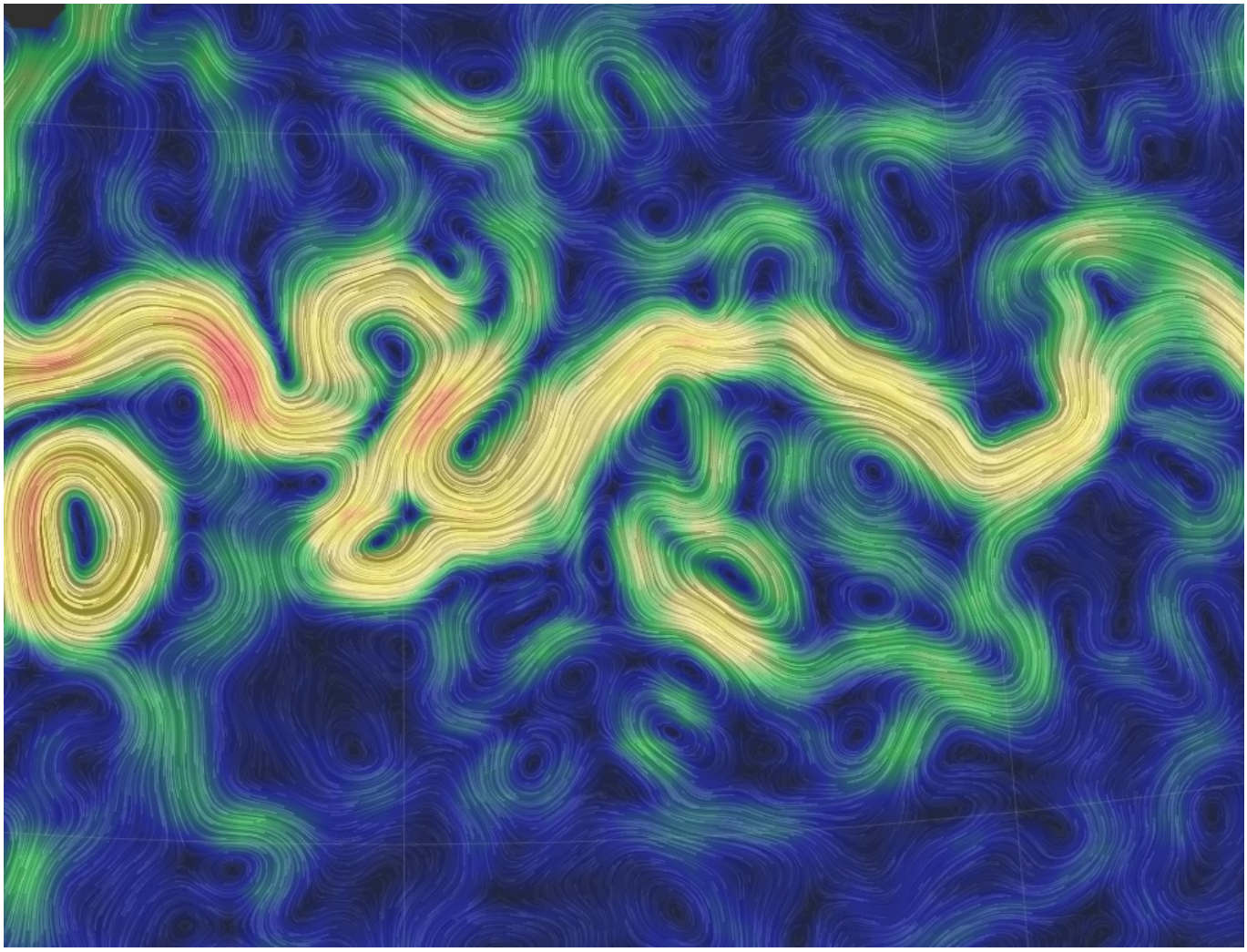
REDUCING OR EXPLOITING RISK? VARIETIES OF US NUCLEAR THOUGHT AND THEIR IMPLICATIONS FOR NORTHEAST ASIA



Recommended Citation

Van Jackson, "REDUCING OR EXPLOITING RISK? VARIETIES OF US NUCLEAR THOUGHT AND THEIR IMPLICATIONS FOR NORTHEAST ASIA", NAPSNet Special Reports, February 28, 2022, https://nautilus.org/napsnet/napsnet-special-reports/reducing-or-exploiting-risk-varieti-s-of-us-nuclear-thought-and-their-implications-for-northeast-asia/

VAN JACKSON

FEBRUARY 28, 2022

I. INTRODUCTION

In this essay, Van Jackson argues that there is no monolithic US perspective" on nuclear weapons in Northeast Asia. Instead, he suggests, the propensity of US policymakers to use nuclear weapons is heavily conditioned by their political and ideological orientation that can described in four camps that he compares and contrasts.

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This report is a part of a joint project on Reducing the Risk of Nuclear Weapon Use in Northeast Asia (NU-NEA) and has been cross-posted by the Asia Pacific Leadership Network **here,** and the Research Center for Nuclear Weapons Abolition (RECNA), and the Panel on Peace and Security of North East Asia (PSNA) **here** The year 1 final report of the project is now available **here**

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Acknowledgement: The NU-NEA project is funded by Nagasaki University and the John D. and Catherine T. MacArthur Foundation.

Banner image: Banner image: Nautilus visualization of policy currents—from NASA's EarthNull supercomputer Northwest Pacific ocean currents map updated every three hours here created 1430 AEST February 28 2022

II. NAPSNET SPECIAL REPORT BY VAN JACKSON

REDUCING OR EXPLOITING RISK? VARIETIES OF US NUCLEAR THOUGHT AND THEIR IMPLICATIONS FOR NORTHEAST ASIA

FEBRUARY 28, 2022

Summary

This paper argues that there is no monolithic "United States perspective" when it comes to theories of nuclear stability, either structurally or during a crisis. Instead, the propensity of American policymakers to use or invest in nuclear weapons is heavily conditioned by their political and ideological orientation. There has always been a rough ideological divide between nuclear hawks (those tending to favor military coercion) and doves (those generally opposing signaling threats of force) in the United States, but the past several decades have seen more diversity in the types of views and preferences expressed in policy circles about strategic stability and the (dis)utility of nuclear weapons. This paper categorizes the various US perspectives on nuclear weapons as "arms-controllers," who seek to reduce risks to strategic stability and view advanced conventional weapons

as heightening the risks of nuclear use, "nuclear traditionalists," who accept the logic of mutually assured destruction, "nuclear primacists," who believe stability derives from nuclear superiority, escalation dominance, and the willingness to launch damage-limiting nuclear first-strikes, and "future-of-war" strategists, who de-center the role of nuclear weapons in US strategy in favor of a focus on precision-guided conventional munitions and delivery systems. These categorical distinctions, and which group holds the attention of policymakers, matters. The scope for US nuclear weapons use—and the propensity to engage in actions that trigger adversary nuclear considerations—narrows and widens depending on whose logic and preferences prevail both over time and in moments of crisis or shock.

1. Introduction

This paper argues that there is no monolithic "United States perspective" on nuclear weapons in Northeast Asia. Instead, the propensity of US policymakers to use nuclear weapons is heavily conditioned by their political and ideological orientation. Although this may seem obvious, it means that the US response to change—whether induced by military aggression, shifts in adversary nuclear policy, or trends in conventional weapons technology—depends substantially on the internalized causal beliefs about stability of those in power at the time of a decision because events will be interpreted differently by different constituencies within the US policy community.

Although there has always been a rough ideological divide between nuclear hawks (those tending to favor military action) and doves (those generally opposing the use of force) in the United States, the past several decades have seen more diversity in the types of views and preferences expressed in policy circles about strategic stability and the (dis)utility of nuclear weapons. *Arms-controllers*, who are found almost entirely in the Democratic Party today, seek to reduce risks to strategic stability and view advanced conventional weapons as heightening the risks of nuclear use. *Nuclear traditionalists* exist in both major political parties and accept the logic of mutually assured destruction (MAD). *Nuclear primacists*, who are located solely within the Republican Party, believe stability derives from nuclear superiority, escalation dominance, and the willingness to launch damage-limiting nuclear first-strikes. And *future-of-war (FoW) strategists*, a trans-partisan group, de-center the role of nuclear weapons in US strategy in favor of a focus on precision-guided conventional munitions and delivery systems. These categorical distinctions matter because the scope for US nuclear weapons use—and the propensity to engage in actions that trigger adversary nuclear weapons use—narrows and widens depending on whose logic and preferences prevail in moments of crisis or shock.

The remainder of this paper has three parts. The first briefly situates contemporary perspectives about nuclear weapons in the longer US nuclear history in Northeast Asia. The second outlines four schools of thought comprising the US nuclear policy epistemic community along several dimensions. The third part discusses how these cleavages within the US policy milieu might affect US nuclear and related weapons use in Northeast Asia by examining their intersection with three different pathways to potential nuclear use—a North Korean atmospheric nuclear test, ally nuclear near-proliferation, and limited conventional war gone wrong.

2. The Arc of US Nuclear History in Northeast Asia

For most of the Cold War, when nuclear weapons were central to US strategic thinking, Northeast Asia was secondary to the European theater. The United States threatened nuclear-weapons use during the Korean War.[1] The Eisenhower administration contemplated nuclear use in the Quemoy-Matsu crises with China during the 1950s.[2] And the Kennedy administration considered preventive strikes targeting key Chinese facilities into the 1960s.[3] Throughout the Cold War, moreover, the United States maintained forward-positioned nuclear weapons in the Republic of Korea (ROK) and

via the regular deployment of nuclear-armed submarines. Nevertheless, US nuclear strategy—force structure, posture, and doctrine—was disproportionately driven by concerns with either deterrence or damage limitation against the Soviet Union in conflicts primarily imagined in Europe.

That geographic focus gave way somewhat in the 1980s as the US Navy championed a maritime strategy that elevated the importance of the Pacific and embraced the concept of horizontal escalation (the geographical expansion of conflict).[4] The Able Archer nuclear war scare in 1983, in which a NATO (North Atlantic Treaty Organization) command post simulation of conflict escalation was interpreted as potentially the build-up to a real attack by the Soviet Union, was an idiosyncratic event, but it arose after more than a year of widespread concerns with growing crisis instability risks as a result of the Reagan administration's arms buildups—including in mobile intercontinental ballistic missiles (ICBMs) and ballistic missile defenses—combined with an expanding forward military posture and increased military exercise tempo. Horizontal escalation as an approach to deterrence further heightened the perceived danger of this era because of its premise—if conflict erupted in the Middle East or Europe, the United States would deliberately expand the conflict to the Pacific in order to impose a multifront war on Soviet forces.[5] By design, a conventional war anywhere could have meant nuclear war in Northeast Asia.

The Reagan era was a critical juncture in American nuclear thinking in two ways. Many defense experts at the time thought Reagan's strategy was gratuitously expensive and risky, and without commensurate benefit to justify the risks and costs.[6] In spite of this, the Cold War ended favorably for the United States; the superpower seemingly paid no geopolitical price for the defense decisions of the 1980s. Consequently, Republicans walked away from the Cold War rejecting some of the core judgments formulated in security studies about the limits of nuclear coercion, believing instead that it was the US willingness to out-arms race the Soviets and put forward pressure on Soviet military positions that won the Cold War.[7] Nuclear and conventional military superiority became articles of faith in the post-Cold War era among Republicans, which also strengthened a corollary belief that arms control and international institutions were harmful restraints on US power, and that US power alone could guarantee stability.[8]

The second way the Reagan era proved pivotal, however, was as a segue into the Revolution in Military Affairs (RMA). The Eisenhower administration's decision to adopt a doctrine of massive nuclear retaliation in the 1950s used the then-new technology of nuclear weapons to offset Soviet conventional superiority in European ground forces.[9] As Soviets began to reach nuclear parity with the United States, the Pentagon surged investments in data processing, ballistic rocket technology, and Global Positioning System technology beginning in the 1970s.[10] The non-nuclear precision-guided munitions (PGMs) capability that resulted in the 1980s offset the Soviets' nuclear parity to ensure the US military retained a favorable edge in the global balance of forces. Many US defense strategists saw the use of PGMs to quickly and decisively rollback Saddam Hussein's invasion of Kuwait in 1990/1991 as a transformation of warfare. Believing an RMA had begun, a cadre of defense intellectuals and practitioners began planning and advocating for a future of war that paid little attention to nuclear weapons in favor of conventional PGMs.[11]

In the George W. Bush administration, two intellectual currents were thus driving US nuclear and defense policy. On the one hand, Bush's Nuclear Posture Review and his nuclear specialists sought a massive expansion in ballistic missile defenses, non-strategic low-yield nuclear weapons, and the preservation of nuclear superiority vis-à-vis Russia. They were also concerned about the Democratic People's Republic of Korea (DPRK) as a nascent "rogue" nuclear state, and how China's burgeoning anti-satellite (ASAT) capability, demonstrated in 2007, might undermine US escalation dominance.[12] On the other hand, the Pentagon simultaneously housed strategists working out of the Office of the Secretary of Defense and the Office of Net Assessment who were focused not on

nuclear weapons but rather preserving a favorable conventional military balance as China's military modernization continued to grow.[13]

So when Barack Obama ascended to the presidency in 2009, he inherited a defense establishment that had already locked into multi-year investments in PGMs and autonomous weapons systems as the "future of war," but also large commitments to ballistic missile defense given the growing ballistic missile capabilities of the DPRK and China. Although Obama's "Global Zero" vision of a world without nuclear weapons de-centered nuclear weapons in US strategy, it was undermined by his administration's reliance on extended nuclear deterrence commitments to Japan and the ROK as an expedient preventing horizontal nuclear proliferation to allies.

3. Varieties of US Nuclear Thought

Disagreement about US nuclear policy in Washington is not new. In the past decade though, diverging perspectives have sharpened to the point that there are now at least four competing schools of thought about nuclear strategy. What these intellectual camps believe and prioritize, even more than the region itself, is the best analytical entry point for understanding likely US decisions and sensibilities regarding specific nuclear concerns affecting Northeast Asia. Although there are avatars in the real world who faithfully hold the views of each of these four camps, outlined in the table below, many others in the US national security establishment are hybrids of these categories, which should be understood as ideal types. As with Weberian ideal-type schemas generally, what makes these categories useful is that the closer a given presidency's intellectual makeup hews to a given school of thought, the easier it will be to anticipate how they would respond to shifts in Northeast Asia's security environment. The table below, and the text that follows, identifies and characterizes these four "camps" of US nuclear thought.

Varieties of US Nuclear Thought				
	Arms controllers	*Future-of-war strategists*	*Nuclear primacists*	*Nuclear traditionalists*
Political alignment	Democratic Party	Transpartisan	Republican Party	Transpartisan
Theory of stability	Risk mitigation	Fighting conventional wars in the nuclear shadow	Escalation dominance, brinkmanship	Secure second strike, mutually assured destruction
Arms control or arms buildup?	Arms control	Conventional buildup	Conventional and nuclear buildup	Nuclear buildup
Can nuclear wars be won?	No	Maybe	Yes	No
Ally nuclear proliferation	Destabilizing	Unnecessary	Potentially useful	Unnecessary
No-first use policy	Yes	Agnostic	No	Agnostic
Missile defense and hypersonic weapons	Increase nuclear risk	Substitute for nuclear risk	Increase stability if you retain superiority	Only impact stability if they alter mutual vulnerability
Possibilities for nuclear use	Fewest	Moderate	Greatest	Moderate
Why	Limits nuclear signaling, expands strategic stability, reduced scope for discrimination problems	Accepts entanglement risks, heightens discrimination problems	First-strike counterforce posture, heightens discrimination problems	Commitment traps, heavy nuclear signaling, accepts discrimination problems

Arms Controllers

Arms controllers believe nuclear wars cannot be won in any meaningful way and prioritize managing and reducing—not exploiting—risks to strategic stability (crisis and arms-racing stability). As such, arms-controllers worry about nuclear accidents and inadvertent escalation, aver nuclear signaling as a means of coercion whenever possible, view proliferation as destabilizing, seek international agreements to impose nuclear restraints, and are conscientious about pressures that might lead others to resort to nuclear first use.[14] Extending this perspective to non-nuclear weapons systems, arms controllers have been the primary constituency concerned with how ballistic missile defenses can undermine strategic stability, why new domains like cyberspace create entanglement risks with nuclear command and control, and why hypersonic glide vehicles heighten nuclear first-use pressures (because of the inability for the target to defend against a missile that could have a nuclear warhead).[15] Although both Democratic and Republican presidencies have concluded arms

control agreements in the past, arms controllers now reside almost entirely within the Democratic Party; the evolution of the Republican Party during the Trump years has eliminated any notable experts who think about nuclear weapons the way arms-controllers do. Given their commitment to mitigating risk, the scope for nuclear weapons-use for any reason is narrowest when arms controllers predominate in the US government.

Nuclear Traditionalists

Nuclear traditionalists accept the logic of mutually assured destruction (MAD), believing in the generally stabilizing benefits of a reliable, modern US nuclear arsenal. Although the Cold War showed that US policymakers constantly sought ways to escape vulnerability to Soviet first-strikes,[16] it also birthed a widely held conventional wisdom that a secure second-strike capability—assured retaliation—was sufficient to deter nuclear attacks in most instances. The paradox of nuclear traditionalists' beliefs is the paradox of deterrence reasoning. They believe nuclear wars are not generally worth fighting, and that strategic stability creates permissive space to pursue military operations and coercive diplomacy without worrying about nuclear war. At the same time, they also rely on nuclear signaling about the United States' willingness to use nuclear weapons to induce adversary restraint and reassure allies who might be tempted to pursue their own nuclear weapons if they deemed the US extended nuclear deterrence commitment unreliable. Nuclear traditionalists, found in both the Democratic and Republican Parties, support nuclear modernization investments and are agnostic about adjacent technology areas like missile defenses and hypersonic glide vehicles. Acknowledging that mutual vulnerability is a sound basis for stability necessarily means that non-nuclear weapons will matter only to the extent they enhance or undermine the ability for either the United States or its adversaries to retain an assured retaliation capability. There is some scope for nuclear-weapons use in the traditionalists' worldview, both out of misperception—because of their reliance on extended nuclear deterrence commitments and nuclear signaling—and because their belief in the stability-instability paradox incentivizes them to, paradoxically, engage in behavior that risks escalating into a conflict spiral.

Future-of War (FoW) Strategists

A category of defense intellectuals and practitioners that did not exist during the Cold War is the FoW strategists. Nurtured by the long-range planning of the Office of Net Assessment in the Pentagon, their attitude toward nuclear weapons derives from a vision of how wars will be fought in the future.[17] FoW strategists are far from advocates of nuclear disarmament. Instead, they simply de-center the role of nuclear weapons by taking as a starting point that the stability-instability paradox holds, meaning that future wars will need to be fought with conventional and emerging weapons systems within the shadow of nuclear war.[18] Although they are agnostic about nuclear modernization and see nuclear weapons as insufficient for anyone's security, FoW strategists believe in retaining what they describe as America's "military-technical edge," prioritizing a conventional arms buildup in PGMs (specifically ballistic missile defense, robotics, hypersonic glide vehicles, rail gun, directed energy weapons, and intermediate-range ground-launched cruise missiles).[19] FoW strategists are a transpartisan grouping that dominated defense strategy during the Obama administration.[20] FoW strategists are less likely than traditionalists to resort to nuclear signaling and believe that conventional military superiority should be adequate to reassure allies worried about US extended deterrence commitments. But there is still scope for nuclear use in this view because of entanglement risks with conventional weapons systems. PGMs, especially hypersonic glide vehicles, may undermine crisis stability by heightening adversary first-use pressures.[21] PGMs also pose a discrimination problem for nuclear-armed adversaries who may not be able to discern whether US missiles targeting them have nuclear warheads.

Nuclear Primacists

Modern nuclear primacists represent an evolution of more assertive beliefs about the utility of nuclear weapons coming out of Reagan-era triumphalism. They exercised substantial influence over both George W. Bush's and Trump's nuclear policies, and today they exist entirely within the Republican Party. Believing that nuclear wars are won by suffering fewer casualties and less damage than one's enemy, nuclear primacists consistently argue that stability is most likely the result of US escalation dominance and a willingness to engage in brinkmanship.[22] Consequently, nuclear primacists seek cutting-edge conventional and nuclear modernization investments in order to implement damage-limitation strategies involving counterforce strikes against adversary weapons systems and infrastructure. They are also proponents of nuclear signaling and even limited nuclear use on the grounds that it has a deterrent effect, which is why they support development and deployment of low-yield, non-strategic nuclear weapons.[23] Also indicative of their heavy reliance on nuclear weapons, the 2018 Nuclear Posture Review stated the United States would resume nuclear testing after a multi-decade moratorium if there were "geopolitical challenges,"[24] which then-Secretary James Mattis elaborated meant "the emergence of new adversaries, expansion of adversary nuclear forces, changes in adversary strategy and doctrine, new alignments among adversaries, and the further proliferation of nuclear weapons."[25] Nuclear primacists additionally embrace ambiguity regarding the United States' willingness to resort to nuclear first-use. Some nuclear primacists have even advocated for ally nuclear proliferation; as long as ally proliferation does not undermine US nuclear superiority, there is no logical basis for nuclear primacists to oppose it. The primacists' scope for nuclear weapons use—deliberate, inadvertent, or incidental—is much higher than for the other nuclear worldviews outlined here. The reason is that the primacists' underlying theory of stability centers on exploiting nuclear weapons in various ways rather than restraining them or appealing to alternative tools of statecraft.

4. Northeast Asian Contingencies and Pathways to Nuclear Use

This section thinks through the degree and specific forms of nuclear risk that arise from how these individual schools of thought would most likely respond to different stress-testing scenarios in Northeast Asia: Japanese and South Korean nuclear near-proliferation, a North Korean atmospheric nuclear test, and a limited war gone wrong. All three of these scenarios have been the basis of nuclear threat-making in the past whereas other forms of signaling (such as underground nuclear tests or ICBM tests) have a track record of occurring without incident. Although Russia generally informs all four ways of thinking about nuclear weapons, Russia is not considered here because of the exceedingly low plausibility of Russia playing a role in a nuclear Northeast Asia pathway.[26] The thumbnails below are not meant to be comprehensive scenarios but rather descriptions of pathways to US nuclear use that are plausible and relevant. Most importantly, they help illustrate how the differences among nuclear camps can affect the US response to events in Northeast Asia. They focus disproportionately on the DPRK on the presumption that the specific hinge points in a Sino-centric nuclear scenario are the same as in a DPRK nuclear pathway—coercion in response to ally nuclear near-proliferation, atmospheric nuclear testing, and coercive nuclear escalation.

Atmospheric Nuclear Test

In the fall of 2017, North Korean diplomats threatened to conduct an atmospheric nuclear test over the Pacific.[27] The threat followed a large underground nuclear test it conducted on September 3, the regime's sixth. Like past tests, it simultaneously served to advance its nuclear program technically while also serving as a political signal of its defiance of US threats. Although the atmospheric nuclear test never took place, it remains an option for the North. How would the United States respond? In 2017, former US officials like Admiral Dennis Blair—President Obama's Director of National Intelligence—pushed for a large-scale bombing campaign against all DPRK nuclear and missile facilities if Kim Jong Un followed through on testing.[28]

The argument that a nuclear test of any kind should warrant a military offensive against the DPRK is unique to the nuclear primacist worldview. Should the DPRK proceed with an atmospheric test in the future, especially during a crisis, the United States may respond with non-nuclear strikes that push the DPRK into nuclear first use either for reasons of "use or lose" or out of hope that escalating to nuclear use might deter further US attacks—if, that is, the dominant voices in that US administration are nuclear primacists. FoW strategists and nuclear traditionalists, however, would not necessarily see value in conducting offensive counterforce operations in response to a non-violent test of nuclear technology. Because an atmospheric nuclear test would provide a greater degree of certainty about the DPRK's ability to deliver a nuclear warhead attack with a multiple stage rocket, the essentially rational posture of FoW strategists and traditionalists would augur refraining from violence. Both, however, would see value in military signaling (with conventional weapons for strategists and with nuclear-capable assets for traditionalists) as a means of demonstrating both US resolve and superior capability. The arms-controlling perspective, concerned as it is with risk management, might see a test as an impetus for reinvigorated nuclear diplomacy, though it too may feel compelled to respond with military signaling as a warning against further provocation.

Ally Near-Proliferation

Japan and the ROK have both positioned their national nuclear capacities and supporting military infrastructure in such a way that either could develop its own nuclear weapons in a reasonably short time frame.[29] Proponents of nuclear weapons in both countries relate their rhetoric about the possibility of going nuclear to perceptions of US unreliability and the fear of US abandonment. Although US policymakers have worked with both governments to advance a policy of extended nuclear deterrence as a way of foreclosing their perceived need for an independent nuclear capability, the waning credibility of extended deterrence commitments are not the only source of nuclear aspiration—the perception in both governments that extended deterrence is askew of the actual threats they face has also given rise to their respective nuclear latency positioning.[30] The period of greatest danger from ally proliferation is arguably during the window *before* either country has an operational nuclear capability but after geopolitical rivals have concluded they are going nuclear. Although ally proliferation would not directly trigger US nuclear use, how the DPRK or China reacts could.[31] Nuclear adversaries have heightened strategic incentives to conduct preventive attacks against non-nuclear rivals as they move closer to developing nuclear weapons.[32] This explains Israel's attack on Iraq's Osirak reactor in 1981, the US-Israeli attack on Syria's nuclear reactor construction in 2007,[33] and America's posture toward the DPRK since the 1990s.

Prior to conducting preventive non-nuclear strikes, the DPRK could resort to an atmospheric nuclear test as a coercive signal aimed at convincing either US ally from proceeding with nuclearization; in addition to the threat of escalation, a high-altitude nuclear burst's electromagnetic pulse risks direct damage to electronic-reliant infrastructure. If that fails to deter further ally proliferation, or if DPRK officials determine they would prefer to retain the strategic surprise of a preventive attack, then the DPRK or China could conduct preventive strikes or covert operations with little forewarning, making it a decisive point of escalation. The question is how the United States would respond.

US nuclear traditionalists would feel compelled to redouble the visibility and centrality of the US extended nuclear deterrence commitment, leading to heightened nuclear alert levels, breaking the US moratorium on nuclear testing, and the deployment of nuclear-capable assets in and around Japan and the ROK. Arms controllers would either adopt the same kind of nuclear signaling decisions as traditionalists (because of the unique pressures of the situation) or consider abandoning allies already on the path to nuclearization, the upshot being that if arms controllers broke toward

decoupling rather than nuclear coercion, it would be part of substantial efforts aimed at negotiating nuclear restraints. FoW strategists would at least consider conventional retaliatory operations aimed at "imposing costs" on China/the DPRK (depending on who launched the attack). This would lead the DPRK/China to counter-retaliatory targeting of US or ally forces in the area.[34] Nuclear primacists, on the other hand, might be led to conduct a conventional retaliatory operation, similar to FoW strategists, but also accelerate ally nuclear proliferation on the logical grounds that "more [nuclear weapons] is better." Primacists would also be far more likely to pair the nuclear traditionalists' signaling activities with direct threats of nuclear brinkmanship intended to deter further actions against US allies as they complete their nuclear operationalization.

Limited War Gone Wrong

A third pathway to US nuclear use in Northeast Asia concerns coercive escalation in a conventional limited war. Limited conventional war sits at the intersection of the willingness to resort to coercive uses of military force and the DPRK's strategic culture of reflexively responding to coercive pressure with counter-coercion.[35] That limited war had not happened in several past crises with the DPRK owed to the United States refraining from using military force against the North even when Pyongyang had initiated violence.[36] But the US decision to mirror-image North Korean brinkmanship during the 2017 nuclear crisis—and the leaked ruminations of a "bloody nose" strike on Kim Jong Un that year—suggests that, for some American officials, historical forbearance has eroded.[37] Since 2015, moreover, there are indications that US contingency planning has shifted to emphasize limited conventional war with the DPRK,[38] which implies that the United States believes it can fight and win such wars without resorting to either nuclear war or a full five-phase traditional military campaign.[39] And as the RAND Corporation has analyzed, there are multiple ways a limited war could begin, including Kim Jong Un launching attacks as a domestic political diversion, Kim misperceiving an imminent US or South Korean attack that he responds to with a pre-emptive strike on US, South Korean, or Japanese forces, or Kim attempting to "restore" deterrence following a punitive US preventive attack.[40]

Given the resource-constrained nature of limited war—by definition at least one side does not seek conquest or regime change—one of America's goals is necessarily a cessation of violence, which means the government's theory of stability logically dictates how it goes about restoring it. Faced with such circumstances, nuclear primacists are the only grouping that would be willing to resort to limited nuclear use before the DPRK does. The belief that signaling both superior resolve and superior nuclear capability will cow the DPRK incentivizes US nuclear escalation. Other schools of thought, however, would only risk US nuclear use in retaliation for the DPRK using nuclear weapons first during a limited conflict. Strategically, the DPRK has incentives to target key nodes for US force flow into Korea (the port of Pusan in the ROK, Kadena Air Base in Okinawa, or Anderson Air Base in Guam) in a first strike. If it launched non-nuclear strikes against these same targets, it would be unlikely to trigger US nuclear use. Yet launching nuclear warheads against this same target set would introduce differential responses based on the nuclear school of thought at the helm of US policy.

Arms controllers would be most inclined to either immediately sue for peace or seek negotiations in parallel with continuing conventional warfare, but they would not resort to nuclear retaliation in response to North Korean limited nuclear use *as long as* non-nuclear damage-limiting alternative capabilities exist. FoW strategists would not be inclined to sue for peace but would escalate conventional warfare by increasing the tempo and target set. FoW strategists would seek to compel a cessation of hostilities and deter further North Korean escalation by signaling its superior conventional capabilities.[41] Escalating a punitive conventional response to limited nuclear use would signal the superiority of even US conventional capabilities over North Korean nuclear

capabilities while simultaneously denying the DPRK the coercive advantages of its nuclear use. Nuclear traditionalists, by contrast, and in accord with the principle of mutual vulnerability, would feel immense pressures to resort to nuclear retaliation once the DPRK had escalated to the nuclear level. The larger regime of US extended nuclear deterrence creates a logical commitment trap for traditionalists to respond to nuclear use in kind.

5. Conclusion

The typology of nuclear thinking described above can help anticipate the in-progress nuclear thinking of the Biden presidency. As a Democratic administration, there are no political appointees serving President Biden who have a track record of opinion that aligns with nuclear primacists, and yet indications of the other three camps remains. Biden himself has made comments in the recent past suggesting that the "sole purpose" of nuclear weapons should be deterring the use of nuclear weapons, and he has made some nuclear-related political appointments of experts who are known arms controllers.[42] Both of these data points suggest a degree of moderation and restraint toward questions of nuclear stability. At the same time, however, some of his appointees are nuclear traditionalists who put forward a nuclear modernization budget that was substantially similar to that proposed under Trump, and who stress as part of "Indo-Pacific strategy" in particular the importance of US extended nuclear deterrence commitments to allies.[43] Those commitments are likely to ensure that nuclear signaling remains a part of US statecraft, and nuclear superiority remains a goal of US defense policy. The Pentagon, moreover, consists of both bureaucratic and politically appointed FoW strategists who advocate for conventional military superiority over China as part of a construct of "great-power competition." Like the Trump administration, Biden's FoW strategists are building budgets and tailoring force posture to prevail in conventional conflicts with China. They have subsumed nuclear strategy within a more holistic concept of "integrated deterrence," implying the primacy not of nuclear weapons but rather technology-enabled precision-guided conventional munitions.[44] This concept is specifically meant to give use-of-force options to the president without immediately resorting to nuclear weapons, though the risk of escalation to nuclear use is inherent.

In sum, understanding the varieties of US nuclear thought do not offer predictions but instead tell us where to look in order to anticipate the magnitude and types of risks the president is willing to accept. In the case of President Biden's administration, the composite nature of nuclear thinking points in multiple directions. While Biden may exhibit risk aversion in a nuclear crisis, his staff may well be undertaking actions that make such a crisis more plausible, thereby leaving stability more to chance and adversary reactions than to proactive restraint. But many futures are possible. And as Herman Kahn of all people once conveyed, "The most likely future isn't."[45]

This paper has argued that there is no "United States perspective" on the virtues and problems of nuclear weapons. Instead, there are different theories of stability that translate into different orientations toward risk and different policy preferences. These competing, if implicit, theories of stability influence the propensity for US policymakers to use nuclear weapons in Northeast Asia in different ways. While there are plausible pathways to US nuclear use—an adversary's atmospheric nuclear test, ally nuclear near-proliferation, and coercive escalation in a limited war—the likelihood of the unthinkable actually happening in any of those situations depends substantially on which version of US nuclear thinking has the greatest grip on Washington's policy imagination at the time of crisis.

III. ENDNOTES

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[15] See, for example, James Acton, “Escalation Through Entanglement: How the Vulnerability of Command-and-Control Systems Raises the Risks of an Inadvertent Nuclear War,” *International Security* Vol. 43, no. 1 (2018), pp. 56-99.

[16] Francis Gavin, “Rethinking the Bomb: Nuclear Weapons and American Grand Strategy,” *Texas National Security Review* Vol. 2, no. 1 (2018), pp. 74-100.

[17] See especially Robert Work and Shawn Brimley, *20YY: Preparing for War in the Robotic Age* (Washington, DC: Center for a New American Security, 2014).

[18] Ibid.

[19] Ibid; Michele Flournoy, "America's Military Risks Losing Its Military Edge," *Foreign Affairs* (May/June 2021), https://www.foreignaffairs.com/articles/united-states/2021-04-20/flour-oy-americas-military-risks-losing-its-edge

[20] James Mann, *The Obamians: The Struggle Inside the White House to Redefine American Power* (New York: Penguin Random House, 2012).

[21] Joshua Pollack, "Boost-glide Weapons and US-China Strategic Stability," *The Nonproliferation Review* Vol. 22, no. 2 (2015), pp. 155-164; Acton, "Escalation Through Entanglement."

[22] For representative text of this view that also summarizes the relevant literature espousing the same, see Matthew Kroenig, *The Logic of American Nuclear Strategy: Why Strategic Superiority Matters* (New York: Oxford University Press, 2018).

[23] Geoff Brumfiel, "Trump Administration Begins Production of New Nuclear Weapon," *NPR* (January 28, 2019), https://www.npr.org/2019/01/28/689510716/trump-administration-begi-s-production-of-a-new-nuclear-weapon

[24] The National Defense Strategy and the Nuclear Posture Review," Committee on Armed Services, House of Representatives (February 6, 2018), https://www.govinfo.gov/content/pkg/CHRG-115hhrg28970/pdf/CHRG-115hhrg28970.pdf, p. 77.

[25] Ibid.

[26] On Russia's marginal relevance to Northeast Asian geopolitics for the United States, see especially Eugene Rumer, Richard Sokolsky, and Aleksandar Vladicic, *Russia in the Asia-Pacific: Less Than Meets The Eye* (Washington, DC: Carnegie Endowment for International Peace, 2020), https://carnegieendowment.org/2020/09/03/russia-in-asia-pacific-less-than-meets-eye-pub-82614

[27] Hyonhee Shin and Linda Sieg, "A North Korea Nuclear Test Over the Pacific? Logical, Terrifying," *Reuters* (September 22, 2017), https://www.reuters.com/article/us-northkorea-missil-s-atmospheric-test/a-north-korea-nuclear-test-over-the-pacific-logical-terrifying-idUSKCN1BX0W5

[28] Dennis Blair, "Chairman's Message: Trump's Trip to Asia and Fundamentals to Consider in a High-Stakes Environment," Sasakawa Peace Foundation USA (November 6, 2017), https://spfusa.org/chairmans-message/chairmans-message-trumps-trip-asia-fundamentals-consider-high-stakes-environment/

[29] How quickly either could do this is a matter of some debate, but in both cases they are considered latent nuclear powers, meaning less than a year. On the concept of nuclear latency, See Tristan Volpe, "Atomic Leverage: Compellence with Nuclear Latency," *Security Studies* Vol. 26, no. 3 (2017), pp. 517-44.

[30] Van Jackson, "Raindrops Keep Falling on My Nuclear Umbrella," *Foreign Policy* (May 18, 2015), https://foreignpolicy.com/2015/05/18/raindrops-keep-falling-on-my-nuclear-umbrella-us-ja-an-south-north-korea/

[31] Because the DPRK has more at risk than China in a US ally developing nuclear weapons, its incentives may be logically greater than China's to conduct preventive attacks. Thanks to an anonymous reviewer for mentioning this.

[32] Lyle Goldstein, *Preventive Attack and Weapons of Mass Destruction: A Comparative Historical Analysis* (Palo Alto, CA: Stanford University Press, 2006).

[33] It remains unclear if the attack was conducted by US or Israeli forces, but both militaries had collaborated in planning. On the problems with the preventive bombing tactic and the 2007 case in particular, see Sarah Kreps and Matthew Fuhrmann, "Attacking the Atom: Does Bombing Nuclear Facilities Affect Proliferation?" *Journal of Strategic Studies* Vol. 34, no. 2 (2011), pp. 161-187.

[34] The greatest operational impact would be to target Osan or Kunsan air bases in the ROK, or Kadena Air Base in Okinawa. However, if the DPRK/China sought to maximize the chance of splitting the United States from its allies, they would target ally (rather than US) basing facilities.

[35] On the DPRK's strategic culture of pressure for pressure, see Van Jackson, *On the Brink: Trump, Kim, and the Threat of Nuclear War* (Cambridge: Cambridge University Press, 2018), pp. 35-51; Van Jackson, "Want to Strike North Korea? It's Not Going to the Way You Think," *Political Magazine* (January 12, 2018), https://www.politico.com/magazine/story/2018/01/12/north-kore--strike-nuclear-strategist-216306/

[36] Except for 1994 and 2017, it was US restraint that had steered every other crisis with the DPRK away from outright conflict. See Van Jackson, *Rival Reputations: Coercion and Credibility in US-North Korea Relations* (Cambridge: Cambridge University Press, 2016).

[37] Jackson, *On the Brink*.

[38] Michael Peck, "What Would It Take for An All-Out War in Korea?" *The National Interest* (July 22, 2021), https://nationalinterest.org/blog/reboot/what-would-it-take-all-out-war-korea-190038

[39] The phases of a military campaign describe the sequence of military operations necessary to realize military objectives and political goals before instantiating a new status quo of stability. They span "shape, deter, seize initiative, dominate, stabilize, enable civil authority." See Lauren Fish, "Painting By Numbers: A History of the U.S. Military's Phasing Construct," *War on the Rocks* (November 1, 2016), https://warontherocks.com/2016/11/painting-by-numbers-a-history-of-the-u-s-militarys-phasing-construct/

[40] Michael Mazarr, Gian Gentile, Dan Madden, Stacey Pettyjohn, and Yvonne Crane, *The Korean Peninsula: Three Dangerous Scenarios* (Santa Monica, CA: RAND Corporation, 2018), p. 8.

[41] FoW strategists sometimes prize signaling US capability even more than signaling resolve. See Spencer Bakich, "Signalling Capacity and Crisis Diplomacy: Explaining the Failure of 'Maximum Pressure' in the 2017 U.S.-North Korea Nuclear Crisis," *Journal of Strategic Studies* (2020), Advance Access, https://doi.org/10.1080/01402390.2020.1755960

[42] See, for example, Bryan Bender, "'This is Going to be Quite a Show': Biden's Arms Control Team Eyes Nuclear Policy Overhaul," *Politico* (January 27, 2021), https://www.politico.com/news/2021/01/27/biden-nuclear-weapons-policy-463335

[43] "Biden's Disappointing First Nuclear Weapons Budget," *Arms Control Association Issue Brief* Vol. 13, no. 4 (July 9, 2021), https://www.armscontrol.org/issue-briefs/2021-07/bidens-disappoint-ng-first-nuclear-weapons-budget

[44] Michael O'Hanlon, "The Best Defense? An Alternative to All-Out War or Nothing," *Brookings Order From Chaos Blog* (May 21, 2021), https://www.brookings.edu/blog/order-fro--chaos/2021/05/21/the-best-defense-an-alternative-to-all-out-war-or-nothing/

[45] Herman Kahn, *The Coming Boom: Economic, Political, and Social* (New York: Simon & Schuster, 1982), p. 82.

IV. NAUTILUS INVITES YOUR RESPONSE

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