Next Steps in Homeland Missile Defense

David J. Trachtenberg



Next Steps in Homeland Missile Defense

David J. Trachtenberg

National Institute Press®

Published by National Institute Press® 9302 Lee Highway, Suite 750 Fairfax, Virginia 22031

Copyright © 2025 by National Institute Press®

All rights reserved. No part of this book may be reprinted or reproduced or utilized in any form or by an electronic, mechanical or other means, now known or hereafter invented, including photocopying, and recording or in any information storage or retrieval system, without permission in writing from the publisher. The views expressed in this *Occasional Paper* are those of the author(s) alone and do not represent any institution with which they are or have been affiliated.

National Institute for Public Policy would like to thank the Sarah Scaife Foundation for the generous support that made this *Occasional Paper* possible.

Cover design by Stephanie Koeshall.

Table of Contents

Executive Summary	V
Introduction	1
Evolution of the Threat	3
From Mutual Vulnerability to Defense Against Rogue State Missile Threats	7
The Benefits of Homeland Missile Defense	11
The Role of Congress	15
Adapting Existing Law to Current Realities	19
The Advent of Advanced Technology: From Brilliant Pebbles to Starlink	23
Investing Resources	30
Avoiding the Arms Control Trap	32
Bureaucratic and Organizational Impediments to Progress	35
Recommendations and Near-Term Courses of Action	37
Conclusion	49
About the Author	53

Executive Summary

Among the more consequential decisions the second Trump Administration must confront is whether to allow America's continued vulnerability to coercive nuclear threats from China and Russia to remain unchallenged or to take steps to mitigate and alleviate the threats to the U.S. homeland posed by both countries' growing nuclear arsenals.

Both China and Russia are seeking to overturn the established international order and displace the United States from the position of global dominance it has held since the end of World War II. And the growing entente between Beijing and Moscow, augmented by increasing cooperation and collaboration with the likes of North Korea and Iran, suggest that the United States has entered a period of unprecedented vulnerability to the whims of malignant actors. In this dangerous environment, President Trump must seriously rethink whether it makes sense to continue to leave the American people vulnerable to Chinese and Russian nuclear threats or whether it is time to move forward—deliberately and with all due urgency—to build and deploy defenses that can not only help deter potential aggression against the U.S. homeland but can also help protect Americans from nuclear Armageddon should deterrence fail.

It will take determined leadership and a solid commitment to overturn obsolete Cold War orthodoxy — accompanied by adequate funding to translate policies into programmatic reality—to implement the necessary adjustments to the U.S. missile defense posture, and to do so with the urgency required. President Trump has already taken the first step in this direction by issuing an Executive Order on January 27, 2025, calling for an "Iron Dome for America" and the deployment of a "next-generation missile defense shield" to defend the United States against all types

of missile attacks from both rogue states and peer and nearpeer adversaries. This now must be followed by the allocation of sufficient budgetary resources to implement the president's direction and to do so with alacrity.

Evolution of the Threat

Over the past several decades, the missile threat to the United States has evolved in ways that complicate defense of the homeland. Ballistic missiles have been seen as the weapon of choice for states seeking to reign terror upon an adversary, as they are difficult to counter. Today, more than 30 countries possess ballistic missiles of varying ranges and capabilities. Yet, the ballistic missile threat has been augmented by newer, more sophisticated, types of missiles that are even more difficult to counter. These include hypersonic missiles, cruise missiles, and other types of unmanned aerial systems like drones.

The growing threat of faster, longer-range, and more deadly ballistic, cruise, hypersonic, and other unmanned missiles and systems means that the United States is increasingly at risk of more complex missile attacks, including those employing sophisticated countermeasures. Consequently, missile defense of the U.S. homeland must address these multiple types of threats, either singly or in combination, on an urgent basis.

From Mutual Vulnerability to Defense Against Rogue State Missile Threats

During the Cold War, U.S. policy makers assumed that the best way to prevent nuclear war was to remain vulnerable to the Soviet Union's nuclear weapons. Any U.S. action that would appear to the Soviets to undermine their own nuclear deterrent was considered provocative and destabilizing. This was the environment that led to the negotiation of the

Anti-Ballistic Missile (ABM) Treaty in 1972—a treaty that was intended to codify a mutual hostage relationship between the United States and Soviet Union and a relationship that became known as Mutual Assured Destruction—in order to decrease the risk that either side would strike the other first, given the risk of retaliation in kind.

The ABM Treaty prohibited nationwide missile defense, and the United States quickly abandoned its sole missile defense site at Grand Forks, North Dakota. It was not until 30 years later that President George W. Bush announced the U.S. withdrawal from the ABM Treaty in order to allow a limited defense against possible rogue state (e.g., North Korean) missile attack. Despite the U.S. withdrawal, American missile defense policy has remained relatively consistent throughout subsequent administrations. The Obama Administration continued to foreswear development of U.S. missile defense capabilities that could be useful to deter or defeat coercive missile strikes from either China or Russia in the belief that neither great power posed a significant nuclear threat to the United States and that both Moscow and Beijing would adopt a more benign security posture and take a more cooperative stance toward the United States. The first term Trump Administration's missile defense policy also acknowledged that the rudimentary U.S. missile defense capability was insufficient to defend the homeland against the larger and more sophisticated ballistic missile arsenals of Russia and China. The Biden Administration's refusal to adapt U.S. missile defense policy to the emerging Russian and Chinese missile threats it identified highlighted a significant disconnect between an acknowledgment of those threats and the U.S. response. It now falls to the second Trump Administration to correct a Cold War policy that has survived through the post-Cold War era and is in need of significant modification.

The Benefits of Homeland Missile Defense

Despite the views of those who still cling to the erroneous Cold War belief that homeland missile defenses would be destabilizing, provocative, prohibitively technologically infeasible, and strategically unnecessary, there are numerous benefits that would accrue to the United States by having a more robust and resilient defense against missile attack. In the face of growing nuclear threats, an expanded U.S. homeland missile defense posture makes strategic sense. It would complicate the attack calculus of any aggressor contemplating a potential attack against the United States. It would also diminish the value of adversary coercive nuclear threats or threats to engage in limited nuclear strikes. Moreover, given the heightened threat environment, there is always the risk that deterrence might fail – by design, accident, or miscalculation.

Protecting the homeland against the failure of deterrence by the deployment of more robust active missile defenses would not only save lives but is the morally justifiable and prudent course of action in an increasingly dangerous and uncertain geo-strategic environment.

The Role of Congress

The U.S. Congress has responsibility for authorizing and appropriating funds for defense programs. Yet, the Congress also has the power to create or modify policy and has done so numerous times with respect to U.S. missile defense policy. Despite repeated legislative language over the years favoring effective, layered missile defense capabilities and multiple expressions of congressional support for more robust homeland missile defense capabilities, little has been done to implement congressional directives. Although some upgrades have occurred and additional more modern interceptors are planned, the U.S.

homeland missile defense program remains essentially unchanged from the initial deployment of 44 Ground-Based Interceptors (GBIs) that began in 2004. While some capability enhancements have been made, protection of the U.S. homeland from ballistic missile threats remains focused on a limited number of terrestrial-based mid-course and terminal phase interceptors. The United States has not moved forward with a space-based intercept component to counter ballistic missiles in their boost or ascent phases. Nor (with the exception of support for defense against cruise missiles)¹ has it sought to develop or deploy more capable active defenses against peer nuclear missile threats.

Enacted legislation is not advisory and must not be treated as such. It is time for Congress to step up to the plate and demand that the executive branch fulfill the legislative mandates directed by Congress and signed into law by the president. This is especially true when those mandates involve the protection of the nation and its citizens, and the executive branch openly declares that defense of the homeland is the nation's top priority.

Adapting Existing Law to Current Realities

Some may question whether congressional statements of policy have any practical effect on U.S. missile defense programs, as it is generally assumed that the executive branch establishes national security policy and decides which specific programs to pursue. However, once enacted as law, congressional policy statements are as legally binding as the other legislative provisions that provide

¹ Robert Soofer, et al., "'First, we will defend the homeland': The case for homeland missile defense," Atlantic Council, January 4, 2025, available at https://www.atlanticcouncil.org/in-depth-research-reports/report/first-we-will-defend-the-homeland-the-case-for-homeland-missile-defense/.

funding, establish requirements, and provide guidance and direction to the Department of Defense.

Others may argue that a congressional statement of policy simply reflects current practice rather than establishing policy direction in perpetuity. In other words, stating that it is U.S. policy to rely on nuclear deterrence to address Russian and Chinese strategic missile threats to the U.S. homeland is nothing more than an acknowledgement of existing reality, similar to the language used in the 2019 Missile Defense Review (MDR). However, the 2019 MDR was not a legally binding document while the annual National Defense Authorization Act (NDAA) is U.S. law. Moreover, unlike general policy statements that express the sentiments of the legislative branch through non-binding resolutions, codifying a policy in law means that the policy remains valid and legally binding unless and until it is amended or otherwise overturned by subsequent legislation.

If Congress mandates that the United States will rely on deterrence rather than active defense to protect the homeland against strategic missile threats from peer nuclear adversaries, then industry may be reluctant to develop capabilities that are perceived as inconsistent with policy guidelines established by law. In this way, a simple statement of policy, embedded in and codified in law, may have an unintentional or inadvertent negative impact on both industry's willingness to produce capabilities that are perceived as contrary to legal guidance and the government's willingness to ask industry to do so.

This congressional policy statement may also become an issue as U.S. missile defense capabilities seek to keep pace with the development of more sophisticated rogue state missile capabilities, in that improved U.S. missile defenses designed to defeat increasingly sophisticated rogue state missile threats may also have some latent capability against peer nuclear threats. If U.S. policy eschews active defenses against peer nuclear missile threats, will industry be willing

to improve systems to defend against rogue state threats if doing so will also provide some capability to counter Russian or Chinese strategic missile forces in contravention of U.S. policy established in law?

Congress should clearly articulate, through the NDAA process, a new direction for U.S. missile defense policy that acknowledges the need to defend the homeland not only against rogue state nuclear threats but against more significant and sophisticated peer nation nuclear missile threats. Statutory language must make it clear that it is U.S. policy to defend the nation by providing for a layered defense against all types of missile threats, launched from any location, in all stages of flight. Such policy language is a necessary prerequisite and would serve as an important catalyst to the budgetary and programmatic decisions required to protect the U.S. homeland from expanding missile threats.

The Advent of Advanced Technology: From Brilliant Pebbles to Starlink

The United States relies on space for a multitude of societal needs ranging from satellites that provide everything from telecommunications to navigation to intelligence and surveillance activities, to position, navigation, and timing in support of military operations. As such, space is becoming increasingly contested and is now considered a warfighting domain.

The demise of the ABM Treaty in 2002 opened the door to the development and deployment of more technologically sophisticated missile defense capabilities no longer prohibited by the treaty. Nevertheless, despite U.S. technological advances across the board, the United States has limited its missile defense efforts to improvements in sensors, the Command, Control, Battle Management, and Communications (C2BMC) system, and the deployment of

terrestrial interceptor systems—primarily focusing on intercepting incoming ballistic missiles in their mid-course or terminal phases of flight from the land and from the sea.

The benefits of developing a space-based intercept capability are numerous. It would allow longer-range missiles to be countered in their boost- or ascent-phase, when they are most vulnerable due to highly visible signatures while their engines are burning. A boost- or ascent-phase defense would also allow the destruction of missiles over enemy territory rather than over U.S. soil. This, in itself, could serve as a powerful deterrent to missile attack.

In addition to the development of space-based kinetic and non-kinetic intercept capabilities, the United States should move forward expeditiously with improvements to both terrestrial and space-based sensors that can provide early warning and detection of offensive missile launches—whether ballistic, cruise, or hypersonic—as well as improved tracking and discrimination capabilities. The technology has advanced dramatically and a "layered sensor architecture" can enhance the effectiveness of all intercept systems.

As a matter of policy, the Trump Administration should seek expeditiously to implement the president's Executive Order to incorporate space-based kinetic and non-kinetic options into a comprehensive missile defense posture that fulfills the president's earlier commitment to defend the nation against missiles launched from anywhere. Nothing less will address the suite of emerging offensive missile threats to the U.S. homeland.

Investing Resources

Despite repeated assertions that deterring attack on and defending the U.S. homeland is the "top priority" of the Department of Defense, the budget for missile defense

activities has remained relatively constant for many years. In fact, of the \$28.4 billion the Biden Administration requested for missile defense in FY 2025, only \$2.7 billion was requested for homeland missile defense activities—an actual *decrease* from the \$3.3 billion requested in the previous year and a particularly significant decrease given inflation. Most missile defense funding is allocated for defense against non-strategic ballistic missile attacks and for the protection of U.S. deployed forces, allies, and strategic partners.

Likewise, the budget for the Missile Defense Agency (MDA) has remained relatively stagnant for well over a decade, with a relative downward trend in overall MDA funding since 2005. The FY 2025 MDA budget request was \$10.4 billion, roughly a \$500 million decline from the previous year and nearly \$1 billion less than what was planned for FY 2025 one year earlier. As the Senate Armed Services Committee noted, this decrease will negatively impact the ability of the United States to counter hypersonic missile threats, field appropriate directed energy systems, and provide missile defense interceptors with the capability to counter the growing threat from relatively inexpensive unmanned aerial systems.

The proposed U.S. defense budget for FY 2025 is \$883.7 billion. Yet the requested budget for missile defense activities represents only three percent of the overall defense budget request, the MDA budget request is barely one percent of the overall defense budget request, and the amount proposed for the homeland missile defense mission is 0.003 percent of the total. This hardly reflects a level of effort commensurate with what repeatedly is said to be the Department of Defense's "top priority."

The trend in missile defense funding reflects an approach that is anything but serious. U.S. homeland missile defense efforts have essentially been treading water

and have not kept pace with the evolution of missile threats to the homeland. This must change—and quickly.

Avoiding the Arms Control Trap

There are those who still remain wedded to the Cold War proposition that missile defenses are destabilizing and that any enhancements to the U.S. missile defense posture will inevitably prompt adversaries to increase their offensive missile capabilities in accordance with an "action-reaction" dynamic. This thinking ignores historical realities that clearly demonstrate the fallacy of this argument.

It is imperative that the Trump Administration avoid falling into the trap of believing that constraints on U.S. missile defenses will lead either Russia or China to abandon their quests for nuclear supremacy and to agree to additional offensive nuclear arms reductions. Such a belief is not supported by history and ignores the divergent goals and objectives of Moscow and Beijing, both of which seek to displace the United States as the predominant global power and reorient the global geo-political landscape more to their liking.

Bureaucratic and Organizational Impediments to Progress

Progress in expanding U.S. homeland missile defense capabilities has been stymied by outdated concepts of "strategic stability," fealty to arms control agreements, erroneous claims of technological immaturity or impossibility, and legislative restrictions. In addition to these impediments, bureaucratic and organizational roadblocks have created additional challenges.

The Missile Defense Agency has the responsibility to develop and mature various missile defense technologies and systems; however, the procurement, operation, and maintenance of missile defense systems is the responsibility of the individual Services. Yet, the Services have failed to prioritize the homeland missile defense mission over the acquisition of other capabilities seen as more urgent or responsive to existing military requirements. As long as the Services consider the homeland missile defense mission a lower priority than other missions, little progress in bolstering the U.S. homeland missile defense posture can be expected.

In 2019, the U.S. Space Force was created as a separate branch of the U.S. armed forces. Yet, the mission of the Space Force is mostly relegated to space surveillance and domain awareness. Nevertheless, the role of the U.S. Space Force should be elevated by giving it greater responsibility to defend the nation against space-based threats, including long-range missiles that travel through space to attack their targets. This can be done by executive branch action, consistent with the FY 2025 NDAA, and reinforced by congressional authorization and appropriations in the FY 2026 NDAA and Department of Defense Appropriations Act.

Recommendations and Near-Term Courses of Action

In the face of increasingly provocative nuclear threats by Russia and more belligerent behavior by China, coupled with their extensive nuclear weapons buildups, the Trump Administration has a unique opportunity to change the course of American national security policy by moving forward expeditiously to improve the nation's protection against missile threats from U.S. adversaries. Though some actions have long lead times and may not be completed within President Trump's second term, other decisions and actions can be taken now to expedite progress toward

defending the American people against deliberate, accidental, or coercive nuclear threats.

Specifically, they include:

- Directing the full implementation of the president's Executive Order (E.O.) on "The Iron Dome for America" to improve U.S. missile defenses to defend against both rogue state and peer nation nuclear missile threats, including requesting the necessary fiscal resources to implement the E.O. in an urgent manner.
- Avoiding a lengthy and bureaucratic Missile Defense Review, and instead building on the 2019 MDR.
- Acknowledging the importance of a space-based missile defense layer including both sensors and shooters that can counter offensive missiles in their early stages of flight, well before they approach U.S. territory, and requesting the necessary resources to initiate the requisite kinetic and non-kinetic defensive programs.
- Bolstering the missile defense role of the U.S. Space Force and directing the Secretary of Defense to designate the Chief of Space Operations as the senior U.S. official responsible for designing and developing an integrated air and missile defense system for the United States.
- Having Congress amend U.S. missile defense policy in the NDAA to allow for homeland missile defense protection against missiles of any type, in all phases of flight, and regardless of launch location. This includes clearly supporting spacebased missile defense capabilities and revoking any policy statement in law that explicitly or implicitly endorses exclusive reliance on strategic

- deterrence to defend the nation against strategic missile threats from nuclear peer adversaries.
- Directing the deployment of a third ground-based interceptor site in the United States to augment the existing GBI sites at Fort Greely, Alaska and Vandenberg Space Force Base (SFB), California.
- Proceeding with hardware and software upgrades to the 44 currently deployed GBIs to improve their capability to defend against rogue state missile threats from North Korea or Iran.
- Expediting development and deployment of the Next Generation Interceptor (NGI) with multiple kill vehicles as an adjunct to, and ultimately replacement for, GBI.
- Upgrading the SM-3 Block IIA interceptor to provide it with an anti-ICBM capability and restoring production of the SM-3 Block IB for regional defense.
- Deploying Terminal High Altitude Area Defense (THAAD) interceptors as part of a defensive "underlayer" to protect critical installations in the United States, including nuclear command and control sites and selected ICBM deployment locations.
- Employing Unmanned Aerial Systems (UASs) and manned fighter aircraft such as the F-35 with advanced interceptors that can be used for boostphase defense.
- Expediting the development of kinetic and nonkinetic intercept technologies to defeat hypersonic missiles.

Conclusion

Progress in homeland missile defense has been stymied by outdated Cold War notions, declining funding, lack of prioritization, organizational and bureaucratic roadblocks, and ideologically based political opposition. Reluctance to improve active defenses for the nation has been evident throughout successive administrations, both Republican and Democratic. In light of the growing threats to U.S. security from both peer nuclear adversaries and rogue states, the time has come to abandon the outdated thinking that American vulnerability to missile attack is a stabilizing feature of the international environment.

The U.S. homeland is more vulnerable than ever to offensive missile strikes from all kinds of missiles — ballistic, cruise, and hypersonic. America's main rivals are seeking to overturn the existing U.S.-led international order and are using their expanding nuclear weapons capabilities to underpin their more aggressive behavior and coercive threats. Allowing the homeland missile defense status quo to continue is no longer a prudent option—if it ever was.

The Trump Administration now has a unique opportunity to take America's missile defense policy and programs in a new direction. Acknowledging the benefits of protecting the homeland against missile strikes of any kind, launched from anywhere, is the first step. This should be followed by changes in policy guidance and direction from the White House to the Department of Defense that clearly demonstrate that defense of the homeland is a true "top priority." The president should reiterate his earlier calls for a missile defense posture that can effectively "detect and destroy any missile launched against the United States—anywhere, anytime, anyplace."

The administration should then propose to implement the programs identified in this *Occasional Paper* and should provide adequate funding to do so in the president's initial budget request to Congress. In addition, as part of the budget process, the Trump Administration should identify fixes to existing law and propose legislative language to Congress that will remove any confusion or uncertainty over U.S. homeland missile defense policy and the need for a more robust national missile defense effort.

While some programs will take years to come to fruition, decisions can be taken now to move the ball forward. It will take presidential leadership and a serious commitment by senior level appointees to effectuate the necessary changes. Nothing short of this will suffice. It is time to ensure that the United States is not self-deterred from protecting its national security interests by coercive nuclear threats. The time for action is now. Hopefully, the Trump Administration is up to the task.

Introduction

Every new U.S. administration has an opportunity to reassess American national security policy and to make course corrections from its predecessor. The Trump Administration is no exception. Among the more consequential decisions the second Trump Administration must confront is whether to allow America's continued vulnerability to coercive nuclear threats from China and Russia to remain unchallenged or to take steps to mitigate and alleviate the threats to the U.S. homeland posed by both countries' growing nuclear arsenals.

Both China and Russia are seeking to overturn the established international order and displace the United States from the position of global dominance it has held since the end of World War II. China's threats to Taiwan's autonomy remain worrisome and its military expansion is fueling a more aggressive posture both regionally and globally. Russia's full-scale invasion of Ukraine is entering its third year and Russian nuclear threats against the United States and NATO, coupled with a change in Russia's nuclear doctrine to allow for the preemptive use of nuclear weapons in a broader variety of circumstances, portend a greater willingness by Moscow to threaten and coerce the United States into inaction and paralysis by posing greater threats to the U.S. homeland. And the growing entente between Beijing and Moscow, augmented by increasing cooperation and collaboration with the likes of North Korea and Iran, suggest that the United States has entered a period of unprecedented vulnerability to the whims of malignant actors.

In this dangerous environment, President Trump must seriously rethink whether it makes sense to continue to leave the American people vulnerable to Chinese and Russian nuclear threats or whether it is time to move forward—deliberately and with all due urgency—to build

and deploy defenses that can not only help deter potential aggression against the U.S. homeland but can also help protect Americans from nuclear Armageddon should deterrence fail. This paper argues that the latter course is the most prudent and that President Trump has a unique opportunity early on to effect such a course correction in U.S. policy and to explain it clearly to the American people.

Such change will not necessarily be easy to accomplish. Decades of a Cold War mindset have deeply permeated contemporary thinking about missile defenses – so much so that the changes recommended here will likely be criticized as excessive, destabilizing, and provocative. Critics will also argue they are unnecessary, too costly, and liable to spark an arms race. It will take determined leadership and a solid commitment to overturn obsolete Cold War orthodoxy accompanied by adequate funding to translate policies into programmatic reality—to implement the necessary adjustments to U.S. missile defense posture, and to do so with the urgency required. President Trump has already taken the first step in this direction by issuing an Executive Order on January 27, 2025, calling for an "Iron Dome for America," noting that "The threat of attack by ballistic, hypersonic, and cruise missiles, and other advanced aerial attacks, remains the most catastrophic threat facing the United States." The Executive Order calls for deployment of a "next-generation missile defense shield" to defend the United States "against ballistic, hypersonic, advanced cruise missiles, and other next-generation aerial attacks from peer, near-peer, and rogue adversaries."2 This now must be followed by the allocation of sufficient fiscal resources to implement the president's direction and to do so with alacrity.

² The White House, Executive Order, "The Iron Dome for America," January 27, 2025, available at

https://www.whitehouse.gov/presidential-actions/2025/01/the-iron-dome-for-america/.

Evolution of the Threat

Over the past several decades, the missile threat to the United States has evolved in ways that complicate defense of the homeland. Ballistic missiles have been seen as the weapon of choice for states seeking to reign terror upon an adversary, as they are difficult to counter. Today, more than 30 countries possess ballistic missiles of varying ranges and capabilities.3 Yet, the ballistic missile threat has been augmented by newer, more sophisticated, types of missiles that are even more difficult to counter. These include hypersonic missiles, cruise missiles, and other types of unmanned aerial systems like drones. As the 2022 Missile Defense Review noted, "missile-related threats have rapidly expanded in quantity, diversity and sophistication. U.S. national security interests are increasingly at risk from wide-ranging missile arsenals that include offensive ballistic, cruise, and hypersonic weapons...."4 And as one former Biden Administration official put it more starkly in "Offensive congressional testimony, missiles increasingly weapons of choice for Russia, China, North Korea, and Iran, for use in conflict and to coerce and intimidate their neighbors."5

³ Kelsey Davenport, "Worldwide Ballistic Missile Inventories," *Arms Control Association Fact Sheet*, August 2023, available at https://www.armscontrol.org/factsheets/worldwide-ballistic-missile-inventories.

⁴ Department of Defense, 2022 Missile Defense Review, p. 1, available at https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.pdf.

⁵ Testimony of Dr. John Plumb before the Senate Armed Services Committee Strategic Forces Subcommittee, May 18, 2022, available at https://www.armed-

services.senate.gov/imo/media/doc/ASD%20Plumb%20SASC%20SF%20Missile%20Defense%20Written%20Statement%20-

^{%20}May,18%202022 FINAL.pdf.

The utility of ballistic, cruise, and other types of missiles in combat has been demonstrated by their effective use in recent conflicts. For example, Azerbaijan's extensive use of unmanned aerial vehicles or drones in the second war over Nagorno-Karabakh in 2020 led to an impressive victory over Armenian forces. One expert analyst referred to this as "the first postmodern conflict, in that it was the first in which unmanned aircraft overwhelmed a conventional ground force, grinding it down to the point of impotency and paving the way for the Azeri ground forces to roll in and take possession of a strategic chokepoint."

In addition, since its full-scale invasion of Ukraine in February 2022, Russia has launched more than 11,000 missiles at Ukraine, including ballistic, cruise, unmanned aerial vehicles (drones), and hypersonic missiles. In recent months, Russia has fired thousands of cruise missiles against Ukrainian targets, including launching more than 100 cruise missiles and drones in a single attack in December 2023 and again in November 2024. More

⁶ Uzi Rubin, "The Second Nagorno-Karabakh War: A Milestone in Military Affairs," The Begin-Sadat Center for Strategic Studies, *Mideast Security and Policy Studies*, No. 184, December 2020, p. 5, available at https://besacenter.org/wp-content/uploads/2020/12/184web-no-ital.pdf.

⁷ Benjamin Jensen and Yasir Atalan, "Assessing Russian Firepower Strikes in Ukraine," Center for Strategic and International Studies, October 23, 2024, available at

https://www.csis.org/analysis/assessing-russian-firepower-strikes-ukraine.

⁸ See Victoria Butenko, Maria Kostenko, Mariya Knight, Svitlana Vlasova and Christian Edwards, "Russia unleashes biggest air attack on Ukraine since start of full-scale invasion," *CNN*, December 30, 2023, available at https://edition.cnn.com/2023/12/29/europe/ukrainerussia-airstrikes-intl-hnk/index.html; David Brennan, "Russia launches 'massive' drone and missile energy blitz across Ukraine," *ABC News*, November 28, 2024, available at

https://abcnews.go.com/International/russia-launches-massive-drone-missile-energy-blitz-ukraine/story?id=116299874.

recently, Russia targeted Ukraine with a nuclear-capable "Oreshnik" intermediate-range ballistic missile with hypersonic capabilities. According to Vladimir Putin, "The speed of these missiles guarantees that no air defense system, including the advanced ones developed by the Americans, can intercept them. This is excluded."9

The growing threat of faster, longer-range, and more deadly ballistic, cruise, hypersonic, and other unmanned missiles and systems means that the United States is increasingly at risk of more complex missile attacks, including those employing sophisticated countermeasures. As one study concluded:

Defenses for the homeland have largely focused on long-range ballistic threats, while cruise missile defense and other air defense efforts have focused on regional and force protection applications to the exclusion of the homeland. The lingering homeland-regional dichotomy creates a vulnerability that near-peer adversaries are seeking to exploit.¹⁰

Consequently, missile defense of the U.S. homeland must address these multiple types of threats, either singly or in combination, on an urgent basis.

⁹ Ashish Dangwal, "Putin Announces Serial Production Of Oreshnik Hypersonic Missile; Calls It A Weapon With Destructive Power," *The EurAsian Times*, November 30, 2024, available at https://www.eurasiantimes.com/putin-announces-serial-production-of-oreshn/.

¹⁰ Tom Karako, Matt Strohmeyer, Ian Williams, Wes Rumbaugh, and Ken Harmon, *North America Is a Region, Too: An Integrated, Phased, and Affordable Approach to Air and Missile Defense for the Homeland*, Center for Strategic and International Studies, July 2022, pp. X, 1, available at https://csis-website-prod.s3.amazonaws.com/s3fs-public/publication/220714_Karako_North_America.pdf?VersionId=BhI Ka8jHHF kV94NXRMx6D4m2o6LQqUf.

In 2023, the congressionally mandated, bipartisan Strategic Posture Commission concluded that "to date the United States has chosen to not build homeland missile defenses against major powers. U.S. homeland IAMD [integrated air and missile defense] capabilities do not adequately protect the critical infrastructure necessary to project power and avoid coercion in light of growing Russian and Chinese nuclear and conventional strike threats." Consequently, the Commission recommended that the United States "develop and field homeland IAMD capabilities that can deter and defeat coercive attacks by Russia and China," and proposed that:

The Secretary of Defense direct research, development, test and evaluation into advanced IAMD capabilities leveraging all domains, including land, sea, air, and space. These activities should focus on sensor architectures, integrated command and control, interceptors, cruise and hypersonic missile defenses, and area or point defenses. The DOD should urgently pursue deployment of any capabilities that prove feasible.¹³

The Trump Administration should publicly endorse the bipartisan conclusions of the Strategic Posture Commission and move out expeditiously to enhance U.S. missile defense capabilities in light of the growing missile threat to the homeland.

¹¹ Madelyn R. Creedon, Jon L. Kyl, et al., *America's Strategic Posture: The Final Report of the Congressional Commission on the Strategic Posture of the United States*, October 2023, p. 28, available at https://www.ida.org/-/media/feature/publications/a/am/americas-strategic-posture/strategic-posture-commission-report.ashx.

¹² Ibid., pp. X, 72, 105.

¹³ Ibid., p. x.

From Mutual Vulnerability to Defense Against Rogue State Missile Threats

During the Cold War, U.S. policy makers assumed that the best way to prevent nuclear war was to remain vulnerable to the Soviet Union's nuclear weapons. Any U.S. action that would appear to the Soviets to undermine their own nuclear deterrent was considered provocative and destabilizing. This was the environment that led to the negotiation of the Anti-Ballistic Missile (ABM) Treaty in 1972—a treaty that was intended to codify a mutual hostage relationship between the United States and Soviet Union and a relationship that became known as Mutual Assured Destruction—in order to decrease the risk that either side would strike the other first, given the risk of retaliation in kind.

The ABM Treaty prohibited nationwide missile defense, and the United States quickly abandoned its sole missile defense site at Grand Forks, North Dakota. Official U.S. support for the treaty was widespread. In defending it, Henry Kissinger argued that its positive feature was that it gave Soviet nuclear missiles a "free ride" to their American targets. In other words, allowing the United States to remain undefended against Soviet nuclear attack was seen as "stabilizing" and necessary to preserve a "balance of terror."

President Ronald Reagan's desire to transcend the mutual vulnerability relationship between the United States and the Soviet Union led him to propose the Strategic Defense Initiative (SDI). SDI was intended to protect the American homeland from strategic missile attack; yet

¹⁴ Congressional Briefing by Dr. Henry A. Kissinger, printed in *Congressional Record – Senate*, June 19, 1972, p. 21309, available at https://www.govinfo.gov/content/pkg/GPO-CRECB-1972-pt17/pdf/GPO-CRECB-1972-pt17-2-1.pdf.

Reagan was unable to implement his vision in the face of strong congressional opposition and the entrenched Cold War belief that vulnerability was stabilizing. It was not until 30 years later that President George W. Bush announced the U.S. withdrawal from the ABM Treaty in order to allow a limited defense against possible rogue state (e.g., North Korean) missile attack.

Despite the U.S. withdrawal, American missile defense policy has remained relatively consistent throughout subsequent administrations. The number of Ground-Based Interceptors (GBIs) deployed by the United States still stands at 44, the same number initially deployed two decades ago. (Russia has at least 64 nuclear-tipped interceptors deployed to protect the capital, Moscow.)

The Obama Administration continued to foreswear the development of U.S. missile defense capabilities that could be useful to deter or defeat coercive missile strikes from either China or Russia in the belief that neither great power posed a significant nuclear threat to the United States and that both Moscow and Beijing would adopt a more benign security posture and take a more cooperative stance toward the United States. The 2010 Ballistic Missile Defense Review Report noted, "Today, only Russia and China have the capability to conduct a large-scale ballistic missile attack on the territory of the United States, but this is very unlikely and not the focus of U.S. BMD. As the President has made clear, both Russia and China are important partners for the future, and the United States seeks to continue building collaborative and cooperative relationships with them."15 Further, it stated:

As the United States has stated in the past, the homeland missile defense capabilities are focused

¹⁵ Department of Defense, Ballistic Missile Defense Review Report, February 2010, pp. 4-5, available at https://dod.defense.gov/Portals/1/features/defenseReviews/BMDR/ BMDR as of 26JAN10 0630 for web.pdf.

on regional actors such as Iran and North Korea. While the GMD [Ground-Based Midcourse Defense] system would be employed to defend the United States against limited missile launches from any source, it does not have the capacity to cope with large scale Russian or Chinese missile attacks, and is not intended to affect the strategic balance with those countries.¹⁶

With respect to China, the 2010 *Ballistic Missile Defense Review Report* stated that "maintaining strategic stability in the U.S.-China relationship is as important to this Administration as maintaining strategic stability with other major powers." The term "strategic stability" became a euphemism during the Cold War for the balance of terror produced by a situation of mutual vulnerability and the mutual hostage relationship. Similarly, the Obama Administration's 2010 *Nuclear Posture Review Report* reiterated that "our missile defenses... are designed to address newly emerging regional threats, and are not intended to affect the strategic balance with Russia." 18

The first term Trump Administration's missile defense policy also acknowledged that the rudimentary U.S. missile defense capability was insufficient to defend the homeland against the larger and more sophisticated ballistic missile arsenals of Russia and China. Specifically, it noted that "the United States relies on deterrence to protect against large and technically sophisticated Russian and Chinese intercontinental ballistic missile threats to the U.S. homeland" and reiterated that the U.S. missile defense program was designed to protect the nation against

¹⁷ Ibid., p. 34.

¹⁶ Ibid., p. 13.

¹⁸ Department of Defense, *Nuclear Posture Review Report*, April 2010, p. x, available at

https://dod.defense.gov/portals/1/features/defensereviews/npr/2010_nuclear_posture_review_report.pdf.

"existing and potential rogue state offensive missile capabilities." However, unlike previous Missile Defense Reviews (MDRs), the Trump MDR did not, as a matter of policy, state that the United States would not seek to improve U.S. missile defense capabilities to defend against Russia or China in order to preserve "strategic stability." In fact, the term "strategic stability" did not appear at all in the 2019 MDR.

Nevertheless, the 2019 MDR fell short of President Trump's own description of what U.S. missile defense policy should be. In a speech at the Pentagon to unveil the MDR, Trump stated, "Our goal is simple: to ensure that we can detect and destroy any missile launched against the United States—anywhere, anytime, anyplace." He also stated that "Regardless of the missile type or the geographic origins of the attack, we will ensure that enemy missiles find no sanctuary on Earth or in the skies above." To help achieve this objective, he declared that the United States "will invest in a space-based missile defense layer." In reality, however, U.S. missile defense programs remained limited in scope, directed toward defeating rogue state missile threats, and lacked a space-based defensive component other than sensors.

The Biden Administration's 2022 Missile Defense Review maintained a prohibition against expanding U.S. homeland missile defense posture to defend against coercive nuclear strikes from China or Russia. It stated, "The United States will continue to rely on strategic deterrence... to address

¹⁹ Department of Defense, *Missile Defense Review*, 2019, p. III, available at https://www.defense.gov/Portals/1/Interactive/2018/11-2019-Missile-Defense-

Review/The%202019%20MDR_Executive%20Summary.pdf.

²⁰ The White House, "Remarks by President Trump and Vice President Pence Announcing the Missile Defense Review," January 17, 2019, available at https://trumpwhitehouse.archives.gov/briefingsstatements/remarks-president-trump-vice-president-penceannouncing-missile-defense-review/.

and deter large intercontinental-range, nuclear missile threats to the homeland from the People's Republic of China (PRC) and the Russian Federation (Russia)."²¹ Despite noting that China "has dramatically advanced its development of conventional and nuclear-armed ballistic and hypersonic missile technologies and capabilities," and acknowledging that Russia "has prioritized modernization of its intercontinental range missile systems and is developing, testing, and deploying new, diversified capabilities that pose new challenges to missile warning and defense of the U.S. homeland,"²² the Biden MDR did not change U.S. homeland missile defense policy.

The Biden Administration's refusal to adapt U.S. missile defense policy to the emerging Russian and Chinese missile threats it identified highlighted a significant disconnect between an acknowledgment of those threats and the U.S. response. This was even more pronounced in light of the 2022 MDR's explicit statement that "the Department's top priority is to defend the homeland and deter attacks against the United States." It is difficult to argue that defending the homeland against growing missile threats, especially from Russia and China, is the "top priority" while taking no action to actively defend the nation against such threats.

It now falls to the second Trump Administration to correct a Cold War policy that has survived through the post-Cold War era and is in need of significant modification.

The Benefits of Homeland Missile Defense

Despite the views of those who still cling to the erroneous Cold War belief that homeland missile defenses would be destabilizing, provocative, prohibitively costly,

²¹ Department of Defense, 2022 Missile Defense Review, op. cit., p. 1.

²² Ibid., pp. 2-3.

²³ Ibid., p. 6.

technologically infeasible, and strategically unnecessary, there are numerous benefits that would accrue to the United States by having a more robust and resilient defense against missile attack.

As noted above, U.S. adversaries continue to develop and deploy offensive missiles of increasing range and sophistication.²⁴ Russia has been engaged in an extensive nuclear modernization program, developing a variety of novel nuclear systems capable of targeting the United States and U.S. allies. According to Russian President Vladimir Putin, "the share of modern weapons and equipment in the strategic nuclear forces has already reached 95 percent, while the naval component of the 'nuclear triad' is at almost 100 percent."²⁵ Likewise, China has apparently abandoned its self-proclaimed "minimum deterrence" posture and has engaged in a nuclear buildup that the former commander of U.S. Strategic Command, Adm. Charles Richard, has called "breathtaking" and a "strategic breakout."²⁶ North Korea continues to develop its nuclear weapons and missile

²

²⁴ For a comprehensive description of the size and characteristics of Russia's and China's nuclear weapons arsenals, see Mark B. Schneider, *Current and Projected Growth of China's Nuclear Arsenal, Occasional Paper*, Vol. 4, No. 10 (Fairfax, VA: National Institute Press, October 2024), available at https://nipp.org/wp-content/uploads/2024/10/Vol.-4-No.-10.pdf; and Mark B. Schneider, *How Many Nuclear Weapons Does Russia Have? The Size and Characteristics of the Russian Nuclear Stockpile, Occasional Paper*, Vol. 3, No. 8 (Fairfax, VA: National Institute Press, August 2023), available at https://nipp.org/wp-content/uploads/2023/09/Vol.-3-No.-8.pdf.

²⁵ Andrew Osborn and Mark Trevelyan, "Putin says nearly all of Russia's nuclear forces have been modernised," *Reuters*, February 23, 2024, available at https://www.reuters.com/business/aerospace-defense/putin-says-95-russias-nuclear-forces-have-been-modernised-2024-02-23/.

²⁶ Aaron Mehta, "STRATCOM Chief Warns Of Chinese 'Strategic Breakout'," *Breaking Defense*, August 12, 2021, available at https://breakingdefense.com/2021/08/stratcom-chief-warns-of-chinese-strategic-breakout/.

capabilities, launching more than 100 ballistic missiles since 2022, including more than a dozen of intercontinental range.²⁷ North Korean leader Kim Jong Un has threatened to use nuclear weapons against South Korea²⁸ and called for a "limitless" expansion of Pyongyang's nuclear weapons program as a counter to the United States.²⁹ And, Iran has obtained the status of a "near-nuclear weapons state" by virtue of its enrichment of uranium to levels beyond those required exclusively for civilian purposes. As the Director General of the International Atomic Energy Agency recently stated, Tehran has "dramatically" accelerated its enrichment of uranium to levels approaching weapons grade.³⁰

In the face of these growing nuclear threats, an expanded U.S. homeland missile defense posture makes strategic sense.³¹ It would complicate the attack calculus of

Ministry of Foreign Affairs

²⁷ Ministry of Foreign Affairs, Republic of Korea, "Overview: Understanding the North Korean Nuclear Issue," (undated), available at https://www.mofa.go.kr/eng/wpge/m_5474/contents.do.

²⁸ Yoonjung Seo and Lex Harvey, "North Korea's Kim Jong Un threatens to destroy the South with nuclear weapons if provoked," CNN, October 4, 2024, available at

https://www.cnn.com/2024/10/04/asia/north-korea-kim-jong-un-nuclear-weapons-intl-hnk/index.html.

²⁹ Kim Tong-Hyung, "North Korean leader calls for expanding his nuclear forces in the face of alleged US threats," *Associated Press*, November 17, 2024, available at https://apnews.com/article/north-korea-kim-nuclear-program-81806b946dffc9923c924a98959ab1ff.

³⁰ Alexander Cornwell, Francois Murphy and John Irish, "Exclusive: Iran dramatically accelerating uranium enrichment to near bomb grade, IAEA says," *Reuters*, December 6, 2024, available at https://www.reuters.com/world/middle-east/iran-dramatically-increasing-enrichment-near-bomb-grade-iaea-chief-2024-12-06/.

³¹ For a comprehensive treatment of the benefits of a more robust homeland missile defense system, see Matthew R. Costlow, *Vulnerability is No Virtue and Defense is No Vice: The Strategic Benefits of Expanded U.S. Homeland Missile Defense, Occasional Paper*, Vol. 2, No. 9 (Fairfax, VA: National Institute Press, September 2022), available at https://nipp.org/wp-content/uploads/2022/09/OP-Vol.-2-No.-9.pdf.

any aggressor contemplating a potential attack against the United States.³² It would also diminish the value of adversary coercive nuclear threats or threats to engage in limited nuclear strikes. In this way, deterrence would be strengthened by the deployment of more robust homeland missile defenses. As one defense expert and a former Vice Chairman of the Joint Chiefs of Staff argued, "To strengthen the credibility of deterrence, Washington should update its missile defence policy and deploy additional missile defence capabilities. This will not only defend critical infrastructure, defences and public services, but it will also help to deter both Russia and China from considering such an attack, by increasing their uncertainty over whether it would succeed."³³

In addition, given the heightened threat environment, there is always the risk that deterrence might fail—by design, accident, or miscalculation. Protecting the homeland against the failure of deterrence by the deployment of more robust active missile defenses would not only save lives but is the morally justifiable and prudent course of action in an increasingly dangerous and uncertain geo-strategic environment.

-

³² As one recent study noted, "The objective of the missile defense system is to create enough doubt in the adversary's mind about the prospect of a successful attack that the adversary concludes such an attack is not worth the risk—especially alongside fears of enormous consequences. In other words, such an attack would be futile and fatal." See Soofer, et al., op cit.

³³ Rebeccah L. Heinrichs and General John Hyten, "The US Must Upgrade its Missile Defence to Deter Russia and China," RUSI, April 2, 2024, available at https://rusi.org/explore-our-research/publications/commentary/us-must-upgrade-its-missile-defence-deter-russia-and-china.

The Role of Congress

The U.S. Congress has responsibility for authorizing and appropriating funds for defense programs. The most significant power the Congress has is what has often been referred to as "the power of the purse." As James Madison noted in *Federalist 58*, "This power over the purse may, in fact, be regarded as the most complete and effectual weapon with which any constitution can arm the immediate representatives of the people, for obtaining a redress of every grievance, and for carrying into effect every just and salutary measure."³⁴

Yet, the Congress also has the power to create or modify policy and has done so numerous times with respect to U.S. missile defense policy. For example, in the National Missile Defense Act of 1999, Congress declared, "It is the policy of the United States to deploy as soon as is technologically possible an effective National Missile Defense system capable of defending the territory of the United States against limited ballistic missile attack (whether accidental, unauthorized, or deliberate)...."³⁵

This policy language was amended by the Fiscal Year (FY) 2017 National Defense Authorization Act (NDAA), which declared, "It is the policy of the United States to maintain and improve an effective, robust layered missile defense system capable of defending the territory of the United States, allies, deployed forces, and capabilities against the developing and increasingly complex ballistic

113-Pg205.pdf.

³⁴ James Madison, *Federalist Paper 58*, available at https://avalon.law.yale.edu/18th_century/fed58.asp.

³⁵ Section 2 of the *National Missile Defense Act of 1999* (Public Law 106-38), July 22, 1999, available at https://www.congress.gov/106/statute/STATUTE-113/STATUTE-

missile threat...."³⁶ This policy statement recognized the growing threat to the U.S. homeland posed by increasingly sophisticated ballistic missiles but did not specify that the United States should limit its missile defense efforts to defending the homeland against rogue state missile threats. In fact, the language calling for an "effective, robust layered missile defense system" suggests that Congress recognized the need for a more effective homeland defense capability to protect Americans against a range of possible ballistic missile threats. Yet, this guidance remained unfulfilled.

Indeed, in the FY 2016 NDAA, Congress directed the Missile Defense Agency (MDA) to begin defining the elements of a space-based intercept system to provide "(1) a boost-phase layer for missile defense; or (2) additional defensive options against direct ascent anti-satellite weapons, hypersonic glide vehicles, and maneuvering reentry vehicles" and the architecture, to assess components, and maturity of technologies "necessary to make such a space-based ballistic missile intercept layer operational." The law also required MDA to submit a report to Congress that included "a plan for developing one or more programs of record for a space-based ballistic missile intercept layer...."37 To date, no such space-based ballistic missile intercept layer exists.

The FY 2020 NDAA amended the policy language in the FY 2017 NDAA, calling for "an effective, layered missile defense system capable of defending the territory of the United States against the developing and increasingly complex missile threat *posed by rogue states*" (emphasis

_

³⁶ Section 1681 of the *National Defense Authorization Act for Fiscal Year* 2017 (Public Law 114-328), December 23, 2016, available at https://www.congress.gov/114/plaws/publ328/PLAW-114publ328.pdf.

³⁷ Section 1685 of the *National Defense Authorization Act for Fiscal Year* 2016 (Public Law 114-92), November 25, 2015, available at https://www.congress.gov/114/statute/STATUTE-129/STATUTE-129-Pg726.pdf.

added) and included a statement declaring that it is the policy of the United States to "rely on nuclear deterrence to address more sophisticated and larger quantity near-peer intercontinental missile threats to the homeland of the United States."

This amended language walked back the earlier broader policy by declaring U.S. missile defenses of the homeland should be directed against rogue states and not against the strategic nuclear forces of Russia and China. This formulation reflected the same flawed approach, codified by the ABM Treaty, that equated vulnerability with stability. It was a direct throwback to the Cold War "balance of terror" notion that missile defenses are destabilizing and that leaving the American people hostage to the threat of Russian or Chinese ballistic missile attack is the best way to ensure effective deterrence.

More recently, the FY 2024 NDAA further amended missile defense policy, declaring it is U.S. policy to develop, deploy, and sustain missile defense systems that provide "effective, layered missile defense capabilities to defeat increasingly complex missile threats *in all phases of flight*" ³⁹ (emphasis added). This latter phrase indirectly suggested a possible role for space-based elements that can target missiles in their boost and ascent phases, in addition to terrestrial systems that rely on ground-based interceptors to defeat incoming missiles in their mid-course and terminal phases. However, the FY 2024 NDAA did not direct the development or acquisition of space-based missile defenses but merely required a study on the feasibility of space-based missile defense elements to "address current and evolving"

³⁸ Section 1681 of the *National Defense Authorization Act for Fiscal Year* 2020 (Public Law 116-92), December 20, 2019, available at https://www.congress.gov/116/plaws/publ92/PLAW-116publ92.pdf.

³⁹ Section 1663 of the *National Defense Authorization Act for Fiscal Year* 2024 (Public Law 118-31), December 22, 2023, available at https://www.congress.gov/118/plaws/publ31/PLAW-118publ31.pdf.

missile threats to the United States and deployed Armed Forces."⁴⁰ It also reiterated prior language that declares it is U.S. policy "to rely on nuclear deterrence to address more sophisticated and larger quantity near-peer intercontinental missile threats to the homeland of the United States."⁴¹ And, the FY 2025 NDAA also incorporated identical language into Subtitle A of Title 10, United States Code.⁴² Once again, the actual development and deployment of an effective space-based missile defense layer remains merely a notional aspiration.

Despite repeated legislative language over the years favoring effective, layered missile defense capabilities and multiple expressions of congressional support for more robust homeland missile defense capabilities, little has been done to implement congressional directives. Although some upgrades have occurred and additional more modern interceptors are planned, the U.S. homeland missile defense program remains essentially unchanged from the initial deployment of 44 GBIs that began in 2004. While some capability enhancements have been made, protection of the U.S. homeland from ballistic missile threats remains focused on a limited number of terrestrial-based mid-course and terminal phase interceptors. The United States has not moved forward with a space-based intercept component to counter ballistic missiles in their boost or ascent phases. Nor (with the exception of support for defense against cruise missiles)43 has it sought to develop or deploy more capable active defenses against peer nuclear missile threats.

⁴⁰ Ibid., Section 1671.

⁴¹ Ibid., Section 1663.

⁴² Section 1649 of the "Servicemember Quality of Life Improvement and National Defense Authorization Act for Fiscal Year 2025," (Public Law 118-159), available at https://www.congress.gov/bill/118th-congress/house-bill/5009/text?overview=closed.

⁴³ Soofer, et al., op. cit.

Enacted legislation is not advisory and must not be treated as such. It is time for Congress to step up to the plate and demand that the executive branch fulfill the legislative mandates directed by Congress and signed into law by the president. This is especially true when those mandates involve the protection of the nation and its citizens, and the executive branch openly declares that defense of the homeland is the nation's top priority.

Adapting Existing Law to Current Realities

Some may question whether congressional statements of policy have any practical effect on U.S. missile defense programs, as it is generally assumed that the executive branch establishes national security policy and decides which specific programs to pursue. However, once enacted as law, congressional policy statements are as legally binding as the other legislative provisions that provide funding, establish requirements, and provide guidance and direction to the Department of Defense.

Others may argue that a congressional statement of policy simply reflects current practice rather than establishing policy direction in perpetuity. In other words, stating that it is U.S. policy to rely on nuclear deterrence to address Russian and Chinese strategic missile threats to the U.S. homeland is nothing more than an acknowledgement of existing reality, similar to the language used in the 2019 MDR. However, the 2019 MDR was not a legally binding document while the annual NDAA is U.S. law. Moreover, unlike general policy statements that express the sentiments of the legislative branch through non-binding resolutions, codifying a policy in law means that the policy remains valid and legally binding unless and until it is amended or otherwise overturned by subsequent legislation.

Legal requirements impact the capabilities of U.S. weapon systems, and all U.S. weapon systems go through a

rigorous process to ensure compliance with all legal and international agreements. For example, as originally developed, the Theater High Altitude Area Defense (THAAD) system (subsequently renamed Terminal High Altitude Area Defense) was designed to be compliant with the ABM Treaty.⁴⁴ Although not the same as legally binding international agreements, congressional policy statements may impact funding and programs to a similar degree.

The Department of Defense does not build weapon systems; the defense industry does. And the defense industry builds systems to government specifications. However, if Congress mandates that the United States will rely on deterrence rather than active defense to protect the homeland against strategic missile threats from peer nuclear adversaries, then industry may be reluctant to develop capabilities that are perceived as inconsistent with policy guidelines established by law. In this way, a simple statement of policy, embedded in and codified in law, may have an unintentional or inadvertent negative impact on both industry's willingness to produce capabilities that are perceived as contrary to legal guidance and the government's willingness to ask industry to do so.

This congressional policy statement may also become an issue as U.S. missile defense capabilities seek to keep pace with the development of more sophisticated rogue state missile capabilities, in that improved U.S. missile defenses designed to defeat increasingly sophisticated rogue state missile threats may also have some latent capability against peer nuclear threats.⁴⁵ If U.S. policy eschews active defenses

⁴⁴ Ballistic Missile Defense Organization, "Theater High Altitude Area Defense System," *BMDO Fact Sheet* 204-00-11, November 2000, available at https://www.bits.de/NRANEU/BMD/documents/BMDO-THAAD.pdf.

⁴⁵ Some in Congress have already questioned the wisdom of keeping pace with evolving rogue state missile threats if doing so impacts the viability of Russia's or China's strategic nuclear forces. For example,

against peer nuclear missile threats, will industry be willing to improve systems to defend against rogue state threats if doing so will also provide some capability to counter Russian or Chinese strategic missile forces in contravention of U.S. policy established in law?

A simple solution to this dilemma would be for Congress to amend U.S. policy by revoking aforementioned policy statement in Subtitle A of Title 10, U.S. Code. As noted above, this language was reiterated in the FY 2025 NDAA and remains U.S. policy. The Trump Administration should work with the new Congress to repeal this language and replace it with language in the FY 2026 NDAA that acknowledges, as a matter of policy, the need to bolster homeland missile defenses against the growing missile threats from major nuclear-armed adversaries, including Russia and China. This will help expedite greater understanding of the urgency of improving U.S. homeland missile defenses as well as help ensure that confusion is avoided, industry is unfettered by imprecise or unclear policy direction, and that the United States can go forward expeditiously with a much needed and more robust missile defense capability to protect the homeland. The Cold War mentality that argues missile defense against peer nuclear threats is "destabilizing" must be relegated to the proverbial dustbin of history.

_

Rep. Seth Moulton (D-MA) has stated, "At some point, if we continue to expand our current arsenal of interceptors, we must ask not just how North Korea will respond, but how Russia and the [Chinese Communist Party] CCP will respond as they see a pathway for our missile shield to impact their deterrent as well." See Rep. Seth Moulton, "Opening Statement, FY24 Request for Missile Defense and Missile Defeat Programs," House Armed Services Committee Strategic Forces Subcommittee, April 19, 2023, available at https://democrats-armedservices.house.gov/_cache/files/f/c/fc6ed1c1-eb1c-463f-ae0b-cfbe41a838db/23109AC8232766CF49F1BFB2D4487579.20230418-moulton-str-hearing-statement.pdf.

As President Trump stated in releasing the 2019 MDR, "We are committed to establishing a missile defense program that can shield every city in the United States.... Regardless of the missile type or the geographic origins of the attack, we will ensure that enemy missiles find no sanctuary on Earth or in the skies above."46 This cannot be done as long as the United States continues to rely solely on nuclear deterrence to protect the nation against Russian and Chinese missile threats. Indeed, a policy that allows the U.S. homeland to remain vulnerable to coercive nuclear threats from Russia and China seems incongruous with repeated statements that defending the homeland is DoD's "top priority."47 Apparently, it is okay to actively defend the homeland against lesser threats but not more substantial ones. As one recent study concluded, "The current policy of staying ahead of the North Korean long-range ballistic missile threat while relying only on nuclear retaliation to deter Russian and Chinese ballistic missile threats is incoherent and no longer tenable given Russian and Chinese doctrine and capabilities for limited nuclear and conventional strikes against the homeland."48

Congress should clearly articulate, through the NDAA process, a new direction for U.S. missile defense policy that acknowledges the need to defend the homeland not only against rogue state nuclear threats but against more significant and sophisticated peer nation nuclear missile threats. Statutory language must make it clear that it is U.S. policy to defend the nation by providing for a layered defense against all types of missile threats, launched from any location, in all stages of flight. Such policy language is

⁴⁶ The White House, "Remarks by President Trump and Vice President Pence Announcing the Missile Defense Review," January 17, 2019, op. cit.

⁴⁷ See, for example, Department of Defense, 2022 Missile Defense Review, op. cit., p. 6.

⁴⁸ Soofer, et al., op. cit.

a necessary prerequisite to action, would be consistent with the president's Executive Order, and would serve as an important catalyst to the budgetary and programmatic decisions required to protect the U.S. homeland from expanding missile threats.

The Advent of Advanced Technology: From Brilliant Pebbles to Starlink

The United States relies on space for a multitude of societal needs ranging from satellites that provide everything from telecommunications to navigation to intelligence and surveillance activities, to position, navigation, and timing in support of military operations. As such, space is becoming increasingly contested and is now considered a warfighting domain.⁴⁹

Ballistic missiles travel through space on their way to their targets. Russia and China have both engaged in antisatellite (ASAT) activities that jeopardize the resilience of critical U.S. space assets. The U.S. Global Positioning Satellite (GPS) constellation has been spoofed and its accuracy degraded by hostile actions, in many cases believed to be attributable to Russia.⁵⁰ While advances in technology can be advantageous to the attacker, they can also benefit the defender.

⁴⁹ Steve Lambakis, *Space As a Warfighting Domain: Reshaping Policy to Execute 21st Century Spacepower* (Fairfax, VA: National Institute Press, May 2021), available at https://nipp.org/wp-

content/uploads/2021/06/Space-as-a-Warfighting-Domain-pub-5.21.pdf. Also see Everett C. Dolman, "Space is a Warfighting Domain," *AEther: A Journal of Strategic Airpower and Spacepower*, Vol. 1, No. 1, Spring 2022, pp. 82-90, available at

 $https://www.airuniversity.af.edu/Portals/10/AEtherJournal/Journals/Volume-1_Issue-1/11-Dolman.pdf.\\$

⁵⁰ Matt Burgess, "The Dangerous Rise of GPS Attacks," Wired, April 30, 2024, available at https://www.wired.com/story/the-dangerous-rise-of-gps-attacks/.

Since the early days of U.S. missile defense efforts, the technology to defend against ballistic missile attack has improved dramatically. Terrestrial and space-based sensors, ground-based interceptors, non-kinetic and exotic directed energy systems, and command and control (C2) capabilities have advanced to the point where it is increasingly feasible to incorporate more sophisticated and effective technologies into a comprehensive homeland missile defense architecture.

The demise of the ABM Treaty in 2002 opened the door to the development and deployment of more technologically sophisticated missile defense capabilities no longer prohibited by the treaty. Nevertheless, despite U.S. technological advances across the board, the United States has limited its missile defense efforts to improvements in sensors, the Command, Control, Battle Management, and Communications (C2BMC) system, and the deployment of terrestrial interceptor systems—primarily focusing on intercepting incoming ballistic missiles in their mid-course or terminal phases of flight from the land and from the sea.

Since the unrealized promise of President Reagan's Strategic Defense Initiative, support for space-based sensors that can provide early warning and missile tracking data has been nearly universal and relatively immune from partisan debate. However, this has not been the case when it comes to kinetic or non-kinetic defensive interceptors or capabilities. Indeed, opposition to the deployment of such space-based capabilities has been fierce—especially among those who erroneously equate such deployments with the "weaponization of space." This ideological and erroneous view has unfortunately limited the U.S. ability to counter and destroy offensive missiles before they reach U.S. territory, significantly complicating the overall missile defense mission.

The benefits of developing a space-based intercept capability are numerous. It would allow longer-range

missiles to be countered in their boost- and ascent-phases, when they are most vulnerable due to the highly visible signature while their engines are burning. A boost- or ascent-phase defense would also allow the destruction of missiles over enemy territory rather than over U.S. soil. This, in itself, could serve as a powerful deterrent to missile attack. Moreover, as one report concluded, "Boost- or ascent-phase defense can mitigate many of the technical challenges associated with intercept in later phases of flight, where targets can deploy countermeasures and execute evasive maneuvers."⁵¹

A space-based missile defense interceptor component ("Brilliant Pebbles" was one such program) was part of the original SDI concept, but it foundered on the shoals of political opposition and arguments over cost, technical feasibility, arms control considerations, and Cold War notions of strategic stability. Nevertheless, significant progress has been made over the past four decades to suggest that it is time to rethink missile defense from space. In addition, the evolution of the missile threat to the U.S. homeland, as noted above, makes a space-based defensive system increasingly valuable for countering ballistic missile threats.

Technological achievements in space have been demonstrated by the development and success of private sector ventures. For example, companies like Iridium Communications, Blue Origin, and SpaceX have revolutionized access to space, demonstrating the ability of commercial off-the-shelf technology to reduce the costs of space launches. Since 2019, SpaceX has deployed a

⁵¹ Ian Williams and Masao Dahlgren, et al, *Boost-Phase Missile Defense: Interrogating the Assumptions*, Center for Strategic and International Studies, June 2022, p. 1, available at https://csis-website-

prod.s3.amazonaws.com/s3fs-

public/publication/220624_Karako_BoostPhase_MissileDefense.pdf?VersionId=WjJxlNM58oru1LK21LC9untewoK_UAQD.

constellation of more than 7,000 space communication satellites and plans to deploy thousands more, providing internet connectivity on a global scale. In December 2024, SpaceX launched a military Global Positioning System (GPS) satellite—and did so in less time than the normal process takes.⁵² This suggests commercial companies can play a greater role in implementing national security decisions.⁵³

As a former director of the Missile Defense Agency explained:

Moving to space is the only way to defeat a growing quantity and quality of adversary threats. It is the only means to provide an effective boost/ascent phase missile defense capability essential to defeat current and future threats. There is simply no other technically feasible option.... Space-based missile defenses are affordable and achievable. Engineers have made major progress in every technological sector needed for deployment. The technologies for space-based capabilities are like those being employed by Uber, Google, SpaceX, and other private sector enterprises. Significant missile defense capability from space can be provided by swarms of nanosats utilizing integrated sensing, artificial intelligence, peer to peer networks, and

⁵² Courtney Albon, "SpaceX launches rapid response GPS mission," *Defense News*, December 17, 2024, available at https://www.defensenews.com/space/2024/12/17/spacex-launches-rapid-response-gps-mission/?utm_campaign=dfn-ebb&utm_medium=email&utm_source=sailthru.

⁵³ One commentator referred to the possibility of space-based defenses as an "opportunity for a quantum leap in capability." See Rich Lowry, "Trump Is Right about Creating a U.S. Iron Dome," *National Review*, December 18, 2024, available at

https://www.nationalreview.com/2024/12/trump-is-right-about-creating-a-u-s-iron-dome/.

low-cost space launch opportunities pioneered by the commercial sector.⁵⁴

In fact, terrestrial-based interceptors alone (the existing Ground-Based Interceptor (GBI) and the Next Generation Interceptor (NGI) currently in development) are insufficient to address coercive nuclear threats posed by nuclear peer adversaries and may even be inadequate to counter the evolving rogue state nuclear threat. Indeed, current plans call for adding only 20 NGI interceptors to the 44 existing GBIs starting in 2028.⁵⁵ As one former senior U.S. Government official noted, "While NGI will clearly be a major advancement over the current GBI force, you simply cannot scale up ground-based defenses to meet the deterrent and defense requirements that we have today – especially Russian and Chinese coercive threats."

President Trump's Executive Order on "The Iron Dome for America" calls for a homeland missile defense architecture that includes the "[d]evelopment and deployment of proliferated space-based interceptors capable of boost-phase intercept," as well as the deployment of non-kinetic capabilities.⁵⁷ This recognizes

⁵⁴ Lt. Gen. Henry "Trey" Obering, III (Ret.), Remarks at symposium on "Overcoming the Roadblocks to Homeland Missile Defense," hosted by National Institute for Public Policy, July 20, 2022, printed in *Journal of Policy & Strategy*, Vol. 3, No. 1, p. 104, available at https://nipp.org/wp-content/uploads/2023/03/Proceedings-July-2022.pdf.

⁵⁵ Peppi DeBiaso, "Homeland Missile Defense: Staying the Course," Center for Strategic and International Studies, October 27, 2022, available at https://www.csis.org/analysis/homeland-missile-defense-staying-course-0.

⁵⁶ Robert G. Joseph, Remarks at symposium on "Adapting U.S. Missile Defense Policy to Evolving Threats," hosted by National Institute for Public Policy, May 15, 2024, printed in *Journal of Policy & Strategy*, Vol. 4, No. 3, p. 77, available at https://nipp.org/wp-content/uploads/2024/09/Proceedings-May-2024.pdf.

⁵⁷ The White House, Executive Order, "The Iron Dome for America," op. cit.

the important role space-based capabilities can play in protecting the U.S. homeland and is a first step toward overcoming opposition to space-based defenses.

One proposal worthy of consideration calls for deploying a space-based missile defense "overlayer" consisting of approximately 1,000 small, networked satellites that can "serve as both sensors, communication relays, as well as platforms for launching interceptors." These platforms would carry "small kinetic, non-explosive kill vehicles that can engage targets across multiple stages of flight, including the boost phase and during their midcourse or coasting phase."58 Although this may not be a near-term solution, other stopgap measures might provide quicker results for boost-phase defense, including arming F-35 fighter aircraft and unmanned aerial systems (UAS) with interceptors.⁵⁹ As the 2019 MDR noted, "DoD's newest tactical aircraft, the F-35 Lightning II, can track and destroy adversary cruise missiles today and, in the future, can be equipped with a new or modified interceptor capable of shooting down adversary ballistic missiles in their boost phase."60 While manned aircraft would need to be positioned in relative proximity to potential missile launch sites, UAS assets have a greater ability to loiter over the target area at less cost and without placing aircrews in jeopardy.

Another technology with potential promise for missile defense is directed energy. Proof of concept was

-

⁵⁸ Henry Obering and Robert Peters, "Time for a New Missile Defense Review and a Space-Based Missile Defense Overlayer," *Issue Brief No.* 5342, The Heritage Foundation, March 22, 2024, p. 4, available at https://www.heritage.org/sites/default/files/2024-03/IB5342.pdf.

59 For example, see Henry F. Cooper and Dale E. Tietz, "SDI-Era Tech in Face of North Korea, Iran," *Newsmax*, August 24, 2017, available at https://www.newsmax.com/henryfcooper/mattis-raptor-talon-brilliant-pebbles-ballistic-missile-defense/2017/08/24/id/809566/.

⁶⁰ Department of Defense, *Missile Defense Review*, 2019, op. cit., pp. XV, 55.

demonstrated in 2010 when the Airborne Laser program successfully destroyed short-range liquid and solid fueled target missiles. As a former director of the Missile Defense Agency noted, "By deploying lasers to space, you take advantage of the vacuum and precision control offered by the environment and the satellite platforms. In addition, you can achieve greater ranges through the use of relay satellites, thereby reducing the laser constellation size.... We have the technology; we just need the resources and will to develop and deploy such weapons." High-powered microwave systems also show promise as potentially less costly and more effective adjuncts to other directed energy missile defense systems.

In addition to the development of space-based kinetic and non-kinetic intercept capabilities, the United States should move forward expeditiously with improvements to both terrestrial and space-based sensors that can provide early warning and detection of offensive missile launches—whether ballistic, cruise, or hypersonic—as well as improved tracking and discrimination capabilities. The technology has advanced dramatically and a "layered sensor architecture" can enhance the effectiveness of all intercept systems.⁶³

⁶¹ Obering, Remarks at symposium, op. cit., p. 105.

⁶² DeBiaso, op. cit.

⁶³ For additional details, see Dr. Steve Lambakis, *Moving U.S. Tracking Sensors to Space, Information Series*, No. 575 (Fairfax, VA: National Institute Press, February 12, 2024), available at https://nipp.org/wp-content/uploads/2024/02/IS-575.pdf. Also see Steve Lambakis, *Space Sensors and Missile Defense* (Fairfax, VA: National Institute Press, 2023), available at https://nipp.org/wp-content/uploads/2023/08/Space-Sensors-2023.pdf; and, Maseo Dahlgren and Tom Karako, *Getting on Track: Space and Airborne Sensors for Hypersonic Missile Defense*, Center for Strategic and International Studies, December 2023, available at https://csis-website-prod.s3.amazonaws.com/s3fs-public/2023-12/231218_Dahlgren_Getting_Track_0.pdf?VersionId=gyTyKePGJmFvnZmTgQY5. GidZ0jfGh4.

As a matter of policy, the Trump Administration should seek expeditiously to implement the president's Executive Order to incorporate space-based kinetic and non-kinetic options into a comprehensive missile defense posture that fulfills the president's earlier commitment to "invest in a space-based missile defense layer" that will allow the United States to "detect and destroy any missile launched against the United States—anywhere, anytime, anyplace." Nothing less will address the suite of emerging offensive missile threats to the U.S. homeland.

Investing Resources

In releasing the president's defense budget request for FY 2025, Secretary of Defense Lloyd Austin stated:

Our highest defense priority remains to deter attack against the United States. The PRC and Russia are fielding conventional long-range and hypersonic weapons that can threaten our allies, partners, and U.S. forces. Therefore, the FY 2025 budget requests \$28.4 billion to enhance U.S. missile-defense capabilities to defend the homeland, U.S. deployed forces, and our allies and partners against this growing missile threat.⁶⁴

Yet, despite repeated assertions that deterring attacks on and defending the U.S. homeland is the "top priority" of the Department of Defense, the budget for missile defense

⁶⁴ "Department of Defense Releases the President's Fiscal Year 2025 Defense Budget: Statement by Secretary of Defense Lloyd J. Austin III on the President's Fiscal Year 2025 Defense Budget," Press Release, March 11, 2024, available at

https://www.defense.gov/News/Releases/Release/Article/3703410/department-of-defense-releases-the-presidents-fiscal-year-2025-defense-budget/#:~:text=Therefore%2C%20the%20FY%202025%20budget,again st%20this%20growing%20missile%20threat.

activities has remained relatively constant for many years. In fact, of the \$28.4 billion the Biden Administration requested for missile defense in FY 2025,65 only \$2.7 billion was requested for homeland missile defense activities—an actual *decrease* from the \$3.3 billion requested in the previous year and a particularly significant decrease given inflation.66 Most missile defense funding is allocated for defense against non-strategic ballistic missile attacks and for the protection of U.S. deployed forces, allies, and strategic partners.

Likewise, the budget for the Missile Defense Agency (MDA) has remained relatively stagnant for well over a decade, with a relative downward trend in overall MDA funding since 2005.⁶⁷ The FY 2025 MDA budget request was \$10.4 billion, roughly a \$500 million decline from the previous year and nearly \$1 billion less than what was planned for FY 2025 one year earlier.⁶⁸ As the Senate Armed

budget/2024/03/11/missile-defense-agency-requests-500-million-less-in-new-budget/. Also see statement of Rep. Doug Lamborn, cited in

_

⁶⁵ This figure includes funding for a variety of homeland and theater missile defense capabilities. See Department of Defense News Release, Department of Defense Releases the President's Fiscal Year 2025 Defense Budget, Statement by Secretary of Defense Lloyd J. Austin III on the President's Fiscal Year 2025 Defense Budget, March 11, 2024, available at https://www.defense.gov/News/Releases/Release/Article/3703410/department-of-defense-releases-the-presidents-fiscal-year-2025-defense-budget/.

⁶⁶ Peppino DeBiaso and Robert M. Soofer, "A Homeland Missile Defense Agenda for the Next President," *The National Interest*, October 16, 2024, available at https://nationalinterest.org/feature/homeland-missile-defense-agenda-next-president-213226.

⁶⁷ Tom Karako, Ian Williams and Wes Rumbaugh, *The Missile Defense Agency and the Color of Money*, Center for Strategic and International Studies, July 2016, p. 4, available at https://missilethreat.csis.org/wpcontent/uploads/2016/12/MDA-and-the-Color-of-Money.pdf.

⁶⁸ See Jen Judson, "Missile Defense Agency requests \$500 million less in new budget," *Defense News*, March 11, 2024, available at https://www.defensenews.com/smr/federal-budget/2024/03/11/missile_defense_agency_requests_500 million less.

Services Committee noted, this decrease will negatively impact the ability of the United States to counter hypersonic missile threats, field appropriate directed energy systems, and provide missile defense interceptors with the capability to counter the growing threat from relatively inexpensive unmanned aerial systems.⁶⁹

The proposed U.S. defense budget for FY 2025 is \$883.7 billion. Yet the requested budget for missile defense activities represents only three percent of the overall defense budget request, the MDA budget request is barely one percent of the overall defense budget request, and the amount proposed for the homeland missile defense mission is 0.003 percent of the total. This hardly reflects a level of effort commensurate with what repeatedly is said to be the Department of Defense's "top priority."

The trend in missile defense funding reflects an approach that is anything but serious. U.S. homeland missile defense efforts have essentially been treading water and have not kept pace with the evolution of missile threats to the homeland. This must change—and quickly.

Avoiding the Arms Control Trap

There are those who still remain wedded to the Cold War proposition that missile defenses are destabilizing and that any enhancements to U.S. missile defense posture will inevitably prompt adversaries to increase their offensive missile capabilities in accordance with an "action-reaction"

Missile Defense Advocacy Alliance, "The Overall Level of Funding is Inadequate Given Today's Threat Environment," April 12, 2024, available at https://missiledefenseadvocacy.org/alert/the-overall-level-of-funding-is-inadequate-given-todays-threat-environment/.

⁶⁹ Senate Armed Services Committee, *Report to Accompany S. 4638*, *National Defense Authorization Act for Fiscal Year 2025* (Report 118-188), p. 319, available at https://www.congress.gov/congressional-report/18th-congress/senate-report/188/1.

dynamic. This thinking ignores historical realities that clearly demonstrate the fallacy of this argument.

For example, the 1972 ABM Treaty was intended to stop the Soviet Union from deploying ever more offensive intercontinental-range nuclear ballistic missile capabilities because the U.S. homeland would remain vulnerable in the absence of nationwide missile defenses. Yet, the biggest buildup in Soviet offensive missile capabilities occurred after the treaty entered into force—precisely the opposite of what U.S. decision makers anticipated.

In addition, the corollary argument that missile defenses eliminate the possibility of achieving significant reductions in offensive arms because an opponent will seek to build more missiles to overwhelm the defense has also been proven fallacious. In fact, the most significant nuclear arms reductions occurred after the United States announced its intention to withdraw from the ABM Treaty in 2001. What followed was the signing of the Strategic Offensive Reduction Treaty (SORT, a.k.a. the "Treaty of Moscow") in 2002, which reduced the number of operationally deployed nuclear weapons on both sides from 6,000 established in the 1991 START Treaty to between 1,700 and 2,200—an approximately two-thirds or more reduction.⁷⁰

Nevertheless, there are those who contend that the extensive nuclear buildups by both Russia and China are a reaction to U.S. missile defense programs, despite the fact that their respective offensive nuclear weapons buildups far outstrip any U.S. homeland missile defense activities.⁷¹

⁷⁰ For a more detailed analysis refuting the offense-defense "action-reaction" dynamic, see Hon. David J. Trachtenberg, Dr. Michaela Dodge, and Dr. Keith B. Payne, *The "Action-Reaction" Arms Race Narrative vs. Historical Realities* (Fairfax, VA: National Institute Press, March 2021), available at https://nipp.org/wp-content/uploads/2021/04/Action-Reaction-pub.pdf.

⁷¹ See, for example, James M. Acton, "The U.S. Exit From the Anti-Ballistic Missile Treaty Has Fueled a New Arms Race," Carnegie

Moreover, they believe the way to put the brakes on Moscow's and Beijing's nuclear expansion programs is to negotiate restraints on the U.S. missile defense program. For example, as one former U.S. official has written, "A limited-duration agreement constraining these [missile defense] systems that allows some capability to defend against North Korean ICBMs but leaves Russia assured that its strategic forces could overwhelm that defense ought to be possible. It bears a serious look given that missile defense currently and for the foreseeable future will lose the strategic offense versus defense competition."⁷² And, as another arms control enthusiast has commented, "A willingness to negotiate new limits on homeland missile defenses—in return for significant concessions from China and Russia—should be part of its [the Biden Administration's] approach."⁷³

It is imperative that the Trump Administration avoid falling into the trap of believing that constraints on U.S. missile defenses will lead either Russia or China to abandon their quests for nuclear supremacy and to agree to additional offensive nuclear arms reductions. Such a belief is not supported by history and ignores the divergent goals and objectives of Moscow and Beijing, both of which seek to displace the United States as the predominant global power

_

Endowment for International Peace, December 13, 2021, available at https://carnegieendowment.org/posts/2021/12/the-us-exit-from-the-anti-ballistic-missile-treaty-has-fueled-a-new-arms-race?lang=en. Also see, Dr. Tytti Erästö and Matt Korda, "Time to factor missile defence into nuclear arms control talks," Stockholm International Peace Research Institute, September 30, 2021, available at https://www.sipri.org/commentary/topical-backgrounder/2021/time-factor-missile-defence-nuclear-arms-control-talks.

⁷² Steven Pifer, "Enhancing Strategic Stability: New START and Beyond," *Arms Control Today*, January/February 2021, available at https://www.armscontrol.org/act/2021-01/features/enhancing-strategic-stability-new-start-and-beyond.

⁷³ Acton, op. cit.

and reorient the global geo-political landscape more to their liking. 74

Bureaucratic and Organizational Impediments to Progress

Progress in expanding U.S. homeland missile defense capabilities has been stymied by outdated concepts of "strategic stability," fealty to arms control agreements, erroneous claims of technological immaturity or impossibility, and legislative restrictions. In addition to these impediments, bureaucratic and organizational roadblocks have created additional challenges.

Currently, homeland missile defense responsibilities are divided among multiple organizations. For example, U.S. Northern Command (USNORTHCOM) has the mission to protect the United States from various threats; however, the command lacks significant permanent forces of its own and assigned forces from elsewhere is as USNORTHCOM is collocated with the North American Aerospace Defense Command (NORAD), a bilateral U.S.-Canadian command, which also has responsibilities for the protection of North America (including Canada) from external threats. Though they are separate commands, neither USNORTHCOM nor NORAD can independently direct the acquisition or deployment of missile defense assets to protect the U.S. homeland.

The Missile Defense Agency has the responsibility to develop and mature various missile defense technologies and systems; however, the procurement, operation, and

⁷⁴ For a comprehensive treatment of the strategic goals and objectives of the emergent Sino-Russian entente, see David J. Trachtenberg, "Deterrence Implications of a Sino-Russian Entente," in James H. Anderson and Daniel R. Green (eds.), *Confronting China: US Defense Policy in an Era of Great Power Competition* (London, UK: Bloomsbury Publishing, 2024), pp. 169-192.

maintenance of missile defense systems is the responsibility of the individual Services. Yet, the Services have failed to prioritize the homeland missile defense mission over the acquisition of other capabilities seen as more urgent or responsive to existing military requirements. As long as the Services consider the homeland missile defense mission a lower priority than other missions, little progress in bolstering the U.S. homeland missile defense posture can be expected.

In 2019, the U.S. Space Force was created as a separate branch of the U.S. armed forces. Yet, the mission of the Space Force is mostly relegated to space surveillance and domain awareness. The Chairman of the House Armed Services Committee has called for expanding the size of the Space Force in light of growing threats posed by China and Russia.⁷⁵ This also creates an opportunity to refocus the Space Force mission, giving Guardians additional responsibilities for integrating space-based missile defense capabilities into a more comprehensive, layered, homeland missile defense posture. Doing so may not only advance the homeland missile defense mission but will likely increase leverage for missile defense activities within the overall defense bureaucracy and the budget process.

In addition, the FY 2025 NDAA directed the Secretary of Defense to designate a senior official responsible for developing and implementing "a national integrated air and missile defense architecture for the United States." This may be a mission that the Space Force can assume in order to overcome bureaucratic infighting among the Services and various other DoD components. Indeed, the role of the U.S. Space Force should be elevated by giving it greater responsibility to defend the nation against space-based

⁷⁵ Courtney Albon, "Space Force must grow to counter China and Russia, lawmaker says," *Defense News*, December 17, 2024, available at https://www.defensenews.com/space/2024/12/17/space-force-must-grow-to-counter-china-and-russia-lawmaker-says/.

threats, including long-range missiles that travel through space to attack their targets. This can be done by executive branch action, consistent with the FY 2025 NDAA, and reinforced by congressional authorization and appropriations in the FY 2026 NDAA and Department of Defense Appropriations Act.

Recommendations and Near-Term Courses of Action

In the face of increasingly provocative nuclear threats by Russia and more belligerent behavior by China, coupled with their extensive nuclear weapons buildups, the Trump Administration has a unique opportunity to change the course of American national security policy by moving forward expeditiously to improve the nation's protection against missile threats from U.S. adversaries. Though some actions have long lead times and may not be completed within President Trump's second term, other decisions and actions can be taken now to expedite progress toward defending the American people against deliberate, accidental, or coercive nuclear threats.

The recommendations that follow suggest actions that should be taken immediately to ensure the safety and security of Americans from all types of missile threats, including coercive nuclear threats against the U.S. homeland. Specifically, they include:

 Directing the full implementation of the president's Executive Order (E.O.) on "The Iron Dome for America" to improve U.S. missile defenses to defend against both rogue state and peer nation nuclear missile threats, including requesting the necessary fiscal resources to implement the E.O. in an urgent manner. Within days of taking office during the first Trump Administration, the president issued National Security Presidential Memorandum-1 (NSPM-1) on "Rebuilding the U.S. Armed Forces." This memorandum directed the Department of Defense to take immediate actions to strengthen the U.S. military, including conducting a Readiness Review, pursuing a National Security Strategy and National Defense Strategy, and initiating a Nuclear Posture Review and Missile Defense Review. This very first NSPM reflected the president's determination and commitment to improve U.S. military forces as a matter of urgency.

One week into his second term, President Trump issued an Executive Order, calling on the DoD leadership to move out expeditiously on developing, procuring, and deploying a robust missile defense capability for the U.S. homeland that can defend against and defeat any missile attack on the United States launched from anywhere. The E.O. "directs the implementation of a next generation missile defense shield for the United States against ballistic, hypersonic, advanced cruise missiles, and other next generation aerial attacks." This includes the accelerated development and deployment of both space-based sensors and space-based interceptors. This now must be followed by the allocation of sufficient fiscal resources to implement the president's direction and to do so with alacrity.

Overturning the Cold War notion that equates homeland vulnerability with "stability" would be a major accomplishment that refocuses the debate on missile defense and creates a broader understanding of the deterrence benefits of a robust missile defense posture for the U.S. homeland. Importantly, it would remove any uncertainty about the importance of developing and deploying missile defense systems capable of defending the

⁷⁶ The White House, "Rebuilding the U.S. Armed Forces," National Security Presidential Memorandum-1, January 27, 2017, available at https://irp.fas.org/offdocs/nspm/nspm-1.html.

nation against peer nuclear threats emanating from either Russia or China.

 Avoiding a lengthy and bureaucratic Missile Defense Review, and instead building on the 2019 MDR.

The 2019 MDR was a bureaucratic exercise involving numerous stakeholders with competing priorities. Consequently, it was not finalized and released until the second half of the first Trump Administration. This lengthy process—what the Chair of the bipartisan Strategic Posture Commission and one of its members called a "years-long guidance development process" and "hugely time consuming" — creates unnecessary delays and often results in lowest-common-denominator recommendations and solutions.

In reality, there is no need to replicate such a lengthy, time-consuming process. As noted above, direction and guidance can be promulgated directly from the White House without the need for consensus among various stakeholders. As one former government expert commented:

...Mr. Trump should restate the priority of homeland defense during the transition and on his first day in office. He must move quickly and achieve the key milestones in the first 18 to 24 months of his term. Major initiatives that challenge standard government procedures must be

⁷⁷ Madelyn Creedon and Franklin Miller, "Deterring the Nuclear Dictators," *Foreign Affairs*, November 20, 2024, available at https://www.foreignaffairs.com/united-states/deterring-nuclear-dictators.

undertaken before the bureaucracies reassert themselves.⁷⁸

As another former government official commented, another *Missile Defense Review* is unnecessary because "the reviews conducted in the first Trump Administration are still relevant." As he noted:

...the administration does not have to begin from scratch: it can build on its previous reviews, supplemented by the extensive analyses conducted by government and non-governmental experts. In fact, it would be policy malpractice to waste another year studying the problem, when options are likely readily available. The president can issue direction and guidance through the National Security Council to prepare a set of recommendations and options that can be included in the president's first budget request to Congress in the late spring or summer.⁷⁹

The president's instincts favoring defense of the homeland—reflected in his comments at the Pentagon in 2019 and, more recently, his call for creation of an "Iron Dome" to protect the nation against missile threats—are clear: the United States must be protected against the

-

⁷⁸ Robert Joseph, "Importance of building a homeland missile defense against all adversaries," *The Washington Times*, December 18, 2024, available at

https://www.washingtontimes.com/news/2024/dec/18/importance-building-homeland-missile-defense-adver/.

⁷⁹ Robert Soofer, Remarks at symposium on "Nuclear and Missile Defense Policy in the Second Trump Administration: What to Expect and What Should be Done," hosted by National Institute for Public Policy, November 20, 2024, printed in *Journal of Policy & Strategy*, Vol. 5, No. 1 (Fairfax, VA: National Institute Press, forthcoming 2025).

growing threat of missile attack of any type from anywhere.80

 Acknowledging the importance of a space-based missile defense layer including both sensors and shooters that can counter offensive missiles in their early stages of flight, well before they approach U.S. territory, and requesting the necessary resources to initiate the requisite kinetic and non-kinetic defensive programs.

Although a space-based missile defense layer to protect the nation is a longer-term prospect, the groundwork must be laid now to allow research and development of kinetic and non-kinetic defensive means to move forward expeditiously. This includes space-based interceptors as well as directed energy systems that have utility against multiple types of offensive missiles. In his Executive Order, President Trump highlighted the necessity of incorporating space-based assets in any homeland missile defense system, providing policy direction to the Department of Defense in this matter. The president must now propose funding for technology development in space-based missile defenses in his initial FY 2026 budget submission to Congress.

As a former senior National Security Council official stated, "This is not about cost or technology. A robust, space-based defense would likely cost a fraction of what is being spent on NGI, and the needed technologies have been

⁸⁰ The notion of an "Iron Dome" over the United States has been criticized by those who argue that the Israeli short-range missile defense system is inappropriate to defend the country against long-range intercontinental missile strikes. However, one analyst referred to this as a "'strawman' argument," noting that "Trump clearly has something more in mind, a broadly-based research and development program for a system—or, more likely, a system of systems—capable of working on a much grander scale." See James H. McGee, "Donald Trump's Star Wars: An 'Iron Dome' for the US," *The American Spectator*, December 27, 2024, available at https://spectator.org/donald-trumps-star-wars-an-iron-dome-for-the-u-s/.

achieved. This is about vision, determination and accountability."81

The administration should also seek to expedite development of the discriminating space sensor (DSS), a critical component of an effective space-based missile-tracking layer that will supplement the hypersonic- and ballistic-tracking space sensor (HBTSS). Currently, the DSS is not scheduled to launch until at least 2029.82 This schedule should be accelerated.

 Bolstering the missile defense role of the U.S. Space Force and directing the Secretary of Defense to designate the Chief of Space Operations as the senior U.S. official responsible for designing and developing an integrated air and missile defense system for the United States.

Organizational stovepipes and bureaucratic posturing among competing communities of interest, including the Services, Combatant Commands, and MDA, have created impediments to progress in improving U.S. homeland missile defenses. The creation of the Space Force opens up the possibility of alleviating these impediments by assigning responsibility for the homeland defense mission to a single Service with an understanding of the critical importance of space to national defense and the responsibility to protect the nation from space. This could also enhance opportunities to integrate space-based missile defense systems into an integrated missile defense architecture.

Designating the Chief of Space Operations as the key developer of a homeland missile defense architecture

⁸¹ Robert Joseph, "Importance of building a homeland missile defense against all adversaries," op. cit.

⁸² Courtney Albon, "Missile Defense Agency eyes discriminating space sensor launch by 2029," *Defense News*, August 19, 2024, available at https://www.defensenews.com/space/2024/08/19/missile-defenseagency-eyes-discriminating-space-sensor-launch-by-2029/.

would be consistent with the FY 2025 NDAA, which requires a single senior-level point of contact to oversee Service budgets, strategy, and acquisition and sustainment of an integrated air and missile defense architecture to ensure the defense of the nation against missile threats.

• Having Congress amend U.S. missile defense policy in the NDAA to allow for homeland missile defense protection against missiles of any type, in all phases of flight, and regardless of launch location. This includes clearly supporting spacebased missile defense capabilities and revoking any policy statement in law that explicitly or implicitly endorses exclusive reliance on strategic deterrence to defend the nation against strategic missile threats from nuclear peer adversaries.

As noted above, Congress has a major responsibility in establishing, modifying, or revoking U.S. missile defense policy. In addition, Congress provides the funding necessary to proceed with the programs required to implement policy decisions.

Although the language in the FY 2025 NDAA is generally supportive of missile defense activities, congressional support for a more robust homeland missile defense posture should be explicitly authorized in legislation and should be proposed by the administration in its FY 2026 budget submission. This includes policy direction to more forward expeditiously on both terrestrial and space-based elements of a homeland missile defense system, including space-based kinetic and non-kinetic intercept systems. The administration should also propose, and Congress should repeal, any statutory language that suggests the United States will continue to rely on strategic deterrence and the threat of offensive retaliation to protect the nation against long-range, intercontinental missile threats from peer nuclear states like China or Russia.

• Directing the deployment of a third ground-based interceptor site in the United States to augment the existing GBI sites at Fort Greely, Alaska and Vandenberg SFB, California.

Fortunately, the FY 2025 NDAA contained a requirement to establish a third ground-based interceptor site "at a location optimized to support the defense of the homeland of the United States from emerging long-range missile threats." Unfortunately, this requirement is not to be met until the end of 2030, far beyond the term of the Trump Administration. Consequently, it is not a near-term solution to the more immediate problem of defending the nation against growing missile threats from multiple adversaries.

In 2019, the Department of Defense determined that the most practical location for a third missile defense site in the United States would be at Fort Drum, NY. The Biden Administration refused to support building a third missile defense site, with then-Secretary of Defense Lloyd Austin arguing that "DOD does not have an operations requirement for a third site at this time." ⁸⁴ Yet, in light of the growing nuclear and missile threat to the homeland, the Trump Administration should not only declare its support for a third site but should direct that construction of such a site be expedited and include sufficient funding for its establishment and operation in the president's budget request.

⁸³ Section 1642 of the *Servicemember Quality of Life Improvement and National Defense Authorization Act for Fiscal Year* 2025 (Public Law 118-159), December 23, 2024, available at

https://www.congress.gov/bill/118th-congress/house-bill/5009/text?overview=closed.

⁸⁴ Cited in Alex Gault, "Does the U.S. need a third missile defense site? Analyst weighs in," *Watertown Daily Times*, October 12, 2024, available at https://www.yahoo.com/news/does-u-third-missile-defense-120300272.html.

 Proceeding with hardware and software upgrades to the 44 currently deployed GBIs to improve their capability to defend against rogue state missile threats from North Korea or Iran.

The current generation of GBIs operational in California and Alaska was initially deployed in 2004, after the United States withdrew from the ABM Treaty. These systems are more than two decades old and are intended to provide a modicum of protection against rogue state ballistic missile threats from North Korea and potentially Iran; their capabilities are extremely limited. They are hardly effective against more sophisticated missile threats both in quantity and quality.

Although their usefulness is limited, the capabilities of the deployed GBIs can be augmented with upgraded hardware and software modifications to improve the interceptors' ability to counter non-ballistic missile threats. Currently, it is estimated that only about one-third of the deployed GBIs have been retrofitted with updated hardware and software.⁸⁵ Though not ideal, this is a relatively short-term solution that can be implemented reasonably quickly to provide some additional missile defense capability.

 Expediting development and deployment of the Next Generation Interceptor (NGI) with multiple kill vehicles as an adjunct to, and ultimately replacement for, GBI.

Over time, the capability of the GBI system, even with hardware and software upgrades, will decline as offensive missile capabilities improve well beyond the capacity of the GBI system. The Next Generation Interceptor is intended initially to augment, and later replace, the current GBIs.

⁸⁵ DeBiaso and Soofer, op. cit.

Each planned NGI will carry multiple kill vehicles, increasing its effectiveness against potential missile attacks. This is a positive step that leverages technologies developed as part of the Multiple Kill Vehicle (MKV) program that was terminated by the Obama Administration in 2009 and will provide additional capability against missiles in their midcourse and descent phases of flight. Though not an ideal solution to the homeland defense problem, deployment of NGI can nevertheless be accelerated, and it can serve as one element of a layered defense system.

 Upgrading the SM-3 Block IIA interceptor to provide it with an anti-ICBM capability and restoring production of the SM-3 Block IB for regional defense.

The Biden Administration terminated production of the Standard Missile-3 Block IB in its FY 2025 budget submission in favor of the SM-3 Block IIA. Yet, its FY 2025 budget failed to offset the proposed reduction in SM-3 Block IB production with a commensurate increase in SM-3 Block IIA acquisition.⁸⁶

The Standard Missile interceptor was originally intended to intercept shorter-range missiles. However, in 2020, the U.S. Navy successfully conducted a test of the SM-3 Block IIA launched from an Aegis-class ship against an ICBM-class target. The test was responsive to congressional direction and was designed to determine the missile's "feasibility as part of an architecture for layered defense of

⁸⁶ Mackenzie Eaglen, "The U.S. Navy's Missile Production Problem Looks Dire," *The National Interest*, July 8, 2024, available at https://www.aei.org/op-eds/the-u-s-navys-missile-production-problem-looks-

dire/#:~:text=Given%20the%20spending%20constraints%20of,the%20S M%2D3%20Block%20IIA.

the homeland."⁸⁷ Despite this success, however, little has been done to improve the anti-ICBM capabilities of the SM-3.

The Trump Administration should direct the Navy to upgrade the SM-3 Block IIA interceptor to provide this enhanced capability and should propose funding for the upgrade program in its FY 2026 budget submission. It should also move to restore production of the SM-3 Block IB interceptor, which could provide a useful adjunct for homeland defense against shorter-range missile attacks launched from offshore.

 Deploying Terminal High Altitude Area Defense (THAAD) interceptors as part of a defensive "underlayer" to protect critical installations in the United States, including nuclear command and control sites and selected ICBM deployment locations.

As a terminal defense interceptor, THAAD has proven effective against short- and intermediate-range ballistic missiles, but with enhanced testing and modifications its capabilities can be expanded to provide additional defenses against longer-range missiles. It is also less costly than either GBIs or NGIs, notwithstanding their different capabilities and coverage areas.

Deployment of THAAD interceptors to protect the homeland would contribute to an effective layered homeland missile defense architecture.

• Employing Unmanned Aerial Systems (UASs) and manned fighter aircraft such as the F-35 with

⁸⁷ Department of Defense, "U.S. Successfully Conducts SM-3 Block IIA Intercept Test Against an Intercontinental Ballistic Missile Target," *News Release*, November 17, 2020, available at

https://www.defense.gov/News/Releases/Release/Article/2417334/us-successfully-conducts-sm-3-block-iia-intercept-test-against-an-intercontinen/.

advanced interceptors that can be used for boostphase defense.

As noted above, the F-35 can currently be employed to defeat adversary cruise missiles and can be fitted with more modern and sophisticated interceptors capable of defeating ballistic missiles in their boost phase. While basing locations and proximity to target are issues, the Trump Administration should direct the Air Force to pursue this option.

In addition, unmanned aerial systems should be fitted with advanced laser weapons and tasked with the boostphase missile defense mission. UASs have been fitted with munitions and adapted for offensive purposes and could also be adapted to perform critical missile defense missions.

 Expediting the development of kinetic and nonkinetic intercept technologies to defeat hypersonic missiles.

With both Russia and China developing offensive hypersonic missiles (including the "Oreshnik," which Russia characterizes as a hypersonic missile that can evade U.S. missile defenses),⁸⁸ the United States must accelerate the development of systems that can effectively counter hypersonic missile threats. One program is the Glide Phase Interceptor (GPI). Unfortunately, the FY 2025 budget request for GPI decreased by \$27 million from the previous year and, under the current budgetary and programmatic timeline, this capability is unlikely to be fielded before 2032.⁸⁹ Consequently, the Trump Administration should

⁸⁸ According to Vladimir Putin, "There is no chance of shooting down these Oreshnik missiles." See "Putin proposes missile duel with U.S. to test Russia's Oreshnik," *Reuters*, December 19, 2024, available at https://www.yahoo.com/news/putin-proposes-missile-duel-u-115938737.html.

⁸⁹ Senate Armed Services Committee, *Report to Accompany S.* 4638, *National Defense Authorization Act for Fiscal Year* 2025 (Report 118-188),

direct MDA to accelerate the program. Another hypersonic missile defense program, the Glide Breaker, overseen by the Defense Advanced Research Project Agency (DARPA), has entered Phase II of its development but is also relatively nascent.⁹⁰

As the former Commander of USNORTHCOM and NORAD testified in 2023, "Hypersonic weapons are extremely difficult to detect and counter given the weapons' speed and maneuverability, low flight paths and unpredictable trajectories.... I believe the greatest risk for the United States stems from our inability to change at the pace required by the changing strategic environment." This situation must not be allowed to continue, and the Trump Administration must make countering hypersonic missile threats a priority.

Conclusion

Progress in homeland missile defense has been stymied by outdated Cold War notions, declining funding, lack of prioritization, organizational and bureaucratic roadblocks, and ideologically based political opposition. Reluctance to

op. cit., p. 319. Also see Howard "Dallas" Thompson, "Hypersonic missile defense deserves predictable and sustainable funding," *Breaking Defense*, December 17, 2024, available at

https://breakingdefense.com/2024/12/hypersonic-missile-defense-deserves-predictable-and-sustainable-funding/.

⁹⁰ Joe Saballa, "Boeing Wins 'Glide Breaker' Hypersonic Missile Interceptor Phase II Deal," *The Defense Post*, September 11, 2023, available at https://thedefensepost.com/2023/09/11/boeing-glide-breaker-hypersonic/.

⁹¹ Cited in David Vergun, "General Says Countering Hypersonic Weapons Is Imperative," *DOD News*, May 10, 2023, available at https://www.defense.gov/News/News-

Stories/Article/article/3391322/general-says-countering-hypersonic-weapons-is-

imperative/#:~:text=Russia%20and%20China%20continued%20to,military%20planning%20account%20for%20that.

improve active defenses for the nation has been evident throughout successive administrations, both Republican and Democratic. In light of the growing threats to U.S. security from both peer nuclear adversaries and rogue states, the time has come to abandon the outdated thinking that American vulnerability to missile attack is a stabilizing feature of the international environment.

The U.S. homeland is more vulnerable than ever to offensive missile strikes from all kinds of missiles — ballistic, cruise, and hypersonic. America's main rivals are seeking to overturn the existing U.S.-led international order and are using their expanding nuclear weapons capabilities to underpin their more aggressive behavior and coercive threats. Allowing the homeland missile defense status quo to continue is no longer a prudent option — if it ever was.

The Trump Administration now has a unique opportunity to take America's missile defense policy and programs in a new direction. Acknowledging the benefits of protecting the homeland against missile strikes of any kind, launched from anywhere, is the first step. This should be followed by changes in policy guidance and direction from the White House to the Department of Defense that clearly demonstrate that defense of the homeland is a true "top priority." The president should reiterate his earlier calls for a missile defense posture that can effectively "detect and destroy any missile launched against the United States—anywhere, anytime, anyplace."

The administration should then propose to implement the programs identified in this *Occasional Paper* and should provide adequate funding to do so in the president's initial budget request to Congress, consistent with his Executive Order on "The Iron Dome for America." In addition, as part of the budget process, the Trump Administration should identify fixes to existing law and propose legislative language to Congress that will remove any confusion or

uncertainty over U.S. homeland missile defense policy and the need for a more robust national missile defense effort.

While some programs will take years to come to fruition, decisions can be taken now to move the ball forward. It will take presidential leadership and a serious commitment by senior level appointees to effectuate the necessary changes. Nothing short of this will suffice. It is time to ensure that the United States is not self-deterred from protecting its national security interests by coercive nuclear threats. The time for action is now. Hopefully, the Trump Administration is up to the task.

About the Author

Hon. David J. Trachtenberg is Vice President of the National Institute for Public Policy, a nonprofit research center in Fairfax, Virginia and teaches in Missouri State University's Defense and Strategic Studies Program.

Mr. Trachtenberg was confirmed by the U.S. Senate on October 17, 2017 as Deputy Under Secretary of Defense for Policy and served in this capacity until his retirement from government service in July 2019. He previously served as Principal Deputy Assistant Secretary of Defense for International Security Policy and as a Professional Staff Member with the House Committee on Armed Services (HASC) where he was head of the committee's policy staff and staff lead for the HASC Special Oversight Panel on Terrorism.

Mr. Trachtenberg is a two-time recipient of the Department of Defense Medal for Distinguished Public Service. He holds an A.B. in International Relations from the University of Southern California and a M.S. degree in Foreign Service from Georgetown University. He is the author of *The Lawgivers' Struggle: How Congress Wields Power in National Security Decision Making*, National Institute Press, 2020.

Previous National Institute Press Occasional Papers

Volume 4 (2024)

Christopher A. Ford, *Call it by its Name:*Communist Chinese Imperialism, November 2024

Mark B. Schneider, Current and Projected Growth of China's Nuclear Arsenal, October 2024

Keith B. Payne, Michaela Dodge, Matthew R. Costlow, David J. Trachtenberg, *The Pernicious Effects of Arms Control Misconceptions on Extended Deterrence and Assurance*, September 2024

Michaela Dodge, Trends in Allied Assurance: Challenges and Questions, August 2024

Michaela Dodge, ed., The 75th Anniversary of NATO's Founding: Lessons Learned and Challenges Ahead, July 2024

David J. Trachtenberg, The Demise of the "Two-War Strategy" and Its Impact on Extended Deterrence and Assurance, June 2024

Joseph R. DeTrani, *The North Korean Threat: Intelligence and Diplomacy – A Personal Memoir*, May 2024

Matthew R. Costlow, ed., *Expert Commentary on the 2023 Strategic Posture Commission Report*, April 2024

Steve Lambakis, Moving Missile Defense Sensors to Space, March 2024

Christopher A. Ford, Nuclear Posture and Nuclear Posturing: A Conceptual Framework for Analyzing China's Nuclear Weapons Policy, February 2024

Michaela Dodge, What Do Russia's Nuclear Threats Tell Us About Arms Control Prospects?, January 2024

Volume 3 (2023)

Jennifer Bradley, *The Democratization of Deterrence: The Impact of Individuals and the Private Sector on Strategic Deterrence*, November 2023

David J. Trachtenberg, ed., Lessons Learned from Russia's Full-Scale Invasion of Ukraine, October 2023

Keith B. Payne, *The Rejection of Intentional Population Targeting for "Tripolar" Deterrence*, September 2023

Mark B. Schneider, How Many Nuclear Weapons Does Russia Have? The Size and Characteristics of the Russian Nuclear Stockpile, August 2023

Matthew R. Costlow, Restraints at the Nuclear Brink: Factors in Keeping War Limited, July 2023

Gary L. Geipel, Reality Matters: National Security in a Post-Truth World, June 2023

John A. Gentry, Influence Operations of China, Russia, and the Soviet Union: A Comparison, May 2023

David J. Trachtenberg, ed., Expert Commentary on the 2022 Missile Defense Review, April 2023

Keith B. Payne, ed., *Expert Commentary on the* 2022 *Nuclear Posture Review*, March 2023

Michaela Dodge and Matthew R. Costlow, eds., *Expert Commentary on the 2022 National Security Strategy*, February 2023

Christopher A. Ford, Assessing the Biden Administration's "Big Four" National Security Guidance Documents, January 2023

Volume 2 (2022)

David J. Trachtenberg, *Deterring China in the Taiwan Strait: Potential Economic Tools for a Victory Denial Strategy,* December 2022

Kathleen C. Bailey, *China's Quest for a New International Order and Its Use of Public Diplomacy as a Means*, November 2022

Michaela Dodge, *Alliance Politics in a Multipolar World*, October 2022

Matthew R. Costlow, *Vulnerability is No Virtue and Defense is No Vice: The Strategic Benefits of Expanded U.S. Homeland Missile Defense*, September 2022

Keith B. Payne and David J. Trachtenberg, *Deterrence in the Emerging Threat Environment: What is Different and Why it Matters*, August 2022

Jennifer Bradley, *China's Nuclear Modernization and Expansion: Ways Beijing Could Adapt its Nuclear Policy*, July 2022

Christopher A. Ford, Building Partnerships Against Chinese Revisionism: A "Latticework Strategy" for the Indo-Pacific, June 2022

Ilan Berman, Crisis and Opportunity in U.S. Mideast Policy, May 2022

Michaela Dodge, Russia's Influence Operations in the Czech Republic, Poland, and Romania, April 2022

Keith B. Payne and Matthew R. Costlow, *Victory Denial: Deterrence in Support of Taiwan*, March 2022

Christopher A. Ford, *Defending Taiwan: Defense and Deterrence*, February 2022

Keith B. Payne, *Tailored Deterrence: China and the Taiwan Question*, January 2022

Volume 1 (2021)

Gary L. Geipel, Post-Truth and National Security: Context, Challenges, and Responses, December 2021

Thomas D. Grant, China's Nuclear Build-Up and Article VI NPT: Legal Text and Strategic Challenge, November 2021

Susan Koch, Securing Compliance with Arms Control Agreements, October 2021

Keith B. Payne and Michaela Dodge, *Stable Deterrence and Arms Control in a New Era*, September 2021

Steve Lambakis, *Space as a Warfighting Domain: Reshaping Policy to Execute 21st Century Spacepower*, August 2021

Matthew R. Costlow, A Net Assessment of "No First Use" and "Sole Purpose" Nuclear Policies, July 2021

David J. Trachtenberg, Michaela Dodge and Keith B. Payne, *The "Action-Reaction" Arms Race Narrative vs. Historical Realities*, June 2021

Matthew R. Costlow, Safety in Diversity: The Strategic Value of ICBMs and the GBSD in the Nuclear Triad, May 2021

David J. Trachtenberg, Congress' Role in National Security Decision Making and the Executive-Legislative Dynamic, April 2021

Bradley A. Thayer, *The PRC's New Strategic Narrative as Political Warfare: Causes and Implications for the United States*, March 2021

Michaela Dodge, Russia's Influence Operations in the Czech Republic During the Radar Debate and Beyond, February 2021

Keith B. Payne, *Redefining Stability for the New Post-Cold War Era*, January 2021