliamentary hearing at the Belgian Federal Parliament's Committee on National Defense, an official from the Ministry of Defense testified that the country's participation in NATO's nuclear-sharing mission had helped it acquire a privileged position within the alliance to express its views on these matters.¹¹¹

On the US side, the presence of TNW in the host countries serves as a tangible reminder of Washington's role in their security and allows it to actively seek and influence their security policy on a host of issues related to deterrence, nonproliferation, and disarmament. US officials regularly travel to Europe to engage in consultations regarding decisions on these weapons.¹¹² Washington's nuclear commitments that do not involve the actual deployment of weapons on allied territory, such as the US alliances with Japan and South Korea, also involve regular dialogue and consultation. However, the physical presence of US nuclear arms in Europe makes the regularity of such dialogues more pressing, even if they often serve primarily to address matters related to the safety and storage of these weapons.¹¹³

The consultations on TNW produce a political linkage that is particularly relevant for smaller- and medium-sized allies eager to keep the United States involved in Europe. These countries often view the United States as a means to counterbalance what they

¹⁰⁶ Robert Keohane, "The Big Influence of Small Allies," *Foreign Policy*, No. 2 (Spring 1971), pp. 161–82, <<https://doi.org/10.2307/1147864>>; William D. James, "Influencing the United States: Is the Game Worth the Candle for Junior Allies?" *International Politics*, Vol. 56, No. 6 (2022), pp. 1029–44, <<https://doi.org/10.1057/s41311-021-00331-2>>.

¹⁰⁷ Chambre de Représentants de Belgique, "Le Désarmement Nucléaire"; Leopoldo Nuti, *Italy and the Nuclear Choices of the Atlantic Alliance, 1955–1963* (Abingdon, UK: Palgrave MacMillan, 1992); Leopoldo Nuti, "The Role of the US in Italy's Foreign Policy," *International Spectator*, Vol. 38, No. 1 (2003), pp. 91–101, <<https://doi.org/10.1080/03932720308457016>>.

¹⁰⁸ Hans Kristensen, "US Nuclear Weapons in Europe: A Review of Post-Cold War Policy, Force Levels and War Planning," National Resources Defense Council, February 2005, <<https://www.nukestrat.com/pubs/EuroBombs.pdf>>.

¹⁰⁹ Kristensen, "US Nuclear Weapons in Europe," p. 13. The code name for Turkey is not publicly known.

¹¹⁰ Jeffrey H. Michaels, "No Annihilation without Representation: NATO Nuclear Use Decision-Making during the Cold War," *Journal of Strategic Studies*, Vol. 46, No. 5 (2023), pp. 1010–36, <<https://doi.org/10.1080/01402390.2022.2074405>>.

¹¹¹ Chambre de Représentants de Belgique, "Le Désarmement Nucléaire."

¹¹² Horowitz, "Why Do They Want American Nukes?"; James Goldgeier and Lily Wojtowicz, "Reassurance and Deterrence after Russia's War against Ukraine," *Security Studies*, Vol. 31, No. 4 (2022), pp. 736–43, <<https://doi.org/10.1080/09636412.2022.2140597>>; Alexander Lanoszka, "Poland in a Time of Geopolitical Flux," *Contemporary Politics*, Vol. 26, No. 4 (2020), pp. 458–74, <<https://doi.org/10.1080/13569775.2020.1777042>>.

¹¹³ Joshua Byun and Do Young Lee, "The Case against Nuclear Sharing in East Asia," *Washington Quarterly*, Vol. 44, No. 4 (2021), pp. 67–87, <<https://doi.org/10.1080/0163660X.2021.2018793>>.

perceive as excessive Russian and Franco-German influence.¹¹⁴ As explained by Liviu Horovitz, US TNW serve as a visible and tangible reminder of dangers to European security. Repeated negotiations over the years between Washington and Moscow on nuclear issues highlight the continued threat from Russian nuclear capabilities. Issues related to TNW can therefore readily be incorporated into a broader narrative of Russia-related problems, ranging from the 2008 Russo-Georgian War to the 2014 annexation of Crimea and the 2022 full-scale invasion of Ukraine. Central and Eastern European countries have long feared that their interests may be disregarded by Berlin and Paris to assuage Moscow's demands.¹¹⁵ Their long-standing opposition to the now-defunct German plans to build the Nord Stream 2 pipeline and their criticism of Paris's attempts to maintain some sort of relationship with Moscow during the initial weeks of Russia's 2022 invasion of Ukraine are cases in point.¹¹⁶ As their counterparts in Western Europe did five decades ago, governments in Central and Eastern Europe now seek to encourage the United States to take a heightened interest in their regional affairs.¹¹⁷ This has particularly been the case during the ongoing period of increased Russian aggression, which corresponds with a US shift to prioritizing East Asia in its foreign and security policy. While the Central and Eastern European NATO members generally prefer conventional US deployments, TNW at least keep the United States involved on the continent. In short, the very presence of US nuclear weapons in Europe contributes to alliance management because their existence compels transatlantic consultation.

Implications and conclusion

This article has examined the role of US TNW in Europe, focusing on their alliance-management functions rather than their deterrence or reassurance capabilities. While some allies may see an enduring security value in these weapons, the prevailing view suggests that NATO's current TNW mission is militarily suboptimal. To explain the persistence of NATO's nuclear status quo in the face of such evidence, this article has highlighted three mechanisms through which US TNW in Europe may serve alliance-management functions. First, they facilitate *nuclear deflection*, or the practice of directing attention away from divisive issues related to conventional burden sharing.

¹¹⁴ Horovitz, "Why Do They Want American Nukes?"; Lanoszka, "Poland in a Time of Geopolitical Flux"; Zachary Selden, "Balancing against or Balancing with? The Spectrum of Alignment and the Endurance of American Hegemony," *Security Studies*, Vol. 22, No. 2 (2013), pp. 330–64, <<https://doi.org/10.1080/09636412.2013.786918>>; Kristen Williams, Steven Lobell, and Jesse Neal, *Beyond Great Powers and Hegemons: Why Secondary States Support, Follow, or Challenge* (Redwood City, CA: Stanford University Press, 2012).

¹¹⁵ Ronald D. Asmus and Alexandr Vondra, "The Origins of Atlanticism in Central and Eastern Europe," *Cambridge Review of International Affairs*, Vol. 18, No. 2 (2005), pp. 203–16, <<https://doi.org/10.1080/09557570500164439>>; Andris Banka, "The Roots and Resilience of Pro-Americanism in the Baltics," *Washington Quarterly*, Vol. 45, No. 2 (2022), pp. 169–83, <<https://doi.org/10.1080/0163660X.2022.2090757>>; Horovitz, "Why Do They Want American Nukes?"

¹¹⁶ Lukas Paul Schmelter, "How Germany Lost the Trust of Eastern Europe," *Internationale Politik Quarterly*, January 4, 2023, <<https://ip-quarterly.com/en/how-germany-lost-trust-eastern-europe>>; Marlena Drgyiel-Bielinska, "Central and Eastern Europe in France's Foreign Policy," in Ryszard Zieba, ed., *Politics and Security of Central and Eastern Europe* (Cham, Switzerland: Springer, 2023), pp. 317–33; Clea Caulcutt, "Macron Extends Olive Branch to Eastern Europeans," *Politico*, May 31, 2023, <<https://www.politico.eu/article/emmanuel-macron-ukraine-volodymyr-zelensky-should-get-strong-and-tangible-security-guarantees>>.

¹¹⁷ Horovitz, "Why Do They Want American Nukes?"; Andris Banka, "Super Atlanticist in the EU? Vilnius between Washington and Brussels," *European Foreign Affairs Review*, Vol. 28, No. 2 (2023), pp. 165–84, <<https://doi.org/10.5464/eerr2023009>>.

For all participating nuclear host nations, involvement in TNW deployments seemingly enables them to attain a specific rank within the alliance which they believe would otherwise be more costly or difficult to achieve. Second, US TNW provide a means of *nuclear legitimation*, wherein nuclear deterrence is more accepted as the basis for the alliance's defense strategy. By actively involving some allies in developing NATO's nuclear strategy and physically stationing nuclear gravity bombs in Europe, the TNW mission limits opposition to nuclear deterrence within the alliance. Third, US TNW in Europe establish transatlantic linkage because they compel *nuclear consultations* about these weapons. Such nuclear consultations, in turn, create avenues for the institutionalization of transatlantic dialogues on a variety of other matters. Put differently, the physical presence of US military equipment and personnel in Europe helps ensure American involvement on the continent.

Thinking about TNW as tools of alliance management has a number of implications and opens up several avenues for further scholarly and policy research. Any reconsideration of NATO's TNW posture would result from a negotiation process primarily involving the United States and individual host nations, with input from the entire alliance. As analysts seek to inform such processes, they ought to broaden the way they usually speak about the costs, risks, and benefits of NATO's TNW mission. Admittedly, the task of determining whether NATO allies genuinely care about these alliance-management functions or whether they simply invoke them to rationalize the status quo is a difficult one. Allies may hesitate to engage in tough discussions about NATO's future strategy and prefer to avoid potentially difficult conversations, producing some level of policy inertia. But even if these three alliance-management functions are merely cosmetic and do not reflect genuine European influence over US and NATO (nuclear) policy, opponents of the TNW mission still must contend with them. Indeed, opponents of the status quo would benefit from proposing alternatives that could provide or replace the alliance-management functions of foreign nuclear deployments. Future scholarly research into specific country cases may elucidate how individual allies weigh the costs, risks, and benefits of potential TNW withdrawal. This research should include evaluating alternatives such as ballistic-missile-defense installations and other options discussed below, or a fundamental reconsideration of NATO strategy.¹¹⁸

Furthermore, scholars should investigate the norms and assumptions involved in arguments about ranks and roles within the alliance.¹¹⁹ Doing so would raise a variety of important research questions with relevance for policy. What insights do the experiences of states that do not host TNW offer that may generalize to other forums or settings beyond the Small Group, where countries can assert their rank or influence? If they no longer host nuclear weapons, could former B61 host states compensate for any perceived loss of status by increasing their contributions to NATO's non-nuclear missions and capabilities? What assumptions exist about the budgetary implications of such a potential shift? According to one high-ranking

¹¹⁸ On the potential reconsideration of NATO strategy, see Lukas Mengelkamp, Alexander Graef, and Ulrich Kühn, "A Confidence-Building Defense for NATO," *War on the Rocks*, June 27, 2022, <<https://warontherocks.com/2022/06/a-confidence-building-defense-for-nato>>.

¹¹⁹ See, for instance, Paolo Foradori, "Reluctant Disarmer: Italy's Ambivalent Attitude toward NATO's Nuclear Weapons Policy," *European Security*, Vol. 23, No. 1 (2014), pp. 31–44, <<https://doi.org/10.1080/09662839.2013.851674>>.

Belgian military official, the US deployments in Belgium are essentially cost free for that country.¹²⁰ But even if security-studies scholars and policy makers often argue that nuclear weapons offer a bigger “bang for the buck” than conventional weapons, this does not mean that NATO’s TNW mission is without significant financial implications. Although the United States does indeed finance the weapons themselves, significant supporting infrastructure is required for transportation: storage vaults and protective shelters; custodial teams; specialized delivery vehicles and associated facilities; early-warning radar and reconnaissance to monitor enemy movements; and systems for safety, security, and logistics.¹²¹ In a 2014 hearing before the House Armed Services Committee, US Deputy Assistant of Defense for Nuclear and Missile Defense Policy Elaine Bunn stated that “NATO basing nations provide substantial financial support to the nuclear mission at NATO’s main operating bases.”¹²² In addition, NATO’s TNW mission has implications for doctrine and training and thus consumes time and resources that trade off with conventional-force readiness.¹²³ More research is therefore needed to comprehensively assess the cost of these missions and how they affect other alliance activities.

There is also the question of societal costs of potential increases in conventional forces, were the US TNW to be withdrawn from Europe. Here, opponents of the TNW mission could argue that investing more in non-nuclear military resources would help the alliance reduce its reliance on nuclear weapons and attenuate nuclear risks. The nuclear-legitimation function highlights the importance of “framing” in discussing issues related to NATO describing itself as a “nuclear alliance.” Ending the TNW mission would not equate to NATO becoming denuclearized, as France, the United Kingdom, and the United States would all continue to maintain their strategic nuclear forces.¹²⁴ Nor would TNW withdrawal from Europe automatically imply that NATO would cease its existing practices of information sharing and consultation on nuclear issues. The current US commitments in East Asia demonstrate that Washington is involved in sharing nuclear information in contexts that do not entail its allies hosting nuclear weapons.¹²⁵ Concepts such as strategic narratives, processes of nuclear devaluation, and what Ronald R. Krebs and Patrick Thaddeus Jackson call “coercive constructivism” can offer further insights into the relationship between nuclear legitimation and foreign nuclear deployments.¹²⁶

¹²⁰ *De Morgen*, “Topmilitair.”

¹²¹ Fuhmann and Sechser, “Signaling Alliance Commitments”; Stephen I. Schwartz, *Atomic Audit: The Costs and Consequences of US Nuclear Weapons since 1940* (Washington, DC: Brookings Institution Press, 1998).

¹²² Elaine Bunn, prepared statement for the House Armed Services Committee, “Fiscal Year 2015 Budget Request for Atomic Energy Defense Activities and Nuclear Forces Programs,” 113th Cong., 2nd sess., April 8, 2014, <<http://govinfo.gov/content/pkg/CHRG-113hhrg88452/html/CHRG-113hhrg88452.htm>>.

¹²³ Kristin Ven Bruusgaard, “Russian Nuclear Strategy and Conventional Inferiority,” *Journal of Strategic Studies*, Vol. 44, No. 1 (2021), pp. 3–35, <<https://doi.org/10.1080/01402390.2020.1818070>>; Christopher J. Watterson, “Nuclear Weapons and Limited War: A Return to the Nuclear Battlefield?” *Comparative Strategy*, Vol. 39, No. 1 (2020), pp. 18–28, <<https://doi.org/10.1080/01495933.2020.1702341>>.

¹²⁴ NATO, “Strategic Concept,” p. 8; see also Stéfanie von Hlatky, “What, if Anything, Will France’s Reintegration Imply for the Alliance Debate on Nuclear Weapons?” *European Security*, Vol. 19, No. 1 (2010), pp. 79–96, <<https://doi.org/10.1080/09662839.2009.498420>>.

¹²⁵ Karl-Heinz Kamp and Robertus Remkes, “Options for NATO Nuclear Sharing Arrangements,” in Steve Andreasen and Isabelle Williams, eds., “Reducing Nuclear Risks in Europe: A Framework for Action,” Nuclear Threat Initiative, 2011, pp. 76–95, <https://media.nti.org/pdfs/NTI_Framework_full_report.pdf>.

¹²⁶ Ronald R. Krebs and Patrick Thaddeus Jackson, “Twisting Tongues and Twisting Arms: The Power of Political Rhetoric,” *European Journal of International Relations*, Vol. 13, No. 1 (2007), pp. 35–66, <<https://doi.org/10.1177>>

Additional research is also needed to explore what alternative arrangements could potentially placate concerns about transatlantic-political linkage. For instance, Olivier Thränert and Andrew Futter have identified ballistic-missile defense as a promising option in this regard.¹²⁷ Łukasz Kulesa has hinted at the option of replacing B61 bombs with intermediate-range conventional hypersonic systems.¹²⁸ What are the trade-offs that would be involved in such replacement arrangements, and do other options exist? Scholars have only begun to scratch the surface of these questions, and more research is needed to explore these various options for replacing US TNW.

Importantly, the alliance-management argument also has implications for the proponents of NATO's TNW mission. The nuclear-deflection function, in particular, may create strong incentives not to challenge the nuclear status quo lest attention be drawn to more controversial topics related to burden sharing. Hence, this function may also complicate efforts to update or upgrade the TNW mission. Just as the nuclear-deflection argument complicates efforts to withdraw existing weapons, it also presents challenges for those seeking to enlarge the mission to include other countries, such as Poland, which has expressed its interest in having US TNW on its soil.¹²⁹ In a broader sense, the alliance-management arguments may compel those whose main concern is to strengthen deterrence and defense against a potential Russian attack to focus on investments in alternative capabilities. Such alternatives may be more likely to garner broad support within the alliance.¹³⁰

Finally, the findings of the article may have relevance for understanding the dynamics in other US security relationships that include a nuclear element. In light of the changing strategic landscape in East Asia, some strategists in the United States and its allies have started thinking about different ways to intensify cooperation on nuclear-weapons policy, often looking to NATO as a model.¹³¹ In fact, the US–South Korea alliance has recently established a “nuclear consultative group” to address matters relevant to nuclear and strategic planning, providing Seoul with insights into US plans for scenarios involving a nuclear exchange on the Korean Peninsula.¹³² Discussions have also emerged

1354066107074284>; Nick Ritchie, “Valuing and Devaluing Nuclear Weapons,” *Contemporary Security Policy*, Vol. 34, No. 1 (2013), pp. 146–73; <<https://doi.org/10.1080/13523260.2013.771040>>.

¹²⁷ Olivier Thränert, “NATO, Missile Defence and Extended Deterrence,” *Survival*, Vol. 51, No. 6 (2009), pp. 63–76, <<https://doi.org/10.1080/00396330903461674>>; Andrew Futter, “NATO, Ballistic Missile Defense and the Future of US Tactical Nuclear Weapons in Europe,” *European Security*, Vol. 20, No. 4 (2011), pp. 547–62, <<https://doi.org/10.1080/09662839.2011.626404>>.

¹²⁸ Łukasz Kulesa, “New Capabilities and Nuclear Deterrence in Europe” in Stephan Frühling and Andrew O’Neil, eds., *Alliances, Nuclear Weapons and Escalation: Managing Deterrence in the 21st Century* (Canberra: ANU Press, 2021), pp. 113–22.

¹²⁹ Wojciech Moskwa and Jenny Leonard, “Poland Says It Approached US About Sharing Nuclear Weapons,” Bloomberg, October 5, 2022, <<https://www.bloomberg.com/news/articles/2022-10-05/poland-is-in-talks-with-us-about-nuclear-weapons-president-says>>.

¹³⁰ For a discussion of options in this regard, see Matthew Evangelista, “A ‘Nuclear Umbrella’ for Ukraine? Precedents and Possibilities for Postwar European Security,” *International Security*, Vol. 48, No. 3 (2024), pp. 7–50, <https://doi.org/10.1162/isec_a_00476>. Scholars are also discussing how advanced conventional weaponry can increasingly take on missions previously assigned to nuclear weapons. See Andrew Futter and Benjamin Zala, “Strategic Non-nuclear Weapons and the Onset of a Third Nuclear Age,” *European Journal of International Security*, Vol. 6, No. 3 (2021), pp. 257–77, <<https://doi.org/10.1017/eis.2021.2>>.

¹³¹ Eric Heginbotham and Richard Samuels, “Vulnerable US Alliances in Northeast Asia: The Nuclear Implications,” *Washington Quarterly*, Vol. 44, No. 1 (2021), pp. 157–75, <<https://doi.org/10.1080/0163660X.2021.1894709>>.

¹³² US Department of Defense, “US, South Korea Unveil Joint Declaration Outlining Steps to Bolster Deterrence,” April 26, 2023, <<https://www.defense.gov/News/News-Stories/Article/Article/3375770/us-south-korea-unveil-joint-declaration-outlining-steps-to-bolster-deterrence/>>.

regarding the potential (re)deployment of US nuclear weapons in East Asia, along with the associated costs, risks, and benefits related to extended deterrence and reassurance.¹³³ However, the implications of such deployments in terms of alliance management, particularly in relation to the three mechanisms outlined in this article, have not received much scholarly and policy attention. How may motivations related to consultations and US anchoring, perceptions of ranking and trade-offs between regional alliances, and legitimization be at play for the various actors involved? It is hoped that this article will encourage scholars to include these elements in discussions about the costs and benefits of redeploying US nuclear weapons to places other than Europe. Because NATO serves as such an influential reference point, it is imperative for researchers to have a comprehensive understanding of the alliance's nuclear-sharing model.

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¹³³ Heginbotham and Samuels, "Vulnerable US Alliances in Northeast Asia"; Byun and Lee, "The Case against Nuclear Sharing in East Asia."