

Dangerous Nuclear Policy Idea No. 4: Defunding the Nuclear Sea-Launched Cruise Missile

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KEY TAKEAWAYS

The 2018 Nuclear Posture Review recommended restoring the sea-launched cruise missile-nuclear (SLCM-N) in light of Russia's and China's growing nuclear forces.

Although the Biden Administration requested funding for SLCM-N research and development and for an accompanying warhead, its fate is ultimately uncertain.

The U.S. must respond to the drastic change in nuclear threat, and the modest addition of the SLCM-N would fill a critical gap in nuclear deterrence capabilities.

In response to Russia's and China's advancing regional, non-strategic nuclear capabilities, the 2018 Nuclear Posture Review (NPR) recommended restoring the sea-launched cruise missile-nuclear (SLCM-N), which the Department of Defense envisions deploying on destroyers or attack submarines.¹ The United States previously deployed an SLCM-N called the Tomahawk Land Attack Missile-Nuclear (TLAM-N) during the Cold War but has since retired the capability.² The SLCM-N would provide a regionally present, sea-based, survivable option to fill a gap in America's nuclear deterrence capabilities and allied assurance commitments.

The Biden Administration's fiscal year (FY) 2022 budget request included \$5.2 million for SLCM-N research and development and \$10 million for an accompanying warhead, and the House and Senate

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Armed Services Committees authorized this funding.³ However, the ultimate fate of the SLCM-N is uncertain; former Acting Navy Secretary Thomas Harker had directed the Navy to defund the SLCM-N for FY 2023, and the House Appropriations Committee's defense bill for FY 2022 proposed to defund the program.⁴

Given the rising threat, the Biden Administration should continue to pursue the SLCM-N, and Congress should provide the necessary funding for the SLCM-N both in FY 2022 and in future years.

Why Defunding the SLCM-N Is Dangerous

The United States faces an unprecedented nuclear threat at the non-strategic or regional level from a growing imbalance in regional nuclear forces between the United States and its adversaries. Russia is adding to its stockpile of at least 2,000 non-strategic nuclear weapons that are not constrained by the New Strategic Arms Reduction Treaty (New START). They range from short-range missiles to anti-ship cruise missiles, torpedoes, artillery, and potentially the defensive S-400 system.⁵ By comparison, the United States deploys only about 200 non-strategic nuclear weapons. According to the 2018 NPR, Russia "mistakenly assesses that the threat of nuclear escalation or actual first use of nuclear weapons would serve to 'de-escalate' a conflict on terms favorable to Russia."⁶

China is also qualitatively advancing its arsenal of regional nuclear forces as part of its extraordinary nuclear expansion. Its medium-range and intermediate-range missiles can strike U.S. assets in the region with precision, enhancing China's ability to coerce the United States during a crisis.⁷

China's and Russia's nuclear buildups threaten strategic stability. Their expanding and diversifying arsenals may provide both nations with options to escalate conflicts in novel ways to which the current U.S. nuclear posture would be challenged to respond. This trend erodes deterrence; China and Russia could be more willing to take risks or even strike first as the credibility and efficacy of a U.S. response diminishes.⁸

The 2018 NPR proposed the SLCM-N as a response to this growing threat. Defunding this effort is dangerous for the United States because it:

- **Foregoes a capability that the United States needs to improve deterrence of increasing regional nuclear threats.** The United States faces the major risk that Russia or China may not perceive current U.S. nuclear capabilities as credible responses to limited nuclear employment in a conflict. The SLCM-N has three attributes that complement existing nuclear capabilities to enhance deterrence.

First, the SLCM-N can be deployed in theaters of conflict on destroyers or attack submarines, providing a regionally present complement to strategic systems. The United States may be confident that it would respond to any nuclear attack with its existing strategic systems, like intercontinental-range ballistic missiles or submarine-launched ballistic missiles (SLBMs). But what matters for deterrence is what adversaries perceive, and their strategies and regional force buildups indicate that both Russia and China perceive the United States to be reluctant to retaliate against a limited strike using a strategic nuclear weapon, which may disproportionately escalate the conflict, and instead back down from a confrontation.⁹ The ability to deploy the SLCM-N on a non-strategic system directly to the European and/or Indo-Pacific theaters bolsters deterrence by providing a more proportional threat to limited nuclear use.

Second, because the SLCM-N is sea-based, it adds a more survivable option to U.S. capabilities below the strategic nuclear threshold. Currently, the only U.S. systems that can be forward deployed are air-based. In Europe, the United States forward deploys B-61 gravity bombs, but their storage locations are known and vulnerable to attack. In the Indo-Pacific, the United States does not forward deploy any nuclear weapons to counter the growing Chinese nuclear threat. The United States can send nuclear-capable bombers to both regions during a crisis, but doing so requires long flight times and avoidance of advancing air defenses. In contrast, attack submarines (or even destroyers) are inherently more survivable and can operate in regional seas during both peacetime and crises. Expanding response options to include a sea-based capability is essential to counter the growing regional threats, especially in the Indo-Pacific.

Third, the SLCM-N's cruise missile trajectory bolsters the U.S. ability to hold defended targets at risk by flying at low altitudes and better avoiding adversary air and missile defenses. Especially as adversaries continue to advance these defenses, for deterrence to be effective, the United States must ensure that it can credibly hold targets at risk. The SLCM-N therefore complements U.S. ballistic missiles—the W76-2 low yield weapon in particular—by forcing the adversary to contend with missiles that are able to fly on both trajectories in addition to missiles launched from both air and sea.¹⁰ Given the rapidly advancing threat, taking action now to complicate adversary planning is essential.

- **Foregoes a capability that would strengthen allied assurance commitments.** Allies may also question the credibility of a U.S. response to limited employment of nuclear weapons using America’s high-yield, strategic nuclear forces. They may question U.S. assurance commitments in general should the United States ignore the growing disparity with Russia and China. A nuclear capability that can be deployed in their own regions can help to assure allies that the United States is committed to the extension of its nuclear umbrella. Additionally, because they are sea-based, SLCM-Ns can provide this benefit without the need for additional basing requirements that would likely provoke domestic protest.
- **Cedes leverage for arms control.** The 2018 NPR suggested that the SLCM-N could provide an incentive for Russia to negotiate a reduction of its non-strategic weapons stockpile, which grows unconstrained by New START.¹¹ Just as U.S. deployment of Pershing II intermediate-range ballistic missiles in Europe led to the Intermediate-range Nuclear Forces Treaty in 1987, SLCM-N deployment—or even development—might help to bring Russia to the negotiating table. The SLCM-N might have a similar impact on China, which thus far has refused to participate in arms control discussions.

Defunding the SLCM-N—especially now that the Biden Administration included funding in its budget request—would make a concession to Russia and China without the United States receiving anything in return and remove a potential incentive for Moscow and Beijing to negotiate. Moreover, failing to respond to either nation’s nuclear buildups will likely reinforce their view that expanding their nuclear forces provides them a military advantage, which only further diminishes the likelihood of meaningful arms control in the future.

Why Critics’ Objections Do Not Justify Defunding the SLCM-N

The SLCM-N is not redundant. Critics argue that the existing nuclear triad is enough to deter the growth in China’s and Russia’s nuclear capabilities, especially since the United States deployed the W76-2 low-yield SLBM in 2020.¹² However, keeping U.S. force posture “as is” will allow this imbalance to persist in regional nuclear forces—which is profoundly destabilizing. The SLCM-N provides a unique capability to deter this growth in

threat because it is non-strategic, is not limited by New START's numeric caps, and can be forward deployed to deter adversary regional systems.

The W76-2 provided a limited capability to have an option for a more proportional response to low-yield nuclear use in the short term, but more is needed to address the ongoing numeric growth in Chinese and Russian nuclear arsenals. Since it is not treaty-constrained, the SLCM-N enables the United States to add more deployed nuclear systems in the longer term to ensure that it maintains sufficient capacity to deter the growing threat.¹³

The SLCM-N will not be destabilizing. Critics claim that because the United States also deploys conventionally armed cruise missiles, Russia or China will confuse a U.S. conventional cruise missile with a nuclear one and launch a nuclear attack in response.¹⁴ However, this logic that a warhead can be characterized based on its cruise missile trajectory is fundamentally flawed—and non-unique to the SLCM-N—when any delivery system can technically carry a nuclear payload.¹⁵ In an escalating conventional conflict, a Russian or Chinese nuclear response after a U.S. cruise missile launch is also implausible. Since Russia and China have second-strike options available after a U.S. missile launch, preemptively launching nuclear weapons and risking nuclear retaliation when the missile launch might have been conventional would not be in their interests.

The SLCM-N will not start an arms race. Both Russia and China are already expanding their nuclear forces, as well as developing new and novel nuclear systems.¹⁶ The SLCM-N is a modest response to these significant expansions—and would not be the cause of them. Senior military leaders have also consistently emphasized that the United States does not intend to match either nation system-for-system; however, doing nothing means ceding an advantage to adversaries and reducing the ability of the U.S. to deter nuclear weapons use.¹⁷

Deployment will be difficult but not infeasible for the Navy. Deploying the SLCM-N will require trade-offs for the Navy, including capacity issues and costs of certifying both ships and personnel for the nuclear mission. But the Navy can consider potential arrangements to find an amenable concept of operations for SLCM-N deployment. For instance, the Navy might retrofit a subset of its attack submarines to carry SLCM-Ns in addition to conventional weapons, allowing those ships to continue their conventional missions, as it did during the Cold War.¹⁸ In fact, much of the SLCM-N's contribution to deterrence could be achieved with a relatively modest deployment, creating another opportunity to manage trade-offs. Challenges to deploying the SLCM-N are ultimately not insurmountable, and sea-based deployment avoids the issue of basing requirements.

The SLCM-N is not too costly. The SLCM-N is estimated to cost about \$9 billion over 10 years based on the cost of the LRSO (Long Range Stand-off weapon), but the Navy can likely minimize costs by utilizing existing and previous technologies.¹⁹ As former Secretary of Defense James Mattis has stated, “[B]y going back to a weapon that we had before, there is a fair amount of already sunk technology costs that we will not have to redo...”²⁰ The cost of the SLCM-N’s warhead will also be relatively low since the missile will use the W80-4, already being life-extended for the LRSO.

What the Administration and Congress Should Do

The Biden Administration should:

- **Continue to pursue development of the SLCM-N as part of the U.S. nuclear posture.** The Administration’s ongoing nuclear posture review would logically include the SLCM-N if the review remains objective and threat-driven. Foregoing development of the SLCM-N would require finding an alternative to respond to the drastic change in the threat environment.

Congress should:

- **Provide the Administration’s full request for the SLCM-N and its accompanying warhead in FY 2022.** Congress should continue to support the program through its acquisition cycle while carefully monitoring program performance and cost.

Conclusion

Ultimately, the United States must adjust its force posture in some way to respond to the drastic change in the nuclear threat. The modest addition of the SLCM-N could have a significant impact on U.S. national security.

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Endnotes

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7. See U.S. Department of Defense, Office of the Secretary of Defense, *Military and Security Developments Involving the People's Republic of China, 2020: Annual Report to Congress*, pp. 55–56, <https://media.defense.gov/2020/Sep/01/2002488689/-1/-1/2020-DOD-CHINA-MILITARY-POWER-REPORT-FINAL.PDF> (accessed September 20, 2021), and Hans M. Kristensen and Matt Korda, "Chinese Nuclear Forces, 2020," *Bulletin of the Atomic Scientists*, Vol. 76, No. 6 (2020), pp. 443–457, <https://www.tandfonline.com/doi/full/10.1080/00963402.2020.1846432> (accessed September 20, 2021).
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