

Reading the Nuclear Tea Leaves:

Policy and Posture in the Biden Administration

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The nuclear policy community is once again in the grips of pervasive anxiety that U.S. nuclear policy—encompassing force modernization decisions, declaratory policy, and perceptions of adversary nuclear threat and risk—is either about to dramatically change or fail to change as dramatically as it should. In a polarized community characterized by mistrust and a highly politicized discourse, it is not surprising that the public conversation is filled with competing perspectives that seek to ensure that their voices are heard before the policies are set. As such, the current discourse appears particularly noisy. The greatest controversy centers on the modernization of the nuclear force, in particular the future of the Intercontinental Ballistic Missile (ICBM) force and commitment to the full triad of nuclear delivery systems, the role and primacy of nuclear weapons in our overall deterrence declaratory policy, the relative threat posed by Russia and China as drivers of U.S. nuclear policy, and the relevance and utility of arms control in managing and reducing these threats.

So far, neither side of the debate seems particularly happy. On the one hand, those that favor greater nuclear disarmament are increasingly frustrated that President Biden may walk back from some election promises to reduce the role of nuclear weapons in U.S. national security. On the other hand, several stakeholders in the U.S. nuclear enterprise seem equally worried that the new administration does not fully appreciate the growing deterrence challenges posed by both Russia and China and will walk back from a range of nuclear modernization commitments that were often supported by the Trump administration as well as the Obama administration.

Much of this conversation is part of the natural process and appropriate reevaluation of the nation's deterrence and arms control policies in the months following a presidential transition. It is possible, however, for this cacophony of opinions to become counterproductive and foster mistrust and misunderstanding among critical stakeholders and even undermine the thoughtful reevaluation of policy

and budgets both within the new administration and between the administration and its congressional overseers.

What seems clear at this point is that while neither side of the ideological spectrum appears poised for victory, neither appears to face imminent defeat, and that, on balance, is a good thing. Deterrence works best in moderation, and the ability to avoid precipitous swings across the ideological divide better reinforces deterrence and assures allies alike.

So where can we take cues from the ways in which the nuclear policy winds are, or are not, shifting?

First, New Start Extension

Just 14 days after the inauguration, the Biden administration moved quickly to cement a full, unrestricted, five-year extension of the New Start Treaty just days before its expiration. Binding the United States and Russia to 1,550 deployed strategic warheads across a triad of delivery systems, this extension also ensures that inspection and verification mechanisms remain in place. Does this mean that concerns with Russian compliance in other treaties have gone away or that Russia's vast arsenal of nonstrategic nuclear weapons is not a problem? No, but it does appear that the Biden administration will evaluate arms control agreements on a case-by-case basis and will not hold the last remaining bilateral nuclear arms limitation treaty hostage with wishful thinking or unrealistic preconditions.

For the most part, nuclear experts at home have applauded these efforts, and U.S. allies in Europe and Asia have breathed a sigh of relief. Even in the face of sustained nuclear expansion from Russia and China, a broad consensus remains that the overall parameters of the U.S. strategic nuclear stockpile, as delimited under New Start, are sufficient to meet our global deterrence needs, improve transparency and communication between the United States and Russia on strategic arms, and reduce anxieties about potential arms racing dynamics especially among European allies. Much hard work remains, however. Constituencies at home and abroad will look to the Biden administration to engage constructively with Russia and China on matters of strategic stability and risk reduction in hopes of developing future bases for arms control and nuclear risk reduction efforts. This will likely involve putting some uncomfortable topics such as missile defenses on the agenda while also committing to sustained negotiations as part of a return to a Joint Comprehensive Plan of Action (JCPOA)-like process on the future of Iran's nuclear capabilities.

Second, Alliance Engagement and Reassurance

A recommitment to multilateralism and the global system of alliances that have formed the bedrock of U.S. security policy for 70 years has been the leading edge of the Biden administration's national security policy. In advance of the North Atlantic Treaty Organization (NATO) summit on June 14—which drives home the administration's priorities—Secretary General Stoltenberg **emphasized** the need to work on NATO's next strategic concept and to “invest more together.” This commitment brings with it a range of nuclear policy impacts. Top of the list are potential changes to U.S. declaratory policy, including deep anxiety among European and Asian allies regarding a potential shift to No First Use (NFU) or sole purpose as publicly defining the role of U.S. nuclear weapons and the circumstances under which they would be used. The vocal concerns from our closest allies were influential in derailing attempts to significantly alter U.S. declaratory policy regarding NFU in late 2016. Despite these concerns, the current 2020 **Democratic Party platform states** that Democrats believe that the “sole purpose of [the U.S.] nuclear arsenal should be to deter—and, if necessary, retaliate against—a nuclear attack.”

While the shift to sole purpose from NFU as the language of choice appears designed to address some of these issues, serious concerns from our closest allies remain. These allies live in tight quarters with highly competitive and sometimes outright hostile nuclear-armed neighbors. Currently, the flexibility and ambiguity in U.S. declaratory policy in large part remain to account for the possibility, however remote and by no means required, of a nuclear response to a sudden, existential non-nuclear attack on or invasion of a treaty ally by a nuclear-armed state. Biden administration officials have gone out of their way to stress that their commitment to regional security relationships in Europe and Asia remains paramount, and changes to the declaratory policy will only proceed with allies fully on board. Speaking to NATO on March 24, Secretary of State Antony Blinken [stated](#) that it is critical to keep “our commitments to our allies strong and credible, even as we take steps to reduce further the role of nuclear weapons in our national security.” The debate within NATO will not stop with the declaratory policy. We can expect a series of difficult conversations about the forward deployment of nuclear weapons in Europe and associated dual-capable aircraft as well. Conversations that aim to both reduce reliance on nuclear weapons and reinforce our extended deterrence relationships are vital and welcome but are by no means easy. We should expect that balancing act to take some time and a lot of consultation. Those looking for a speedy and splashy announcement on this issue are likely to be kept waiting a while.

Third, The Triad

Numerous senior officials in the Biden administration have consistently expressed support for maintaining a triad of land, air, and sea-based nuclear weapons delivery platforms. In his nomination hearing before the U.S. Senate, Secretary of Defense Lloyd Austin expressed his personal support for the nuclear triad, [noting](#) that he does not support removing one leg. Similarly, Deputy Secretary of Defense Kath Hicks stated in her nomination [testimony](#) that “the triad has been . . . the bedrock of our nuclear deterrent, and I think it must be modernized in order to be safe, secure, and credible.” Echoing Hicks, Colin Kahl, undersecretary of defense for policy, [stated](#) that “the triad has been a bedrock of deterrence and stability for many decades, and my personal position is that the triad remains a critical hedge against the possibility of technological modernization by our adversaries.” All of these statements indicate that the United States is going to maintain a ground-based leg of its nuclear arsenal. Faced with additional support for a continued nuclear triad on Capitol Hill, a decision to eliminate the ground leg of the triad and rely exclusively on air- and sea-based delivery systems appears highly remote. What remains to be decided is what this ground-based leg looks like.

U.S. nuclear modernization will likely either attempt to extend the lifetime of the Minuteman III missile or move forward with the Ground Based Strategic Deterrent (GBSD). This appears to be the crux of the debate. Opposition to the GBSD is largely rooted in concerns that the missile leg of the triad, with its focus on promptness, carries greater risk of accidental or miscalculated nuclear use and can be seen as redundant to capabilities resident in the submarine-launched ballistic missile (SLBM) force.

However, the recent debate has shifted to cost and transparency in the Pentagon acquisition system. GBSD opponents have expressed concerns that prior assessments, including various Analysis of Alternatives (AOA), have stacked requirements in the GBSD follow-on program’s favor even as the life cycle price tag for the program has continued to rise. Lack of public transparency in past analyses has left space for various outside analyses of potential alternatives such as reusing missile bodies or reducing test frequency and burn rates. Belying these concerns, however, is a deeper one: GBSD opponents fear that once the investments in the GBSD are made, and the system is developed and deployed, it will be almost impossible to reduce or eliminate in the future. By focusing on life extension for the Minuteman system, opponents hope to buy time to build support for future elimination of a system they regard as fundamentally risky.

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Proponents of the GBSB stress two main areas of frustration with this debate. First, the program has had extensive study under multiple administrations and has already absorbed significant delays. They argue that further delays will come with unacceptable levels of operational risk, especially since the GBSB is slated for delivery by 2029. A March 2020 [GAO report notes](#) that Air Force officials are concerned that “as a result of the expected attrition of current field assets, the Minuteman III weapon system will be unable to meet full mission requirements after 2026 should full deployment be required.”

Second, the fixation on the Minuteman missile itself fails to appreciate the scope of modernization required for the overall system and its effective integration into other high-priority modernization efforts. This system includes advanced early warning as well as nuclear command and control—both of which involve an essential but highly complex migration to a digital system architecture with very high cybersecurity requirements. Within the weapons system itself, missiles and silos are only part of a large complex architecture spread across four different states. This systems architecture includes launch control capsules as well as hardware and software requirements to maintain security, safety, communications, and connection between the national command authorities and the missile fields. Faced with essential communications upgrades, spiraling maintenance requirements, and declining physical infrastructure, the launch control facilities must be fully upgraded regardless of which missile occupies which silo.

Numerous public statements from military leadership as well as former military and civilian leaders have made repeated and impassioned arguments against kicking the can down the road on GBSB yet again. In a January 5 call with the Defense Writers Group, U.S. Strategic Command Commander Admiral Richard [said](#), “You cannot life extend the Minuteman III.” Similarly, General Timothy Ray, the commander of Air Force Global Strike Command [said](#), “[t]he Minuteman III is 50 years old; it’s past time to upgrade the missile systems.” Full funding of the GBSB modernization program in the President’s FY22 budget suggests that early action against the program is unlikely. At this point, GBSB proponents seem pretty well-positioned, and it seems likely that continued outspoken, public posturing by senior military leadership may do more harm than good by feeding rather than assuaging GBSB opponents.

The many strong arguments on both sides of this debate can never be reconciled because they are rooted in deep policy disagreements over risk and priority. Yet it is reasonable to expect any incoming president to examine and evaluate a weapons system procurement of this size and significance. A good look under the GBSB hood is reasonable and responsible. As such, the GBSB won’t be “out of the woods” until the strategic reviews are completed later this year. In the meantime, these debates need to play out through the review process. If creative solutions and innovative approaches can produce savings for the U.S. taxpayer while meeting the deterrence mission safely, securely, and effectively—as defined by the president—then that should be met with support from both sides of the debate. Such an assessment can and should be done on an expedited basis through Pentagon processes in close consultation with the White House. Complete re-dos of past AOs, or the creation of politically motivated external bipartisan commissions, can only be seen as stalling tactics.

The current and inbound civilian leadership in the Pentagon, including the deputy secretary, the comptroller, the director of CAPE, and the secretary of the Air Force, and many others, bring extensive experience with the Department of Defense's (DOD) program and budget development processes and acquisition systems. They are nominated by the president and confirmed by the Senate to do exactly this—provide the political and civilian oversight necessary to ensure that the nation's armed forces, including its nuclear forces, are fit for purpose, now and well into the future. That is best done by putting the Pentagon to work and allowing essential internal discussions, including classified discussions, to proceed without fear of leaks or overly public hand-wringing from those involved.



Source: U.S. Air Force photo/Master Sgt. Lance Cheung

Fourth, Nuclear Command, Control, and Communications (NC3)

Few aspects of nuclear modernization enjoy broader consensus than the importance of fully modernizing the nation's NC3 architecture. The nation's NC3 systems, which serve as an invaluable link between U.S. nuclear forces and the presidential authority to launch them, is aging. The system of interconnected sensors, communications relays, ground control centers, and satellites was built during the Cold War and needs an overhaul to function successfully in a fully digital world. Senator Angus King, who chairs the Senate Armed Services Committee, has frequently expressed support for modernizing U.S. NC3. Senator King has **emphasized** that the nuclear triad “really ought to be referred to as the quad” because

“command and control is essential.” It is the “always/never” responsibilities of the NC3 that unite an otherwise polarized policy community. On the one hand, confidence that U.S. nuclear weapons will always be available at the president’s command is considered foundational to a credible deterrent. Alternatively, complete confidence that U.S. nuclear weapons will never be used accidentally, inadvertently, or mistakenly is paramount for those who assign greater value to nuclear safety and security.

Current NC3 modernization plans are being conducted by the NC3 Enterprise Center within the U.S. Strategic Command (STRATCOM). The NC3 is a complex system of systems made up of over [204 individual platforms](#). As individual nuclear weapons delivery systems are modernized, it is crucial that the ability to effectively communicate with these systems is designed in tandem. This will likely become another tension point with potential fiscal strategies to delay or disrupt GBSD modernization given the degree of overlap in communications systems. While many of the details of NC3 modernization remain unclear, it is apparent that cybersecurity will be at the forefront of all modernization efforts. Essential NC3 modernization can and must be a source of common ground for those across the nuclear spectrum.

Fifth, Other Nuclear Posture and Programs

If the GBSD moves forward (and perhaps even if it doesn’t), the spotlight will inevitably fall to other highly controversial but less costly programmatic decisions that will arise through the policy review process and the FY23 program and budget review. Within the DOD, we can expect additional scrutiny for the Long Range Stand Off Weapon, (LRSO) intended to replace the air-launched cruise missile (ALCM), as well as the proposed new nuclear sea-launched cruise missile (SLCM). The LRSO, a core element of the overall modernization program dating back to the Obama administration, is much farther along the development process and therefore likely safer from the budgetary axe. The new SLCM is more controversial and vulnerable, although given its comparatively early stage of development, the dollars involved are fairly small. Based on [recent reports](#), the program seems to enjoy little support from the Navy—a fact that caught the attention and ire of several members of congress in a recent House Armed Services Committee (HASC) hearing on the FY 2022 Budget Request for Nuclear Forces and Atomic Energy Defense Activities.

Bigger decisions will face the National Nuclear Security Administration’s (NNSA) budget, especially in terms of the future of the new W93 warhead, sustainment of the B-83—the megaton warhead originally slated for retirement by the Obama administration—and the expanded plutonium pit production at Savannah River and Los Alamos. Charlie Verdon, the acting administrator of the NNSA, noted the particular importance of plutonium pit production at a recent HASC hearing, [stating](#), “It is the assessment of our best technical experts in our weapons program, the three laboratory directors, and independent experts like the JASON, that the risk is just too high not to have the capability to manufacture plutonium pits at a rate sufficient to refresh the stockpile of pits before they exceed 80-100 years in age.” The FY 2022 president’s budget maintains all of these programs, as well as desperately needed infrastructure upgrades, but some are quite vulnerable in the upcoming appropriations process and are likely to be revisited in future reviews given their impressive price tags and tenuous political support.

Sixth, More Integration

Secretary of Defense Austin has emphasized several times that he supports the development of what he calls “integrated deterrence.” He has [said](#) that “integrated deterrence means . . . that capabilities must be shared across lines as a matter of course, not as an exception to the rule. And it means that coordination across commands and services needs to be a reflex and not an afterthought.”

This concept of integrated deterrence, which seeks to develop capabilities in tandem through a synchronous process, is likely to be a driving principle behind the Biden administration's Nuclear Posture Review (NPR). The NPR will hopefully situate the administration's nuclear policy goals within a wider National Defense Strategy (NDS) that accounts for a range of strategic challenges, including space, cyber, hypersonics, and missile defense and defeat, as well as nuclear force posture. In the recent HASC Strategic Forces Subcommittee hearing, Melissa Dalton, the acting assistant secretary of defense for strategy, plans, and capabilities, outlined this approach, saying that the administration is aiming to “nest” the NPR within the NDS process, which should be finalized by January of 2022. The strategy is consistent with various external articles and reports that [have suggested](#) putting an end to the series of single issue—and inevitably stove-piped—reviews on nuclear posture, missile defense, space, cyber, and taking a more integrated approach.

The review process is the beginning, not the end, of addressing the challenges of integration. An integrated deterrence strategy also rests on the further development of conventional and nuclear integration (CNI) in the DOD strategy, doctrine, and concept development. Here the scope of actual integration, from budgets to strategy, is far murkier. CNI has been a priority focus area in recent years, as the DOD and the military services have wrestled with the implications of a possible conventional confrontation with a nuclear-armed adversary, to include possible conventional operations in the aftermath of limited nuclear use. While some observers have raised concerns that the CNI represents further evidence of a lowering of the nuclear threshold, the CNI may be an equally important aspect of recognizing and preventing nuclear escalation in a conventional conflict. Regardless, the requirement that regional combatant commands and STRATCOM take a more integrated approach to the risks of conflict with states like Russia, China, and North Korea from both a deterrence and warfighting perspective remains vital.

It is also worth further considering the prospects of integrated arms control. The Biden administration has set high goals for revitalizing arms control while also reducing nuclear risks and the role of nuclear weapons. Integrated deterrence requires not only a holistic approach to developing deterrence capabilities, but it also rests upon an integrated approach to limiting arms racing and reducing the risks and consequences of war. Integrated deterrence must go hand in hand with integrated arms control to be effective. Taking a comprehensive approach to security by advancing both arms control and deterrence will be vital for future conflict and cooperation with China and Russia.

Conclusion

Early indications suggest that the Biden administration will reprioritize arms control and recommit to genuine multilateralism as a source of security, cooperation, and risk reduction. Restarting essential, if very challenging, negotiations in Geneva regarding Iran's nuclear program and the JCPOA follow-on; President Biden's participation in June NATO leaders' summit and follow-on bilateral summit with President Putin; successful conclusions of long overdue cost-sharing agreements for U.S. forces in the Republic of Korea, and outreach to North Korea to reopen lines of communication on their nuclear and missile programs all suggest a promising direction for U.S. nuclear policy even if much hard work lies ahead. Next steps will need to consider additional thorny arms control issues surrounding sub-strategic nuclear weapons; intermediate-range delivery systems; long-range precision strike; missile defenses; and growing strategic risks associated with cyber, space, and artificial intelligence. Here, the disarmament wing of nuclear policy experts have every reason to feel encouraged.

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When it comes to U.S. nuclear modernization, it seems that the deterrence side of the nuclear policy spectrum should also begin to breathe easier. Strong statements in favor of maintaining the triad of nuclear delivery systems and funding for these programs through the FY22 budget suggest that future policy reviews are more likely to result in marginal tweaks than radical shifts. It remains to be seen if the proposed sea-launched nuclear cruise missile and some of the warhead development and life extension programs—some of the relatively few additions the Trump administration made to the nuclear modernization program first developed by the Obama administration—survive this process into FY23 when costs could be expected to grow. Even so, accusations that the Biden administration has doubled down on the Trump administration’s nuclear policy and posture seem quite overstated and **certainly premature**. Changes in nuclear posture can and should involve close consultation with allies and cooperation with Capitol Hill, where, despite a vocal minority of opponents, nuclear modernization continues to have fairly strong bipartisan support.

Perhaps most importantly, the tone and rhetoric from the new administration, from both an arms control and deterrence perspective, has shifted significantly. Gone are the days of highly escalatory rhetoric, talk of competing nuclear buttons, and provocative, if empty, threats. Back are the days of normalized processes, coordinated statements, multilateral negotiations, and close cooperation with allies. Those developments should be welcomed even if they are accompanied by policy shifts that are somewhat slower to develop and more moderate in outcome than some might desire. Eventual decisions will probably have something to please, and disappoint, everyone. Compromise is hard in a field that is shaped by ideological polarization, and moderation has become an increasingly lonely path. But it looks like that is where we are headed, and President Biden is leading the way.

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