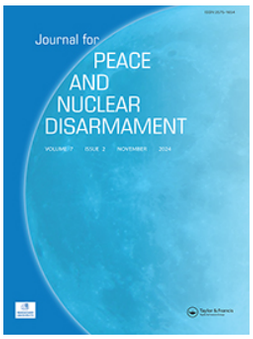

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RESEARCH ARTICLE

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Deemphasizing Nuclear Weapons in Nuclear Deterrence: The Case for Conventional Counterforce

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ABSTRACT

This article advances a strategic theory on the benefits of integrated deterrence for the US alliance network in East Asia. After assessing the role of nuclear weapons in the region and tracing the evolution of US strategic thought on nuclear policy in East Asia, we evaluate the emerging risks and challenges of contemporary regional nuclear policy. We argue that over-reliance on nuclear weapons may exacerbate Sino-American tensions and pose difficulties for ally reassurance, especially against the backdrop of growing partisan politics in the United States. We outline and evaluate an alternative theory of integrated deterrence, which would prioritize the development of conventional counterforce capabilities and decenter nuclear weapons in the deterrence of nuclear threats. We assess this approach in relation to the escalation and entrapment risks posed by the current theory of regional nuclear deterrence. Finally, we reflect on the implications of US nuclear strategy in a changing regional nuclear environment.

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Introduction

Nuclear weapons have been an element of the United States's alliance network in East Asia since the early Cold War. They have been employed as tools for deterring aggression as well as a means through which to reassure regional allies. Nuclear threats featured during the Korean War, and, to a lesser extent, the Vietnam War. Throughout the Cold War, forward-deployed US nuclear weapons strengthened US bilateral alliances with key partners such as South Korea, Taiwan, Japan, and the Philippines. By the end of the Cold War, these weapons had been withdrawn, and the intensity of regional nuclear politics was at its nadir. But the position of nuclear weapons in US regional defense policy has once more been elevated.

This is due, in large part, to growing threats from China and North Korea. Both countries now pose major challenges to US interests and allies in the region. Both adversaries are rapidly expanding their nuclear arsenals and their nuclear delivery systems. Pentagon reports indicate China could obtain 1,500 operational nuclear

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warheads by 2035, although these estimates have been contested (US Deptartment of Defense 2023). Meanwhile, cooperation between China, North Korea, and Russia grows. New reports, for example, suggest North Korea has sent forces and nuclear-capable missiles to aid in Russia's war against Ukraine, which could improve its warfighting capabilities in a conflict on the Korean Peninsula (Choe 2024). Russia and China have expanded their joint exercises, with Russia even proposing a trilateral exercise involving North Korean forces (Yonhap 2023).

Against this backdrop, nuclear weapons are becoming an increasingly important feature of US alliances and partnerships in East Asia. This is especially true in the context of the US-ROK alliance, where Washington has utilized a variety of nuclear systems to reaffirm the credibility of its extended nuclear deterrence guarantee. In 2023, for example, an American nuclear ballistic missile submarine conducted a port visit in Korea for the first time in 40 years, a nuclear-capable B-52H landed in Korea for the first time in alliance history, and South Korean officials were invited to observe the test firing of an American Minuteman III missile (White House 2023a). These signals were matched by institutional developments, with the United States establishing a formal Nuclear Consultative Group with South Korea (White House 2023b). Washington is adopting a similar, if less intense, approach to Japan. In January of 2025, the United States published a new set of guidelines to better coordinate and plan nuclear operations with Tokyo (Arms Control Association 2025). This expanded cooperation between the United States and its allies on nuclear planning – alongside greater security cooperation on nuclear issues among US regional allies – has foregrounded nuclear deterrence and built on the existing conventional security partnerships the United States maintains in the region. Yet, the uncritical prioritization of nuclear weapons for both deterrence and reassurance objectives creates significant risks for US foreign policy.

First, this policy may have detrimental second-order effects. US nuclear policy does not occur in a vacuum. As the US emphasis on nuclear deterrence grows – and as further modernization of the US nuclear arsenal is considered – US adversaries re-evaluate their own nuclear security. For example, US reliance on nuclear deterrence may serve to further nuclear modernization in China, as Beijing seeks to ensure its nuclear arsenal is secure against a US nuclear first strike.

Second, the entangled nature of nuclear and conventional systems in the region, coupled with the different perspectives on nuclear doctrine held by the United States and China, risks precipitating unwanted escalatory dynamics in the event of a conflict. For example, the increasing reliance on dual-capable systems (including in China, North Korea, and Russia) raises greater possibilities for strategic miscalculation. Moreover, as China and North Korea strengthen their positions relative to US regional nuclear capabilities, their enhanced ability to leverage mutually assured destruction may encourage greater adventurism below the threshold for nuclear use. Even if this behavior does not transpire, experience in Cold War Europe suggests that allies might fear such developments and grow increasingly concerned about strategic decoupling. As British strategists fretted in the late 1950s, "in conditions of nuclear sufficiency [such that an adversary could threaten nuclear damage against the US], the United States would be immeasurably more reluctant to use nuclear weapons, except in self defense" ("Confidential Annex To C.O.S. 58 77th Meeting," 1958). A nuclear-focused strategy

thus threatens to undermine efforts at allied reassurance, even if Chinese behavior does not change.

Finally, an overreliance on nuclear weapons may also be disadvantageous from the perspective of ally reassurance. This occurs for two reasons. First, allies who receive the message that they cannot be secure without control over nuclear threats may be more likely to consider nuclear proliferation. After all, if only nuclear weapons can deter nuclear weapons, why would allies outsource this function to a United States whose commitment to its allies around the world is increasingly subject to the precarious winds of its volatile electoral politics? Second, over-reliance on nuclear weapons may be undesirable for US allies. In its ideal form, integrated deterrence allows militaries the flexibility to prioritize the use of conventional assets to deter nuclear risks, while nuclear threats remain in the background. This approach works well in extended deterrence settings. Allies can invest in their conventional forces and enhance interoperability to strengthen their primary source of deterrence, while relying on the US nuclear arsenal as a secondary line of defense. This view on nuclear deterrence can enhance nuclear security, while communicating the unacceptability of nuclear use and reducing the possibility of nuclear miscalculation. In contrast, strategies of nuclear deterrence that over-emphasize the necessity of nuclear threats to dissuade adversary nuclear use ultimately make the risk of nuclear employment higher.

Although over-prioritizing the role of nuclear weapons in East Asia's security is ill-advised, unilaterally eliminating nuclear weapons from the US alliance system at this time would be both infeasible and dangerous. This is both because the bevy of nuclear-armed regional actors makes arms control efforts difficult and because a complete end to American extended nuclear deterrence is likely to embolden US adversaries and frighten regional allies and partners. Moreover, the complete removal of nuclear security guarantees would most likely raise interest among regional allies in acquiring nuclear weapons of their own (Lanoszka 2018).

Yet nuclear guarantees are far from a panacea for regional security problems. In this article, we introduce a strategic alternative to the nuclear status quo. We argue that the United States would likely derive important advantages in the region from shifting away from a nuclear-focused approach to deterrence and reassurance and instead moving towards a more integrated approach, one primarily built around conventional counter-force capabilities that operate under the shadow of extended nuclear deterrence.

While this strategy has its challenges, we contend that this approach is the one best suited to resolving the conflicting challenges that accompany deterrence and reassurance. Allies want nuclear security guarantees, but they also fear being entrapped in nuclear conflicts and doubt the credibility of a purely nuclear deterrence strategy. Similarly, nuclear weapons may deter adversaries in certain scenarios, but they may also incentivize nuclear arms racing and, without proper conventional adjutants, encourage lower-level forms of aggression. By emphasizing the role of conventional weapons in its regional security framework – while retaining a nuclear force capable of deterring strategic nuclear exchanges – the United States can more effectively address these challenging security tradeoffs and deter aggression against its allies and partners.

The remainder of the article develops a strategic argument for integrated deterrence in four sections. The first section briefly details the history of nuclear weapons in America's East Asian security network, discussing how the United States has conceptualized nuclear

weapons within its broader regional security strategy and how these views have evolved across time. The second section then discusses the emerging risks and challenges that accompany Washington's regional nuclear policies. This section considers how these weapons exacerbate Sino-American tensions and undermine crisis stability. It also discusses how a heavy-handed focus on nuclear weapons may create entrapment concerns among US allies and partners that could inadvertently hamper nonproliferation efforts. The third section then discusses an alternative strategy, which would prioritize conventional counterforce systems as a partial substitute for reliance on nuclear weapons. This third section considers the advantages of this approach in light of the risks identified in section two of this paper. The final section offers a summary of our argument as well as a broader reflection on the possible evolution of the nuclear environment in East Asia.

Nuclear Weapons in America's East Asian Security Network

Nuclear weapons have played a role in America's Asian alliance system since the very beginning of the Cold War. Although the United States and its regional partners primarily cooperated on conventional security issues, American nuclear interests – such as deterring the Soviet and Chinese nuclear arsenals – were critical to the structure of regional politics. Moreover, US nuclear weapons were, on occasion, directly leveraged in regional crises and were ultimately deployed to the region for much of the Cold War to serve both deterrence and ally reassurance purposes.

During the Korean War, for example, Douglas MacArthur lobbied aggressively for extending military operations into China, including through the employment of nuclear weapons against Chinese industrial centers. This strategy was ultimately rejected by the Truman administration, but it nevertheless spooked allies who feared that such an action might escalate to full-scale conflict with the Soviets. Indeed, the British were so concerned that Prime Minister Attlee flew to Washington to confront Truman and demand that nuclear use not occur without prior consultation with London (Crane 2000, 77).

Despite the entrapment concerns voiced by some American partners, nuclear weapons continued to be central to America's regional security policy. President Eisenhower, for example, threatened nuclear use during the 1955 Taiwan Strait Crisis as part of his efforts to compel Chinese forces to back down (Chang 1988). But the United States also continued to grapple with its allies' wariness regarding American nuclear posturing. A National Intelligence Estimate from the same year warned that, were the United States to detonate a nuclear device in anger, "The [Japanese] Government would probably attempt to steer a more neutral course" (Lanoszka 2018). Eisenhower went so far as to acknowledge that South Korea and Taiwan "do not wish to be defended by nuclear weapons. They all regard these weapons as essentially offensive in character, and our allies are absolutely scared to death that we will use such weapons" (Lanoszka 2018). Anti-nuclear sentiments – in Japan, New Zealand, and elsewhere – served as constraints on US nuclear strategy (Berger 2014; Pugh 1989).

As the Cold War progressed, the United States confronted fewer regional crises in which it sought to directly threaten nuclear use to compel adversaries to change their behavior, but it continued to rely heavily on nuclear weapons as a tool of both deterrence and ally reassurance. For example, China's acquisition of nuclear weapons escalated allies' demands for credible protection from Washington. Japanese leadership sought

repeated assurances of the credibility of American extended nuclear deterrence in the wake of China's acquisition of nuclear weapons in the mid-1960s. A 15 November 1965 meeting between Japanese Prime Minister Sato and US President Johnson captures this sentiment well:

> At present Japan is secure under the U.S.-Japan Security Treaty, which provides that the United States will defend Japan against external attack. However, Communist China is developing nuclear weapons and Japan may soon be threatened by a nuclear attack. More than two years ago, the President assured the Prime Minister that the United States would live up to her commitment to defend Japan "against any form of attack." He said he wished to ask the President to reconfirm this assurance at this time because of the concern expressed by the Emperor and in view of the discussions on the status of Okinawa. (Roehrig 2017, 43)[1]

Policymakers in Washington in part sought to assuage these kinds of concerns through the forward deployment of nuclear weapons in theater. This was conceptualized as a means of credibly demonstrating to regional allies a willingness to defend them against aggression, including through the use of nuclear weapons if necessary.

This was perhaps clearest in the case of the American deployment of nuclear weapons to South Korea, with one 1979 DoD report emphasizing that "theater nuclear forces have a symbolic importance . . . They are the visible evidence of the broader U.S. commitment and of the linkage between our deployed posture and the strategic nuclear forces" (Roehrig 2017, 60). The United States stationed nuclear weapons in the Philippines (1957–1977), South Korea (1958–1991), and Taiwan (1958–1974).[2] While the United States did not forward-deploy nuclear weapons on sovereign Japanese territory, it did deploy nuclear weapons to US-governed Okinawa until the island's reversion to Japanese administration in 1972 (Avey 2018).

Forward-deployed nuclear weapons created challenges for military planners. In the case of Korea, for example, their planned use along the DMZ meant that Seoul would likely suffer radiological effects from close-proximity detonations. Moreover, because North Korea borders both China and Russia, there were concerns that nuclear use might trigger a response from one or both of these nuclear-armed states (Roehrig 2017, 60–61). Consequently, as the Cold War came to a close, the United States opted to entirely remove theater nuclear forces from Korean soil, following an earlier 1970s decision to remove nuclear weapons from other Asian allies' territory. In addition, it was hoped that this withdrawal of nuclear weapons from the Korean Peninsula would assuage North Korean concerns and thus reduce the probability that Pyongyang would seek to acquire nuclear weapons of its own (Roehrig 2017, 61–62).

While the deemphasis of nuclear weapons in American security strategy continued for a decade, North Korea's nuclear proliferation saw greater demands in Seoul for nuclear reassurance from the United States. At the same time, arms control agreements such as START and New START highlighted a turn away from nuclear weapons in US strategy,

[1]The Japanese readout differs slightly from the American version quoted here.

[2]On US nuclear deployments in the Asia-Pacific region, see Avey (2018, 97). A secondary goal for these deployments may have been to reduce regional interest in proliferation. There is some evidence that nuclear security guarantees do so (for a discussion of this literature, see Reiter 2014). Other scholars have contributed the roll-back of the South Korean and Taiwanese nuclear weapons programs to economic policies, including sanctions (see Gavin 2015, 29–31] and; Miller 2014). Japanese nonproliferation has more often been attributed to historical and structural factors (see Paul 2000).

although Washington was always careful to ensure its nuclear forces remained robust and effective.

Today, nuclear deterrence is an important component of US-South Korea security cooperation, and Washington has once more sought to rely on nuclear weapons as its major tool of regional allied reassurance. This became especially clear in January of 2023, when South Korean President Yoon Suk-yeol floated the idea of South Korea potentially acquiring sovereign nuclear weapons capabilities were North Korea to continue to grow its nuclear forces. Yoon also acknowledged, however, that a return of US nuclear weapons to the Korean Peninsula might be an acceptable substitute (Yoon 2023). In the short term, it seems implausible that South Korea would acquire nuclear weapons, both due to the political backlash it would engender and due to the country's lack of fissile material production capacity (Panda and Volpe 2024). Nevertheless, Yoon sought to exploit the threat of proliferation to wrest concessions from the United States, and his strategy ultimately produced the Washington Declaration. This joint statement confirmed the creation of a new Nuclear Consultative Group (NCG) in which nuclear planning could be discussed in greater detail and in which "the Alliance will work to enable joint execution and planning for ROK conventional support to U.S. nuclear operations in a contingency" (White House 2023b). The NCG thus places nuclear cooperation as a keystone of the US-South Korean alliance and works to cement the credibility of US extended nuclear deterrence, with one objective of the policy being to stymie Seoul's growing interest in nuclear proliferation.

The United States has sought to maintain a competitive nuclear arsenal, an effort perhaps best exemplified by the large-scale nuclear modernization program undertaken under the Obama administration to upgrade the three legs of the American nuclear triad through the introduction of the B-21 strategic bomber, Sentinel ICBM, and Columbia-class SSBN (Ewing 2016). These efforts were expanded under the first Trump administration, which initiated plans to develop new delivery systems and warhead designs. These took the form of a nuclear sea-launched cruise missile (SLCM-N) and a corresponding low-yield warhead to be fitted inside, as well as a low-yield warhead for use on the Trident D5 submarine-launched ballistic missile (Fink 2024). These modernization programs, underway today, were intended to keep the US nuclear arsenal competitive and fit-for-purpose to ensure credible extended deterrence in both Europe and the Asia-Pacific region.

Historically, contestation with the Soviet Union, then Russia, was the major driver of US developments in its nuclear strategy and posture. Nuclear threats emanating from the Asia-Pacific region have been a secondary focus. This, however, is changing. US nuclear strategy now identifies China as a "near-peer" competitor. Growing concern about the "two peer problem," and a coordinated, concurrent, or sequential set of nuclear threats from both China and Russia has led key stakeholders to argue for a further overhaul of US nuclear capabilities and/or strategy (Center for Global Security Research 2023; Desmaele 2024; Talmadge 2022).

The Risks of Overreliance on Nuclear Weapons

As we reach the midpoint of the 2020s, nuclear weapons are playing an increasing role in US security policy in East Asia. While it is likely unavoidable that nuclear weapons will

continue to be the bedrock of regional deterrence, an overreliance on nuclear weapons for deterrence and signaling creates at least three distinct risks: it exacerbates Chinese security concerns, potentially contributing to further nuclear arsenal expansion; it increases the dangers of crisis instability; and it has the potential to encourage South Korean proliferation efforts over the long term.

Sino-American Tensions

Perhaps the clearest risk is the inadvertent reification of the nascent Sino-American nuclear arms race. For much of its history, China has been content to maintain a policy of minimal deterrence, possessing just enough capacity to ensure its ability to retaliate against nuclear aggression against its territory. Indeed, even into the mid-2010s, many analysts believed that China's nuclear force structure and posture would see little change (F. S. Cunningham and Fravel 2015).

Yet, in the past few years, China's arsenal has seen rapid expansion, including, most notably, a vast expansion of China's missile silos. The exact drivers of these changes are not fully understood, but they are at least partly the result of domestic political factors and status concerns rather than purely external developments. That is, China's quest for parity with the US nuclear arsenal may be partially the result of a desire to be recognized both domestically and internationally as a military power "on par" with Washington (Seitz 2024).

At the same time, many of the observed changes in China's arsenal seem to be designed to increase arsenal survivability and to bolster deterrence vis-à-vis the United States (D. C. Logan and Saunders 2023). For example, China has developed or modernized a range of road-mobile missile systems, including the DF-21 and DF-31AG, carried on an improved transporter erector launcher. It has also begun MIRVing many of its systems, which better ensures their ability to penetrate missile defense systems (Talmadge 2019). This focus on survivability suggests that China's investments in its nuclear arsenal may be at least partly strategic.

Until recently, China's nuclear forces were highly vulnerable to an American first strike. Indeed, estimates from only a few years ago suggested that China was likely to only successfully be able to ensure a retaliatory force of 1–3 warheads hit targets in the continental United States (Wu 2020). The modernization of US nuclear systems, such as the development of smart fuses that improve the accuracy of American nuclear warheads, coupled with recent improvements in remote sensing technology and data processing, has created severe challenges to Chinese nuclear survivability that Beijing is now working to rectify (Lieber and Press 2017).

China could be investing in survivability because it is worried about US aggression and wants to bolster its "minimum deterrence" posture. Or, it could simply see stronger deterrence as providing greater maneuverability for various regional objectives – from influence operations to expansionist missions – by raising the costs of US interference. Put another way, China has repeatedly expressed concerns that the United States uses nuclear deterrence to engage in coercion, limiting China's ability to operate as it pleases in its regional sphere of influence. If China's own deterrence were strengthened, Beijing might believe that it could more successfully dissuade the United States from undertaking

actions Beijing views as injurious to China's regional interests, such as American freedom of navigation operations in the South China Sea or even, potentially, support for Taiwan.

But strengthening US nuclear deterrence is unlikely to change China's objectives. Instead, it may motivate further nuclear arsenal expansions or solidify beliefs in US reliance on nuclear coercion. China's concerns in this realm are underscored by changes in the US Nuclear Posture Review in the first Trump and then Biden administrations, which prioritized China as a nuclear adversary (Kimball 2023). Ongoing discussions in the United States about whether there is a need to modernize US nuclear capabilities in order to better deter, destroy, or degrade China's nuclear capabilities may further create the perception that augmentation of China's nuclear forces is necessary (Lawrence Livermore Laboratory 2023). As a result, ongoing political arguments over whether to diversify or even to expand the US nuclear arsenal feed Chinese fears about its ability to successfully accomplish "minimum deterrence" goals vis-à-vis the United States or may even motivate those who wish to expand the objectives of China's nuclear mission beyond minimum deterrence. The unfortunate result could be an arms race—one that could be difficult to stymie given the major challenges for arms control between the two countries.

After all, many of the arms control proposals that would be most desirable for the United States – such as implementing a nuclear freeze or exchanging limited arsenal reductions for a Chinese freeze – would either codify the asymmetric status quo or still leave Beijing with a far weaker arsenal than the United States (Kroenig and Massa 2021). Given China's concerns about US nuclear coercion, these options are unlikely to be attractive to Beijing. Exacerbating the difficulty of finding a suitable, yet non-asymmetric arrangement is that China's history of foreign subjugation sharpens concerns about treaty arrangements that would disadvantage Beijing at the hands of more powerful states (Frieman 1996). China's deep-seated cynicism about the imposition of unequal treaties may contribute to its reluctance to accept any arrangements that leave the United States with an insurmountable nuclear advantage. For example, Liu Pengyu, a spokesperson for China's Washington embassy, explained: "China's nuclear strength is far from being on par with the United States and Russia. The time is not ready yet for [Beijing] to join the nuclear arms control negotiations proposed by some" (Soloman 2023).

Even if these pressing geopolitical tensions could be surmounted, designing arms control verification that would be suitable to both parties would be difficult. Historically, the US approach to arms control has emphasized a bottom-up approach to trust-building, essentially taking the view that consistent compliance with arms control would create, over time, greater mutual trust that would enable further cooperation. China's approach instead runs counter to this view. Its top-down interpretation of trust instead views a baseline of trust as a strategic necessity prior to any cooperative efforts (Zhao 2022). The result is that China has been deeply reluctant to engage in verifiable arms-control, instead viewing US interest in arms control as an attempt to dominate security politics and undermine China's nuclear deterrent. As Wendy Frieman noted in a 1996 study of China's approach to arms control, "the mere access to information about the military in a society such as China, where virtually all important information is considered a state secret could be seen as a threat and as a potential compromise of national security" (Frieman 1996). Newer scholarship suggests this sentiment widely

persists (Zhao 2022). Today, China's military has what Kühn and Williams (2024, 144) call "a culture of opacity," which limits openness to engagement with foreign militaries and reduces interest in transparency. This wariness is heightened in the arms control realm. As Henrick Hiim and Magnus Trøan (2022, 88) write, "Chinese strategists increasingly see arms control as an arena for zero-sum military and political struggle," thus leaving little room for compromise.

Inflexibility on arms control means that if the United States is to slow down China's nuclear expansion, it must model this behavior itself. Only by assuring China can the United States change the emerging picture of regional nuclear security. Moreover, the nuclear character of US alliances plays a major role in China's decision-making. Beijing has concerns about the survivability of its nuclear forces as other regional powers, such as South Korea and Japan, improve their precision-strike and other capabilities, because of concerns that these capabilities will be integrated into nuclear missions (Zhao 2020). China's strong reaction to the AUKUS deal exemplifies these concerns. Similarly, the growing sophistication of South Korean conventional counterforce systems has generated anxiety within the PLARF. As noted above, in the wake of the Washington Declaration, Seoul and Washington have announced closer coordination between their nuclear and conventional capabilities, which has fueled fears in China that some Korean capabilities might play a supporting role in a potential US nuclear strike. For example, Senior Colonel Shao Yongling, a PLA Rocket Force officer and professor at the Rocket Force Command College, noted that "[South Korea's long-range cruise missile] has far exceeded what is needed to deter North Korea, as missiles with 500 km to 1000 km range are sufficient . . . If positioned properly, [the missile] could cover many regions in China in its range" (Chen 2010). This suggests that greater, or more visible, cooperation on nuclear issues – from planning to exercises – between the United States and its regional allies could further drive Chinese insecurities.

Crisis Instability

The second major risk is that a growing reliance on nuclear weapons for regional signaling might undermine crisis stability by leading to fears in Beijing that Washington is working to lower the nuclear threshold. In the wake of the 2018 Nuclear Posture Review that introduced the requirement for SLCM-N and low-yield Trident warheads, Chinese scholars and analysts voiced concern that Washington had "lowered the threshold for nuclear first use" and even raised the possibility that "the United States would use its nuclear weapons to respond to nonnuclear Chinese aggressions" (Hiim, Fravel, and Trøan 2023). This anecdote is one of many, but it shows how posture alone has the potential to muddy the water around motives. Of course, were the United States to employ even low-yield nuclear weapons during a conflict, the potential for miscalculation would rise appreciably.

These escalation risks are uniquely sharp in the Sino-American context due to the divergent views on nuclear use held by Washington and Beijing. While the former conceptualizes nuclear conflict along an escalatory spectrum, believing that nuclear use can be controlled and limited, the latter views nuclear use in a binary way. In Beijing's eyes, inadvertent nuclear use is easy to avoid but, were it to occur, almost impossible to control. As F. S. Cunningham and Fravel (2019, 105) summarize, "the

United States and China hold opposing beliefs about escalation above and below the nuclear threshold that may also contribute to instability." Because China views inadvertent escalation above the nuclear threshold as exceedingly unlikely, Beijing is likely to underestimate the danger of American nuclear use and thus precipitate a large-scale crisis over, for example, Taiwan, under the false belief that nuclear escalation will not happen. But the United States does not view nuclear weapons in such a binary way and indeed considers them a core part of its deterrent and warfighting force in East Asia. For example, during the Cold War, the United States developed nuclear warfighting concepts along the escalation ladder. And as noted above, the last Trump administration's Nuclear Posture Review advocated for a range of lower yield nuclear options and delivery systems, optimized for non-strategic warfare. Indeed, the current Undersecretary of Defense for Policy, Elbridge Colby (2018, 31), has stated that Washington "may have to rely on its nuclear forces to halt Chinese conventional forces."

Chinese mirror-imaging thus entails significant risk, as it is apt to lead to deterrence failures that ultimately precipitate the employment of nuclear weapons. Similarly, initial nuclear use by the United States may be easily misinterpreted in Beijing. A nuclear warning shot or employment of tactical nuclear weapons against Chinese conventional forces may be intended by Washington to reflect a limited escalatory step. In China's eyes, however, this would represent a shift from conventional to nuclear war and might be (mis)perceived as a prelude to a general nuclear exchange.

Fundamentally, this danger derives from the central role that nuclear weapons play in the United States's regional military policy. By making these weapons the cornerstone of regional deterrence, the United States may face situations in which it would decide to use these weapons in a limited way either to assure regional allies of its nuclear resolve or due to a lack of appropriate conventional substitutes. Yet, Beijing does not conceptualize nuclear weapons as a warfighting instrument but rather as an existential deterrent, and thus even limited nuclear use by American forces is likely to be misunderstood by Beijing and thus catalyze rapid and massive escalation.

Ally Reassurance

In extended deterrence contexts, the role of nuclear weapons is twofold: to deter adversaries and to reassure allies. US over-reliance on nuclear weapons may harm deterrence by raising adversaries' incentives for nuclear expansion and by increasing crisis instability. Furthermore, over-reliance on nuclear weapons may also have adverse effects on alliance policy.

Alliances face the concomitant and countervailing challenges of entrapment and abandonment. States want to ensure that their allies honor their treaty obligations in the event of conflict, but they also want to ensure that their allies do not drag them into costly, unnecessary wars (Snyder 1984). This is true of both nuclear and non-nuclear alliances, but these concerns are especially acute in the case of America's East Asian alliance network, where the United States is the only actor in the alliance system with sovereign control over nuclear weapons. Consequently, US allies have less control and influence over US nuclear use than they do over the use of conventional systems. Asian allies might be more closely integrated into the intelligence chain, strategic planning, and

operation of conventional equipment, whereas these processes are largely opaque to allies when it comes to extended nuclear deterrence.

This problem is partly structural, given the role of nuclear weapons within the US East Asian alliance network, but it can be exacerbated by the actions of US leaders. One example is provided by the actions of US President Donald Trump, who engaged in aggressive brinkmanship and unpredictable nuclear posturing vis-à-vis North Korea. These antics frightened Seoul, which feared that the Trump Administration might precipitate a conflict into which South Korea would be drawn. While South Korea's immediate response was to propose a summit between North Korean leader Kim Jong-un and US President Trump in which it might enjoy some influence (Seitz and Talmadge 2020, 38–39), American behavior during this period may also have fed Seoul's desire for nuclear weapons of its own (Herzog and Sukin 2023; Sukin 2020; Sukin 2021). Trump's highly inconsistent comments about North Korea, nuclear weapons, and the (un)importance of US alliances during the 2024 election campaign and first few months of his second presidential term may further worsen these concerns.

As US nuclear policy becomes hostage to the whims of an increasingly partisan and isolationist electorate, US allies start to wonder whether relying on Washington is really so wise. Recent work by Rachel Myrick (2021a) suggests that foreign policy crises are unlikely to foster greater bipartisanship in the United States, as some scholars previously thought. A crisis in East Asia could become highly politicized, offering a platform for isolationists to challenge the value of US alliances in the region. Such contestation domestically could create additional alliance pressures during crises, and significant partisan rancor might forestall decisive US action (Myrick 2021a). Moreover, allies have recently expressed concerns about how this polarization undermines American credibility and produces erratic and unpredictable policy (Myrick 2021b). By taking clear steps to institutionally lock in a conventionally oriented security policy – through the deployment of conventional, rather than nuclear, systems and through the development of contingency plans before a crisis strikes – Washington might better reassure partners in Seoul and Tokyo that any military escalation will remain below the nuclear threshold and be grounded in the pre-existing war plans they helped develop.

Concern about the reliability of the United States as a security partner is not unique to Seoul. Recent research by Lauren Sukin and Woohyeok Seo (2024) in this journal shows evidence of growing nuclear anxiety among multiple US partners and allies in the Asia-Pacific region, with the majority of the public supporting indigenous nuclear proliferation in South Korea, Taiwan, and Indonesia. This work further shows significant concerns in these states – as well as in Japan and Australia – both about the United States abandoning its extended deterrence obligations and about entrapment in US-driven nuclear conflict. The duality of these challenges highlights the impossible Goldilocks problem of nuclear security guarantees: Washington must convince its allies that it would be willing to use its nuclear weapons – without running the risk that it will prematurely decide to do so.

Strategies for Risk Reduction

While nuclear weapons will likely remain an important component of America's alliance system in the Asia-Pacific for the foreseeable future, they need not, and should not,

represent the primary tool for deterring aggression and reassuring allies. Instead, the United States would be better served by executing these missions predominantly through conventional counterforce systems designed to hold adversary forces at risk without crossing the nuclear threshold. In this view, nuclear weapons would remain as a critical backstop to a more integrated approach to deterrence, but nuclear threats would no longer be the primary way through which to dissuade adversaries from using their nuclear assets.

Of course, this strategy has limitations. Highly precise, sophisticated conventional systems can still create escalation pressures (Zhao 2020). In the case of small, vulnerable arsenals such as North Korea's, they can even generate "use it or lose it" pressures (Bowers and Hiim 2020/2021, 33–36). But the risks of conventional options are far lower than those created by wholesale reliance on nuclear weapons, and thus they serve to appreciably reduce the risk of spiraling arms races and inadvertent escalation in the region. In the rest of this section, we discuss how an approach to deterrence that prioritizes conventional counterforce capabilities might work and then consider its benefits and drawbacks relative to a strategy that prioritizes nuclear weapons.

A comprehensive conventional counterforce strategy would involve both the "hardware" and "software" of alliances. That is, the United States would need to cooperate with its allies on improving their capabilities, including precision-strike systems, missile defenses, and submarines. The AUKUS arrangement, particularly Pillar II, is a strong example of the type of defense cooperation that the United States could model for its allies throughout the region. Improving regional allies' access to cutting-edge American defense technologies, coordinating on collaborative procurement and sustainment initiatives to affordably expand conventional forces in the region, and incorporating allied opinions on capability requirements would all represent useful avenues for allied reassurance (Nicastro 2024). Moreover, the expanded deployment of emerging conventional strike systems such as PrSM and SMRF could improve American forces' ability to deliver strategic effects without crossing the nuclear threshold. For a conventional counterforce strategy to work, these allied capabilities would need to be well-integrated with US conventional forces in the region. Moreover, the United States may need to improve its own force posture so that it can adequately target adversaries' regional capabilities and prosecute potential regional crises. While this is within the grasp of the US military today, it is possible that, over time, a truly overwhelming overhaul of adversary forces might demand a reconsideration of whether the United States and its partners are truly able to take on an adversary like China without resorting to nuclear weapons.

Enhanced conventional capabilities should be complemented by substantial efforts to improve cooperation. This could include regular, multiparty exercises focused on conventional operations, the use of existing forums like the Nuclear Consultative Group to prepare conventional plans for deterring and responding to nuclear threats, as well as expanded multilateral cooperation to better integrate resources across multiple allies and partners. At the same time, the goal of adopting a conventional counterforce strategy would be to disentangle nuclear and conventional threats, meaning that efforts to improve conventional warfighting and planning capabilities would need to be complemented by conscious and visible efforts to deemphasize the role of nuclear weapons. This could take the form of arms control or crisis management efforts to improve adversary assurance or transparent commitments to opt for conventional options (such as the

Biden Administration's statements on the likelihood of a conventional response in the event of Russian nuclear use) (Sanger 2024). After all, that threat – to use conventional forces to respond to and deter further Russian nuclear action – seems to have had a successful deterrent effect.

Shifting America's regional deterrence and reassurance strategy to one based on conventional counterforce systems rather than nuclear weapons mitigates the three major challenges outlined above. First, it reduces the pressure on Beijing to rapidly expand and diversify its nuclear arsenal by mitigating the danger of an American nuclear first strike. While it is true that US conventional systems can produce strategic effects against important, but limited, target sets, they cannot reliably hold China's full nuclear arsenal at risk. Moreover, to the degree that conventional systems can hold Chinese nuclear infrastructure at risk, this is primarily limited to China's road-mobile nuclear forces held in garrison, ensuring that China's silo-based missiles would still be able to effectively retaliate. Thus, insofar as China fears the conventional weapons systems of the United States and its allies, it fears their use *in conjunction* with nuclear systems. Conventional systems on their own are not deemed especially threatening, as evidenced by a 2018 PLA report on the matter:

> . . . even for the United States, based on the numbers and types of its strike platforms and munitions, its long-range precision-strike capabilities are still limited. The types and numbers of the US military's deep penetrating munitions are also limited. As a result, as long as (China's) military facilities take appropriate protective measures, they can effectively reduce a powerful enemy's ability to cause damage and can improve their battlefield survivability. (Zhao 2020, 111)

That the real concern is the use of non-nuclear systems to enhance the effectiveness of nuclear weapons is also evidenced by Beijing's opposition to US theater and strategic missile defense systems. China's concern is not that these systems would be able to eliminate its ability to retaliate by themselves. Rather, it is that they could handle the few Chinese warheads that would remain following an American nuclear first strike (Talmadge 2019, 5).

Thus, by taking steps to deemphasize nuclear weapons in America's regional security strategy and to signal to China that Washington is not seeking to lower the nuclear threshold, Beijing will face fewer pressures to rapidly expand and modernize its nuclear arsenal. As small and vulnerable as China's arsenal is compared to those of the United States and Russia, it is more than capable of weathering even a sustained conventional counterforce attack, and thus the criteria for assuring retaliation against conventional threats is much lower. However, US and allied conventional assets would still be backed by the United States' strong nuclear arsenal, such that if nuclear escalation were needed, the United States would retain its upper hand.

A conventional counterforce strategy also improves crisis stability vis-à-vis China. For one, it reduces the risk of limited nuclear use because it seeks to substitute tactical nuclear weapons with conventional systems. The dangers of misperceptions and misunderstandings are therefore lower.

But what of other avenues to inadvertent escalation? Several scholars have worried that even a purely conventional conflict could plausibly spiral into nuclear use due to the degree to which China's conventional and nuclear forces are entangled. Some fear that

the entangled nature of China's command and control infrastructure, for example, means that US attacks designed to degrade China's conventional forces might be misconstrued by Beijing as a prelude to nuclear conflict (Acton 2018). A de-emphasizing of US nuclear weapons may partially reduce the risk of such misconceptions.

This is especially true because many of these fears rest on China viewing conventional strikes, either by the United States or by its regional allies, as a prelude to nuclear use. In particular, the worry is that strikes against early warning radars, air defense sites, and command and control infrastructure would be construed by Beijing as a precursor to nuclear attack by clearing the way for nuclear-armed bombers and by degrading China's ability to respond promptly to a nuclear strike (Cohn et al. 2019). By downgrading nuclear weapons in American regional strategy and instead centering purely conventional operations, Washington and its allies would be better placed to reassure China that these operations were solely in support of conventional objectives and did not represent a preparatory move for a nuclear strike.

Other scholars worry that the dual-use nature of Chinese missile systems – which, in certain cases, can be equipped with either nuclear or conventional warheads – means US forces might inadvertently strike road-mobile nuclear forces while hunting conventional missiles. This would degrade China's retaliatory capability, potentially creating "use it or lose it" pressures that incentivize Beijing to escalate to the nuclear level before its forces are destroyed (Talmadge 2017, 73–74). More recent work by regional experts, however, has tempered these concerns by noting that Chinese strategic communications systems are hardened against conventional attack. Moreover, while it is true that certain road-mobile nuclear systems might be destroyed either deliberately or inadvertently by US forces engaged in a conventional military campaign, China also has silo-based missiles and hardened underground facilities for warhead storage that are highly survivable against even deliberate conventional strikes. Consequently, the odds that strikes on early warning or communications systems precipitate a nuclear response are relatively low (D. Logan 2023, 23–34). Moreover, Chinese conventional and nuclear missile systems are not as heavily collocated as once feared and, for certain systems, are visually distinguishable. This makes discrimination moderately less challenging than escalation pessimists contend (Wu 2021/2022).

Of course, this does not mean that a conventional counterforce strategy is without any danger. In the case of North Korea, for instance, a conventional counterforce strategy conducted by the United States and South Korea could severely degrade, if not outright eliminate, its nuclear arsenal, creating potential escalation pressures. Yet North Korea has consistently focused its concerns on US nuclear assets, and especially the risk of a preemptive or preventive nuclear first strike (Sukin 2022), which would be considerably lower should the United States embrace conventional counterforce. Conventional counterforce approaches also lend themselves to a strategy of deterrence by denial, which aims to dissuade North Korea from embarking upon aggression by providing the United States and South Korea with conventional superiority that would make a North Korean attack more costly and less likely to succeed. This, in turn, dissuades aggression. However, a fine balance is needed to provide adequate assurance to Pyongyang that the United States is not pursuing a strategy of regime change (Sukin 2024).

A conventional counterforce strategy would not only have deterrent benefits – by reducing the risk of arms-racing and improving crisis stability – but could also aid the

United States in strengthening its regional alliances. A conventional counterforce strategy helps to resolve the abandonment-entrapment dilemma. Consider, from Seoul's perspective, the benefits of such a strategy. Conventional counterforce capabilities plausibly offer the potential to so thoroughly degrade North Korean capabilities as to serve a damage limitation role. This should assuage South Korean concerns over abandonment and build confidence that the United States has the material capacity to protect South Korean vital interests even without resorting to nuclear use. In addition, South Korea has itself developed a robust and capable set of counterforce systems, including through the acquisition of the F-35 joint strike fighter and Hyunmoo-3 missile (Bowers and Hiim 2020/2021). Given its sovereign capabilities in this area, South Korea should rest assured that it would have a seat at the table in conventional strike planning in a way that would help ameliorate entrapment concerns. Should conventional counterforce capabilities fail to deter North Korea, Seoul could fall back on US nuclear extended deterrence. This secondary role for US nuclear weapons could alleviate some of the existing, extreme pressure on extended deterrence.

Moreover, an approach that centered conventional counterforce in deterrence could communicate to stakeholders in Seoul that nuclear proliferation is not actually necessary for South Korea to gain security and stability. As Lauren Sukin and Toby Dalton (2021) write, "U.S. over-valuing of nuclear deterrence can spur beliefs among allies that nuclear weapons are a necessary capability." In turn, a renewed focus on how to more effectively deter nuclear threats – not deter *with* nuclear threats – might aid US nonproliferation efforts.

Expanding American conventional counterforce capabilities too quickly or too aggressively could risk adversaries responding in kind through arms buildups of their own. One potential concern is that states such as China or North Korea could attempt to offset improvements in American conventional capabilities with further nuclear expansion. But ongoing nuclear modernization in both countries already changes the landscape of East Asian security, such that advances in US capabilities will restore deterrence rather than reshape it. In the case of China, the PRC has always been conventionally inferior to the United States, yet it has largely eschewed viewing nuclear weapons as warfighting tools with which to offset this inferiority. Indeed, recent evidence suggests China is pursuing strategic substitution, relying on offensive cyber and counterspace systems to coerce adversaries without the need to resort to nuclear weapons (F. Cunningham 2025). From this perspective, the modernization program – while it certainly carries significant risks – is primarily defensive, designed to better absorb a US nuclear first-strike and maintain survivability. While North Korea does appear to view its nuclear weapons as an offset to American conventional superiority, it is likely set on its current path towards pursuing additional nuclear capabilities, in large part for domestic political reasons. There is little reason to suspect that a shift to a conventional counterforce strategy would engender a North Korean nuclear buildup more intensely than the nuclear-focused approach of the status quo or a potential US nuclear buildup in the coming years.

Another potential concern with a conventional counterforce strategy is that American adversaries might seek to match the United States in a conventional arms race, rather than a nuclear one. For its part, North Korea is likely incapable of matching the United States and its allies in the conventional domain. And for its part, China is already engaged in an enormous conventional buildup. Any shift by Washington toward a conventional

counterforce strategy should be seen as a response to China's actions rather than the trigger for further ones. Yet it will be important to manage the development pace and geographical distribution of conventional counterforce capabilities to avoid spooking Beijing unnecessarily. The United States can help reinforce the message that any new capabilities are primarily defensive and aimed at reducing nuclear risk by taking additional steps such as avoiding the use of dual-capable delivery systems and drawing clear lines between nuclear and conventional systems.

Finally, some might worry that conventional counterforce systems will fail to adequately deter adversaries. This is a difficult claim to verify or dismiss given the paucity of empirical data – indeed, this is the case for theories of nuclear deterrence writ large – but we believe this concern is likely overstated for three reasons. First, emphasizing a strategy of integrated deterrence, in which conventional counterforce assets deter all but the most extreme nuclear and conventional threats, does not eliminate American nuclear forces. Rather, it supplements them in a way that allows nuclear forces to be concentrated on the narrower mission of existential deterrence, while also mitigating many of the aforementioned challenges that a nuclear-oriented deterrence approach creates. Second, recent wargames find that additional American nuclear capabilities are unlikely to enhance deterrence vis-à-vis China, but that additional conventional forces likely would (Cancian, Cancian, and Heginbotham 2024, 66–72). While imperfect, wargaming offers a useful method for evaluating various deterrence strategies in a data-poor environment, and these results reinforce the limited value of a regional deterrence strategy premised exclusively or primarily on nuclear weapons. These findings also echo real-world dynamics, with many US allies during the Cold War viewing capable US conventional forces as essential to deterrence and reassurance. Third, as demonstrated in our discussion of the historical development of American nuclear policy in the Asia-Pacific, regional actors are especially wary of an excessive reliance on nuclear threats. More recent opinion poll data corroborates this argument, revealing important segments of Asian allies' populations are opposed to strategies that rely on nuclear threats, which in turn makes an uncritical embrace of nuclear deterrence politically difficult (Sukin 2024). Strategies of regional nuclear deterrence often overlook this element of the reassurance problem, which we believe is better resolved by deemphasizing nuclear weapons in regional deterrence while still retaining nuclear assets as a backstop and existential deterrent.

In short, conventional counterforce is not a panacea. But thoughtful and careful expansion of US and allied conventional capabilities in the Indo-Pacific region meaningfully reduce the dangers inherent in a nuclear-oriented approach to regional deterrence, while introducing few novel risks of its own.

Conclusion

Amidst growing nuclear threats from China and North Korea, nuclear issues are likely to remain at the heart of the security environment for many years to come. The United States and its allies will have to contend with enhanced capabilities among these adversaries as well as growing cooperation between Beijing, Pyongyang, and Moscow. Although directly coordinated aggression is unlikely, concurrent or sequential crises could potentially emerge that would stretch US resources thin and require greater

reliance on allied capabilities. In such a contingency, an enhanced conventional posture in the region – made up, in no small part, of conventional counterforce assets from US allies – could provide a critical advantage.

Given the nuclear nature of many of the potential regional flashpoints, the maintenance of US nuclear security guarantees to its allies must remain a critical feature of the region. But precisely how the United States approaches its nuclear alliances matters. If Washington continues to rely on nuclear weapons as the main line of defense against diverse regional security challenges – or if Washington invests in further US nuclear assets – it risks dangerous consequences. Such a move could exacerbate Sino-American tensions, further motivating China's nuclear buildup. Moreover, it could undermine crisis stability by blurring the line between conventional and nuclear threats. Finally, it could destabilize US alliances or even push some allies towards acquiring nuclear weapons of their own. A pivot towards strengthened conventional counterforce systems offers many of the same deterrent effects as the current arrangements, with far fewer dangers than a deterrence policy built primarily around nuclear weapons may have. A conventional counterforce approach could offer enough strength to challenge the North Korean and Chinese militaries, while de-emphasizing nuclear threats to reduce the chances of inadvertent escalation to nuclear use. The prioritization of conventional systems also grants regional partners a greater voice on regional defense issues. This has multiple salutary effects, including better integrating regional partners into defense planning and thus bolstering US capabilities in the region. Moreover, a policy decision to de-emphasize nuclear weapons and enhance allied states' voices reduces the risk of allied nuclear proliferation by assuaging fears of American recklessness and by demonstrating that deterrence can be achieved without resorting to nuclear weapons.

East Asia will continue to be a challenging security environment for the foreseeable future, and the complexity of the region makes precise forecasting difficult. If the pessimists are correct, even a concerted effort shifting American strategy toward one of conventional counterforce may prove insufficient to change Chinese and North Korean behavior. But there are significant risks with uncritically adopting this worst-case scenario assumption. Rather than assume the worst and risk triggering a truly massive and otherwise avoidable nuclear arms race, Washington is best served by funneling resources into bolstering its conventional capabilities in the region. This would improve its regional capabilities while allowing China an off-ramp from the emerging Sino-American nuclear arms race.

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References

Acton, J. M. 2018. "Escalation Through Entanglement: How the Vulnerability of Command-and-Control Systems Raises the Risks of an Inadvertent Nuclear War." *International Security* 43 (1): 56–99. https://doi.org/10.1162/isec_a_00320.

Arms Control Association. 2025. "Japan, U.S. Announce Guidelines to Deepen Extended Deterrence." https://www.armscontrol.org/act/2025-01/news-briefs/japan-us-announce-guidelines-deepen-extended-deterrence .

Avey, P. C. 2018. "The Historical Rarity of Foreign-Deployed Nuclear Weapon Crises." *Security Studies* 27 (1): 89–119. https://doi.org/10.1080/09636412.2017.1360076.

Berger, T. 2014. "Norms, Identity, and National Security." In *Security Studies: A Reader*, edited by W. Christopher. Hughes and Yew Meng Lai. Routledge.

Bowers, I., and H. S. Hiim. (2020/2021). "Conventional Counterforce Dilemmas: South Korea's Deterrence Strategy and Stability on the Korean Peninsula." *International Security* 45 (3): 7–39. https://doi.org/10.1162/isec_a_00399.

Cancian, M., M. Cancian, and E. Heginbotham. 2024. *Confronting Armageddon: Wargaming Nuclear Deterrence and Its Failures in a U.S.-China Conflict Over Taiwan*. Center for Strategic and International Studies.

Chang, G. H. 1988. "To the Nuclear Brink: Eisenhower, Dulles, and the Quemoy-Matsu Crisis." *International Security* 12 (4): 96–123. https://doi.org/10.2307/2538996.

Chen, Z. 2010. "Second Artillery Expert Says South Korea Uses Hyunmoo 3C Missile to Boost Morale and Deter Neighbors" [二炮专家称韩国借玄武3C导弹振奋士气威慑周边]. *China National Radio [中国广播网]*. https://mil.news.sina.com.cn/2010-07-20/1605601571.html.

Choe, S. H. 2024. "For North Korea, War in Ukraine is a Coveted Chance for Military Practice." *The New York Times*. https://www.nytimes.com/2024/10/16/world/asia/north-korea-ukraine-russia.html .

Cohn, J., T. A. Walton, A. Lemon, and T. Yoshihara. 2019. *Leveling the Playing Field: Reintroducing U.S. Theater-Range Missiles in a Post-Inf World*. Center for Strategic and Budgetary Assessments.

Colby, E. 2018. "If You Want Peace, Prepare for Nuclear War: A Strategy for the New Great-Power Rivalry." *Foreign Affairs* 97 (6). https://www.foreignaffairs.com/articles/china/2018-10-15/if-you-want-peace-prepare-nuclear-war.

Confidential Annex To C.O.S. (58) 77th Meeting. 1958. "Tna Air 8/1942."

Crane, C. C. 2000. "To Avert Impending Disaster: American Military Plans to Use Atomic Weapons During the Korean War." *Journal of Strategic Studies* 23 (2): 72–88. https://doi.org/10.1080/01402390008437791.

Cunningham, F. 2025. *Under the Nuclear Shadow: China's Information-Age Weapons in International Security*. Princeton University Press.

Cunningham, F. S., and M. T. Fravel. 2015. "Assuring Assured Retaliation: China's Nuclear Posture and U.S.-China Strategic Stability." *International Security* 40 (2): 7–50. https://doi.org/10.1162/ISEC_a_00215.

Cunningham, F. S., and M. T. Fravel. 2019. "Dangerous Confidence? Chinese Views on Nuclear Escalation." *International Security* 44 (2): 61–109. https://doi.org/10.1162/isec_a_00359.

Desmaele, L. 2024. "US Security Assurances and Nuclear Tripolarity." *Survival* 66 (2): 143–156. https://doi.org/10.1080/00396338.2024.2332066.

Ewing, P. 2016. "Obama's Nuclear Paradox: Pushing for Cuts, Agreeing to Upgrades." *National Public Radio*. https://www.npr.org/sections/parallels/2016/05/25/479498018/obamas-nuclear-paradox-pushing-for-cuts-agreeing-to-upgrades.

Fink, A. L. 2024. "Nuclear-Armed Sea-Launched Cruise Missile (SLCM-N)." *Congressional Research Service*. https://www.congress.gov/crs-product/IF12084.

Frieman, W. 1996. "New Members of the Club: Chinese Participation in Arms Control Regimes 1980–1995." *The Nonproliferation Review* 3 (3): 15–30. https://doi.org/10.1080/10736709608436634.

Gavin, F. J. 2015. "Strategies of Inhibition: U.S. Grand Strategy, the Nuclear Revolution, and Nonproliferation." *International Security* 40 (1): 9–46. https://doi.org/10.1162/ISEC_a_00205.

Herzog, S., and L. Sukin. 2023. "The Dueling Nuclear Nightmares Behind the South Korean President's Alarming Comments." *Carnegie Endowment for International Peace*. https://carnegieendowment.org/posts/2023/01/the-dueling-nuclear-nightmares-behind-the-south-korean-presidents-alarming-comments?lang=en.

Hiim, H. S., M. T. Fravel, and M. L. Trøan. 2023. "The Dynamics of an Entangled Security Dilemma: China's Changing Nuclear Posture." *International Security* 47 (4): 147–187. https://doi.org/10.1162/isec_a_00457.

Hiim, H. S., and M. L. Trøan. 2022. "Hardening Chinese Realpolitik in the 21st Century: The Evolution of Beijing's Thinking About Arms Control." *Journal of Contemporary China* 31 (133): 86–100. https://doi.org/10.1080/10670564.2021.1926095.

Kimball, D. 2023. "The U.S. and China Re-Engage on Arms Control. What May Come Next." *Bulletin of the Atomic Scientists*. https://thebulletin.org/2023/11/the-us-and-china-re-engage-on-arms-control-what-may-come-next/.

Kroenig, M., and M. Massa. 2021. "Towards Trilateral Arms Control: Options for Bringing China into the Fold." *Atlantic Council*. https://www.atlanticcouncil.org/wp-content/uploads/2021/02/Trilateral-Arms-Control-IB-v5.pdf.

Kühn, U., and H. Williams. 2024. "Behavioral Arms Control and East Asia." *Journal for Peace & Nuclear Disarmament* 7 (1): 143–156. https://doi.org/10.1080/25751654.2024.2337965.

Lanoszka, A. 2018. *Atomic Assurances*. Cornell University Press.

Lawrence Livermore Laboratory. 2023. *China's Emergence as a Second Nuclear Peer: Implications for U.S. Nuclear Deterrence Strategy*. The Center for Global Security Research. https://cgsr.llnl.gov/sites/cgsr/files/2024-08/CGSR_Two_Peer_230314.pdf .

Lieber, K., and D. Press. 2017. "The New Era of Counterforce: Technological Change and the Future of Nuclear Deterrence." *International Security* 41 (4): 9–49. https://doi.org/10.1162/ISEC_a_00273.

Logan, D. 2023. "Are They Reading Schelling in Beijing? The Dimensions, Drivers, and Risks of Nuclear-Conventional Entanglement in China." *Journal of Strategic Studies* 46 (1): 5–55. https://doi.org/10.1080/01402390.2020.1844671.

Logan, D. C., and P. C. Saunders. 2023. *Discerning the Drivers of China's Nuclear Force Development: Models, Indicators, and Data*. National Defense University Press.

Miller, N. L. 2014. "The Secret Success of Nonproliferation Sanctions." *International Organization* 68 (4): 913–944. https://doi.org/10.1017/S0020818314000216.

Myrick, R. 2021a. "Do External Threats Unite or Divide? Security Crises, Rivalries, and Polarization in American Foreign Policy." *International Organization* 75 (4): 921–958. https://doi.org/10.1017/S0020818321000175.
Myrick, R. 2021b. "America is Back—But for How Long?" *Foreign Affairs*. https://www.foreignaffairs.com/articles/world/2021-06-14/america-back-how-long .
Nicastro, L. A. 2024. "AUKUS Pillar 2 (Advanced Capabilities): Background and Issues for Congress." *Congressional Research Service*. https://s3.documentcloud.org/documents/24679301/aukus-pillar-2-advanced-capabilities-background-and-issues-for-congress-may-21-2024.pdf.
Panda, A., and T. A. Volpe. 2024. "Limited Leverage: Nuclear Latency in South Korea's Alliance Bargaining." *The Washington Quarterly* 47 (1): 147–166. https://doi.org/10.1080/0163660X.2024.2326727.
Paul, T. V. 2000. *Power versus Prudence: Why Nations Forgo Nuclear Weapons*. McGill-Queen's Press.
Pugh, M. 1989. *The ANZUS crisis, Nuclear Visiting and Deterrence*. Cambridge University Press.
Reiter, D. 2014. "Security Commitments and Nuclear Proliferation." *Foreign Policy Analysis* 10 (1): 61–80. https://doi.org/10.1111/fpa.12004.
Roehrig, T. 2017. *Japan, South Korea, and the United States Nuclear Umbrella*. Columbia University Press.
Sanger, D. 2024. "Biden's Armageddon Moment: When Nuclear Detonation Seemed Possible in Ukraine." *The New York Times*. https://www.nytimes.com/2024/03/09/us/politics/biden-nuclear-russia-ukraine.html.
Seitz, S. 2024. "Purchasing Prestige or Seeking Security? How Status Concerns and External Threats Shape Military Force Design". PhD diss., University of Oxford.
Seitz, S., and C. Talmadge. 2020. "The Predictable Hazards of Unpredictability: Why Madman Behavior Doesn't Work." *Washington Quarterly* 43 (3): 31–46. https://doi.org/10.1080/0163660X.2020.1810424.
Snyder, G. H. 1984. "The Security Dilemma in Alliance Politics." *World Politics* 36 (4): 461–495. https://doi.org/10.2307/2010183.
Soloman, J. 2023. "China Rejects Nuclear Talks with the U.S. as it Looks to Strengthen its Own Arsenal." https://www.semafor.com/article/06/08/2023/china-rejects-nuclear-talks-us.
Sukin, L. 2020. "Credible Nuclear Security Commitments Can Backfire: Explaining Domestic Support for Nuclear Weapons Acquisition in South Korea." *The Journal of Conflict Resolution* 64 (6): 1011–1042. https://doi.org/10.1177/0022002719888689.
Sukin, L. 2022. "Why 'Cheap' Threats are Meaningful: Threat Perception and Resolve in North Korean Propaganda." *International Interactions* 48 (5): 936–967. https://doi.org/10.1080/03050629.2022.2068542.
Sukin, L. 2024. "Why Calls for Regime Change in North Korea can be Counterproductive." *United States Institute of Peace*. https://www.usip.org/publications/2024/02/why-calls-regime-change-north-korea-can-be-counterproductive.
Sukin, L., and T. Dalton. 2021. "Reducing Nuclear Salience: How to Reassure Northeast Asian Allies." *Washington Quarterly* 44 (2): 143–158. https://doi.org/10.1080/0163660X.2021.1934257.
Sukin, L. R. 2021. *The Risks of Nuclear States' Signals of Resolve*. PhD diss., Stanford University.
Sukin, L., and W. Seo. 2024. "East Asia's Alliance Dilemma: Public Perceptions of the Competing Risks of Extended Nuclear Deterrence." *Journal for Peace & Nuclear Disarmament* 7 (1): 91–114. https://doi.org/10.1080/25751654.2024.2358596.
Talmadge, C. 2017. "Would China Go Nuclear? Assessing the Risk of Chinese Nuclear Escalation in a Conventional War with the United States." *International Security* 41 (4): 50–92. https://doi.org/10.1162/ISEC_a_00274.
Talmadge, C. 2019. "China and Nuclear Weapons." *Brookings Institution*. https://www.brookings.edu/wp-content/uploads/2019/09/FP_20190930_china_nuclear_weapons_talmadge-1.pdf .
Talmadge, C. 2022. "Multipolar Deterrence in the Emerging Nuclear Era." In *The Fragile Balance of Terror: Deterrence in the New Nuclear Age*, edited by V. Narang and S. Sagan. Cornell University Press.

US Department of Defense. 2023. "Military and Security Developments Involving the People's Republic of China." https://media.defense.gov/2023/Oct/19/2003323409/-1/-1/1/2023-MILITARY-AND-SECURITY-DEVELOPMENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA.PDF .

The White House. 2023a. "Secretary of Defense Lloyd J. Austin III Joint Press Conference with Republic of Korea Minister of National Defense Shin Won-Sik Following the U.S.-ROK Security Consultative Meeting, in Seoul, South Korea." https://www.defense.gov/News/Transcripts/Transcript/Article/3587394/secretary-of-defense-lloyd-j-austin-iii-joint-press-conference-with-republic-of/.

The White House. 2023b. "Washington Declaration." https://www.whitehouse.gov/briefing-room/statements-releases/2023/04/26/washington-declaration-2/#:~:text=The%20two%20Presidents%20announced%20the,Republic%20of%20Korea%20(DPRK).

Wu, R. 2020. "Living with Uncertainty: Modeling China's Nuclear Survivability." *International Security* 44 (4): 84–118. https://doi.org/10.1162/isec_a_00376.

Wu, R. 2021/2022. "Assessing China-U.S. Inadvertent Nuclear Escalation." *International Security* 46 (3): 128–162. https://doi.org/10.1162/isec_a_00428.

Yonhap. 2023. "*Russia Proposed Three-Way Naval Exercise with N*. Korea, China: NIS.". https://en.yna.co.kr/view/AEN20230904008951315.

Yoon, D. 2023. "South Korean President Says Country Could Develop Nuclear Weapons." *Wall Street Journal*. https://www.wsj.com/articles/south-korean-president-says-country-could-develop-nuclear-weapons-11673544196.

Zhao, T. 2020. "Conventional Long-Range Strike Weapons of US Allies and China's Concerns of Strategic Instability." *The Nonproliferation Review* 27 (1–3): 109–122. https://doi.org/10.1080/10736700.2020.1795368.

Zhao, T. 2022. *China's Approach to Arms Control Verification*. Sandia National Laboratory. https://www.sandia.gov/app/uploads/sites/148/2022/04/SAND2022-3562-O.pdf.