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The U.S. Needs a New ICBM Now

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The United States relies on nuclear weapons to deter adversaries from attacking us and our allies and to assure allies that we will stand by our security commitments to them. While 21st Century strategic deterrence and assurance strategies must be tailored to a larger number of independent actors and be built on a broad array of capabilities and elements of U.S. power, nuclear weapons remain foundational in all our national security calculations. History shows that nuclear weapons provide a unique contribution to the highest U.S. national security priority, the prevention of war and attacks on the United States and allies. As the late renowned professor Bernard Brodie observed decades ago, “We have ample reason to feel now that nuclear weapons do act critically to deter wars between the major powers, and not nuclear wars alone but any wars.”¹

Since the early 1960s, U.S. strategic deterrence has been based on a triad of nuclear-capable ballistic missile submarines (SSBNs), land-based intercontinental ballistic missiles (ICBMs), long-range heavy bombers, and a supporting command, control, and communications (C3) system. Each leg of the U.S. nuclear triad contributes uniquely to deterrence. Submarines at sea are the most survivable, bombers are the most flexible, and ICBMs are the most responsive. Together, the three legs of the triad provide unparalleled support for deterrence; there is not a more effective way to meet our deterrence objectives. As seven other former commanders of United States Strategic Command and I wrote in early 2017: “The combined capabilities of the triad provide the president with the mixture of systems and weapons necessary to hold an adversary’s most valuable targets at risk, with the credibility of an assured response if needed – the essence of deterrence.”²



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The nuclear triad has enjoyed bipartisan support in the United States for many decades. In 2010, during New START deliberations, Congress and the Obama administration reached a consensus to modernize all three legs of the nuclear triad and the critically important nuclear C3 system. That consensus continued under the Trump administration. As a result, after years of deferred investment, replacement bomber and submarine programs are proceeding and nuclear C3 is receiving much needed and long overdue attention. But recently, it seems that the program to replace the aging ICBM system is being called into question or deferred by endless studies, cost concerns, industry squabbles, and a sense in some quarters that ICBMs are no longer needed.

In my view, delaying or deferring ICBM modernization threatens the enduring value of the triad and risks compromising the foundation of U.S. strategic deterrence and allied assurance. Land-based ICBMs remain as critical today for these objectives as they were during the Cold War, and the need to retain and recapitalize them without delay is based on the sound strategic contributions they make. Specifically:

- **ICBMs provide the U.S. with responsive deterrence options that otherwise would not be available.** Dispersed in secure underground launch facilities, ICBMs can hold an adversary's key targets at risk within minutes of a presidential command. While no U.S. nuclear weapon is targeted on another country today (ICBMs are targeted against broad open ocean areas), ICBMs can be retargeted very rapidly in response to emerging crises or warning of attack and can be used singly, in small numbers, or in large options. Single-warhead ICBMs allow planners to adjust quickly to changes in enemy forces or targets. Because ICBMs are continuously under secure control, in a high state of readiness, and have assured connectivity to the president, the U.S. has a prompt response capability that can help deter a wide variety of extreme threats--to include an unlikely, but still possible, surprise nuclear attack.
- **The ICBM force introduces a difficult set of problems to enemy attack planning, and thus helps to deter enemy attack.** Russia remains the only potential adversary that could attack the U.S. homeland in a massive way. To do so, Russian planners would have to contend with 400 operationally deployed ICBMs, in addition to the other two triad legs. They could ignore the U.S. ICBM force (assuming it would be launched on warning) or try to destroy it on the ground before it could be launched—employing their most capable weapons to attack America's single-warhead ICBMs. But either approach would carry the enormous risks and potential costs for Moscow that help to ensure the deterrence of any such attack.



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- **Neither China nor any other rising nuclear-armed adversary can meaningfully threaten the current U.S. ICBM force without a large increase in force structure and improvements in their hard target kill capabilities.** However, if the U.S. ICBM force were retired, an enemy's attack planning against the United States would become dramatically easier; Russia or China could use a relatively small-scale attack force within their current means to strike at the remaining limited number of nuclear-related strategic targets in the U.S. In the absence of U.S. ICBMs, others could be motivated to build such a force as well.
- **ICBMs have additional importance today that wasn't envisioned during the Cold War.** Not only is today's triad far smaller than during the Cold War, it is configured differently than it was at that time. At the end of the Cold War, President George H. W. Bush removed heavy bombers and supporting aerial refueling tankers from their daily nuclear commitment, which means on a day-to-day basis the bomber leg of the triad is no longer loaded and poised to take off with nuclear weapons. In essence, the U.S. now relies on a relatively small dyad of ICBMs and SSBNs to meet daily deterrence requirements. The U.S. still has the classic nuclear triad with all its benefits, but only when the president orders the bombers to be readied for nuclear use ("generated" in nuclear parlance). ICBMs and SSBNs together have allowed the bombers and tankers to be released for use by military commanders with great effect in a wide variety of conventional missions. This has raised the importance of ICBMs as a mainstay of deterrence, as a hedge against unforeseen technical problems or geopolitical events, and as an enabler for other operational needs such as adjusting at-sea operations of the SSBN fleet when needed for major submarine maintenance or modernization.
- **Retiring ICBMs and leaving the U.S. with SSBNs alone for daily deterrence as some suggest means we would go into an uncertain future relying on only a single nuclear platform (SSBNs) and sea-launched ballistic missile (Trident D-5) to meet our deterrence and assurance needs, unless heavy bombers are returned to nuclear alert.** The U.S. is modernizing a nuclear deterrent force that must endure for decades to come. While I have great confidence in the SSBN force, a day-to-day submarine "monad" introduces the unprecedented and unacceptable risk that a single-point failure or advancement in enemy anti-submarine capability would seriously degrade the daily deterrent. The absence of the U.S. ICBM force could indeed encourage an opponent to focus ever greater resources on anti-submarine capabilities in a bid to escape the constraints now provided by U.S. deterrence capabilities. Addressing that risk without ICBMs would require the U.S. to either return bombers to nuclear alert duty as a complement (and hedge) to the SSBNs or return them to nuclear duty after an issue arises; either move would create visible signals and carry its own risks and costs. Significantly, bombers and tankers re-committed to the day-to-day nuclear deterrence mission would not be available to project conventional military power (an essential role to counter adversaries deploying anti-access strategies);



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nor would they be available to provide conventional options intended to reduce the role of nuclear weapons and strengthen strategic deterrence below the nuclear threshold.

- **ICBMs have not outlived their usefulness nor does having them present more security risks than benefits.** Critics contend that ICBMs are “Cold War relics” and that they increase the likelihood of miscalculation because they are “vulnerable” and on “hair trigger alert”. Neither assertion is valid. ICBMs remain an essential contributor to deterrence as a key element of both a day-to-day dyad and a fully generated triad. And, as a U.S. Department of State report during the Obama Administration emphasized, “U.S. nuclear forces are not on hair-trigger alert.”³ Layers of safeguards are in place to prevent unauthorized or inadvertent use of all U.S. nuclear weapons with ICBMs among the safest and most secure. The U.S. has revised contingency plans, adjusted weapon loading, refined response procedures, upgraded warning systems, and implemented other steps to increase decision time to mitigate any “use or lose” pressures on decision makers.
- **ICBM modernization is long overdue.** I have participated in numerous studies and reviews that show we are well beyond the time to recapitalize the ICBM force and that further life extensions are insufficient. The Minuteman ICBM system was originally fielded in the early 1960s and various components have undergone life extension programs over the ensuing decades. The system remains combat ready but is difficult to sustain, has long ago passed the end of its design life, and is rapidly approaching the inevitable end of its service life. In overall system terms we have already delayed or deferred ICBM modernization for decades. For example, no major upgrades have occurred to the ICBM command and control and ground support systems since the 1980s while new threats like cyber weapons and improved enemy missile defenses have emerged and must be addressed.
- **The U.S. can afford to modernize its ICBM force.** Excessive cost is frequently cited as a reason to delay or reject ICBM modernization. Triad and nuclear C3 modernization costs money, but the programs are clearly affordable given the high priority of nuclear deterrence and the consequences of its failure. As General Mark Milley, then-Chief of Staff of the Army, has said: “The only thing more expensive than deterrence is actually fighting a war, and the only thing more expensive than fighting a war is fighting one and losing one.”⁴ Recapitalizing the triad should not be a competition for resources among its legs (nor a competition with conventional force needs); rather it should be a recognition of the synergistic contribution of all three legs (and nuclear C3), the top national priority of nuclear deterrence, and an appreciation that investment in nuclear modernization represents a small fraction of defense spending (between 6-7% of the DOD budget at its height according to a variety of open sources). There is room in the annual defense budget for ICBM modernization; if not, Congress should fund the triad and nuclear C3 modernization separately as a national program outside the regular defense budget.



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The U.S. faces far more diverse security problems and uncertainty than it did during the Cold War and the threats are growing, including nuclear. Russia and China seek to change the international order and have aggressively modernized their nuclear arsenals as part of strategies designed to diminish U.S. power and prestige, coerce our allies, and reduce our global influence. North Korea has acquired nuclear weapons and others have expressed interest in pursuing nuclear weapons programs.

The great paradox of the nuclear age remains with us; in order to prevent the use of nuclear weapons our deterrence threats must be credible. Along with the rest of the triad, ICBMs continue to provide credible deterrence that ensures our national security as well as the security of our allies and partners. New technologies and approaches are available to keep ICBMs viable and affordable well into the future. Further delay is unacceptable – it's time to move out on a new ICBM.

1. Bernard Brodie, *War and Politics* (New York, Macmillan Publishing Company, 1973), p. 430.
2. Gen. C. Robert Kehler, Gen. Larry D. Welch, Adm. James O. Ellis, Gen. Kevin P. Chilton, Adm. Cecil D. Haney, Adm. Henry G. Chiles, Gen. Eugene E. Habiger, Adm. Richard W. Mies, Open Letter, "The U. S. Nuclear Triad Needs an Upgrade," *The Wall Street Journal*, 12 January 2017, p. A17.
3. U.S. Department of State, *U.S. Nuclear Force Posture and De-Alerting, Fact Sheet*, Bureau of Arms Control, Verification, and Compliance, December 14, 2015, p. 1.
4. Quoted in John McCain, U.S. Senate Committee Armed Services, *Restoring American Power: Recommendations for the FY2018-FY2022 Defense Budget*, January 16, 2017, available at <https://www.hsdl.org/?view&did=798107>.

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