

# How the Upcoming Missile Defense Review Can Make America Safer

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## KEY TAKEAWAYS

The ongoing missile defense review (MDR) gives the Biden Administration an opportunity to outline how it will address the increasingly complex global missile threat.

The next MDR should reject the use of missile defense as a bargaining chip in arms control negotiations with Russia and China.

Instead, it should focus on protecting the U.S. by investing in capabilities that take advantage of missile defense's contribution to deterrence and stability.

The Biden Administration's missile defense review (MDR) has been underway since early summer 2021 and will likely be completed by the end of the year or early in 2022.<sup>1</sup> The Obama Administration conducted a Ballistic Missile Defense Review (BMDR) in 2010. It was followed by the Trump Administration's 2019 MDR, in which the word "ballistic" was dropped from the title to reflect the rise of missiles flying on other than ballistic trajectories.

The MDR gives the Administration an opportunity to outline the policies, strategies, and capabilities that it will pursue to address increasingly complex missile threats from around the world. As adversaries' missile arsenals grow in both number and diversity, the Biden Administration should invest in missile defense capabilities that take advantage of the contribution of missile defense to deterrence and stability.

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## The Worsening Missile Threat Environment

Even since 2019 when the most recent MDR was conducted, U.S. adversaries have increased their missile arsenals and have fielded new cruise and hypersonic missile capabilities.

- North Korea continues to pursue a nuclear intercontinental ballistic missile (ICBM) program—to include a new “monster” ICBM supposedly able to carry multiple warheads and decoys—that will enable it to strike the United States. It also recently tested ground-based and sea-based ballistic missiles and appears to be directing its missile advancements toward overcoming missile defenses.<sup>2</sup>
- Iran continues to maintain a missile arsenal capable of striking U.S. and allied assets in the Middle East and Europe and has conducted rocket launches that demonstrate that it either has or is developing the ability to build ICBMs.<sup>3</sup>

China and Russia, in addition to their vast ballistic missile inventories, are deploying new hypersonic glide vehicles and investing in new ground-launched, air-launched, and sea-launched cruise missiles that uniquely challenge the United States in different domains.

- China has advanced theater-range, dual-capable missiles like the DF-26 that can overcome U.S. missile defenses in the Indo-Pacific and strike U.S. assets—like Guam—with precision.<sup>4</sup>
- Russia is developing entirely new capabilities, such as a nuclear-powered cruise missile, that are intended to avoid U.S. sensors and missile defenses.
- Russia can also launch conventionally armed cruise missiles from both air and sea at the U.S. homeland from Russian territory, giving it the capability to strike the United States below the nuclear threshold.<sup>5</sup>

## Essential Principles for the MDR

Missile defense plays a critical role in addressing these advancing threats by contributing to deterrence of attack and protecting U.S. and allied

populations and forces should deterrence fail. The Biden Administration should focus on bolstering U.S. missile defenses and not accept any limits on missile defense that would disrupt U.S. abilities to defend and deter.

In particular, the next MDR should adhere to the following principles:

- **Recognize the benefits of missile defense to the United States and its allies.** Missile defense is not intended to intercept any missile launched at any location, as doing so would be both costly and technologically prohibitive. Rather, missile defense can deter attack by instilling doubt that an attack will work as intended, taking cheap shots off the table, and limiting the perceived value of missiles as tools of coercion. It allows space for diplomacy during a crisis and can protect critical assets should deterrence fail. To reap these benefits, the next MDR should boost funding for the Missile Defense Agency (MDA). The fiscal year (FY) 2022 MDA request of \$8.9 billion is actually a net decrease in real dollars from FY 2008, when threats were more benign.<sup>6</sup> Future budgets should be commensurate with the importance of missile defense.
- **Reject claims that missile defense disrupts strategic stability with Russia and China.** The United States' 44—and planned 64—homeland interceptors could not affect Russia's arsenal of around 1,550 warheads deployed on hundreds of ground-based, sea-based, and air-based platforms and hinder its second-strike capability. Nor could the U.S. addition of 20 more interceptors credibly said to be driving China's strategic nuclear breakout<sup>7</sup> or pace the Chinese threat, which is now expected to exceed Russia's capabilities.<sup>8</sup> Changing the strategic stability calculus with Russia and China would require large numbers of ground-based interceptors, which the United States has no plans to acquire.

History has shown that Russia and China pursue offensive nuclear capabilities regardless of U.S. missile defenses. For instance, after the United States agreed to the Anti-Ballistic Missile Treaty in 1972 and dismantled its Safeguard missile defense system, the Soviet Union pursued one of the largest force buildups in its history and tripled its deployed warheads over the next decade.<sup>9</sup> Similarly, China has increased its nuclear forces drastically in recent years despite the United States having made only minor upgrades to its homeland missile defense system.

Moreover, both Russia and China deploy advanced missile defense systems of their own, including Russia's 68 nuclear-armed interceptors around Moscow and both countries' advanced air defenses that can intercept U.S. ballistic missiles.<sup>10</sup> By Russia's and China's own logic, if U.S. missile defense disrupts their assured retaliatory capabilities, their own missile defenses would be just as—if not more—destabilizing. The next MDR should reject accepting any limits to U.S. missile defenses as well as attempts to prevent the pursuit of missile defenses that can help the United States deter attack and defend American territory and interests.

- **Advance capabilities to detect and track all missile threats.** As acknowledged in the 2019 MDR, adversaries are investing in cruise and hypersonic missiles that fly at low altitudes and can maneuver during flight, making them difficult to track using legacy space-based early warning sensors and ground-based and sea-based radars. Continuing to invest in a space-based layer of proliferated satellites that can track a missile's entire flight therefore remains critical.

In particular, the MDR should prioritize speedy deployment of the Hypersonic and Ballistic Tracking Space Sensor, for which President Biden's FY 2022 budget includes \$256 million.<sup>11</sup> This effort should remain a top priority because, as stated by General John Hyten, Vice Chairman of the Joint Chiefs of Staff, "If you can't see it, you can't shoot it. And if you can't see it, you can't deter it either."<sup>12</sup> For instance, the United States can deter use of a hypersonic glide vehicle, even if lacking an intercept capability, by threatening an immediate response—but only if the United States can see the launch in the first place.

- **Maintain the policy of outpacing the rogue state threat to the homeland.** The United States has consistently maintained the policy of, at minimum, being able to defend the homeland from a limited or rogue state missile attack.<sup>13</sup> Rogue states like North Korea use their offensive capabilities in strategies of coercion or blackmail to extract concessions from the United States. They also may use nuclear weapons to decouple the United States from its allies by sowing doubt that the United States would come to allies' defense if the U.S. homeland were under nuclear threat. If the United States can protect the homeland from attacks by rogue states, it can remove these dangerous options for North Korea by undermining confidence that its attack will succeed.

To outpace the rogue state threat, the Biden Administration must continue the Next Generation Interceptor (NGI) program, scheduled for initial delivery in 2028. Compared to the current ground-based interceptors, which were hastily developed in the early 2000s using many existing parts, NGI will have advanced capabilities tailored to the missile defense mission. For instance, NGI will carry multiple kill vehicles that enable a single NGI to intercept multiple objects—including warheads and decoys—in a single threat cloud. It will also have improved on-board sensor capabilities to detect and discriminate among incoming objects. As North Korea improves its capabilities to add multiple warheads and decoys to its ballistic missiles, this upgrade is needed to keep up with the North Korean threat.<sup>14</sup>

- **Commit to the defense of deployed U.S. forces and allies against advanced regional missile threats.** The United States should protect forces abroad both to enable U.S. operations and to defend critical assets. This task becomes more challenging as adversaries expand their missile arsenals and field advanced capabilities like precision strike missiles and hypersonic munitions.

In particular, the Biden Administration should commit to fielding an advanced defense system on Guam as quickly as possible to defend against Chinese advanced cruise and ballistic missiles.<sup>15</sup> It should also accelerate acquisition of the Glide Phase Interceptor to defend against Russian and Chinese hypersonic vehicles deployed on sea-based, air-based, or ground-based platforms. Finally, the United States should continue to procure regional defense capabilities like THAAD, PAC-3, and SM-3 shooters to protect more assets from adversaries' growing missile stockpiles.

- **Ensure that U.S. capabilities can hedge against changes in the threat.** The next MDR must assume a dynamic threat environment in which future changes might warrant different or additional missile defense capabilities. Maintaining such hedging capabilities is necessary to minimize risk. For example, the Obama Administration decided to maintain U.S. homeland interceptor capacity at 30 in the 2010 BMDR but was able to increase capacity to 44 after North Korean provocations in 2013.<sup>16</sup>

One way the Biden Administration can hedge against future threats is to advance more quickly the SM-3 Block IIA interceptor and THAAD system for use as an additional layer of homeland missile defense.<sup>17</sup> Research and development of advanced interceptors should also remain active to ensure that the United States does not have to start from scratch when current systems begin to age.

- **Invest in future advanced missile defense technologies.** Prioritizing innovation in missile defense capabilities is critical to ensuring future defense against advanced or numerous missile threats with potentially more cost-effective technology. For example, General Hyten recently explained that directed energy has the capability to intercept cruise and ballistic missiles at a lower cost than ground-based interceptors.<sup>18</sup>

The House Armed Services Committee's version of the FY 2022 defense authorization bill would rightly prioritize directed energy investment by moving its budget authority back to the MDA, from which it was removed in 2020.<sup>19</sup> The next MDR should focus on ensuring that the MDA has the authorities required to develop and field advanced technologies once they become available and avoid paralyzing the MDA with policy and fiscal constraints.

## Conclusion

The Biden Administration's MDR should reject claims that missile defense is dangerous and should be used as a bargaining chip in negotiations with Russia and China. Rather, to advance U.S. national security, the next MDR should be grounded in the basic theory that missile defense contributes to deterrence and stability and should bolster U.S. capabilities accordingly.

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## Endnotes

1. Jason Sherman, "Biden Administration Missile Defense Review Launch 'Imminent,'" *Inside Defense*, June 9, 2021, <https://insidedefense.com/daily-news/biden-administration-missile-defense-review-launch-imminent> (accessed September 27, 2021).
2. Mary Beth D. Nikitin, "North Korea's Nuclear Weapons and Missile Programs," Congressional Research Service *In Focus* No. 10472, updated April 14, 2021, <https://fas.org/sgp/crs/nuke/IF10472.pdf> (accessed September 27, 2021).
3. Sune Engel Rasmussen, "Iran Launches New Rocket, Showing Advances in Potential Missile Technology," *The Wall Street Journal*, updated February 1, 2021, <https://www.wsj.com/articles/iran-launches-new-rocket-showing-advances-in-potential-missile-technology-11612214948> (accessed September 27, 2021).
4. See U.S. Department of Defense, Office of the Secretary of Defense, *Military and Security Developments Involving the People's Republic of China, 2020: Annual Report to Congress*, pp. 55–56, <https://media.defense.gov/2020/Sep/01/2002488689/-1/-1/1/2020-DOD-CHINA-MILITARY-POWER-REPORT-FINAL.PDF> (accessed September 27, 2021).
5. General Glen VanHerck, United States Air Force, Commander, United States Northern Command and North American Aerospace Defense Command, statement before the Committee on Armed Services, U.S. Senate, March 16, 2021, pp. 3–4, [https://www.armed-services.senate.gov/imo/media/doc/VanHerck\\_03-16-21.pdf](https://www.armed-services.senate.gov/imo/media/doc/VanHerck_03-16-21.pdf) (accessed September 27, 2021).
6. See Rebecca Heinrichs, "To Make up for Years of Slow Policy Decisions, MDA Needs More Cash," *Breaking Defense*, August 12, 2021, <https://breakingdefense.com/2021/08/to-make-up-for-years-of-slow-policy-decisions-mda-needs-more-cash/> (accessed September 27, 2021).
7. Aaron Mehta, "STRATCOM Chief Warns of Chinese 'Strategic Breakout,'" *Breaking Defense*, August 12, 2021, <https://breakingdefense.com/2021/08/stratcom-chief-warns-of-chinese-strategic-breakout/> (accessed September 27, 2021).
8. Michael Martina, "China Will Soon Surpass Russia as a Nuclear Threat—Senior U.S. Military Official," Reuters, August 27, 2021, <https://www.reuters.com/world/china/china-will-soon-surpass-russia-nuclear-threat-senior-us-military-official-2021-08-27/> (accessed September 27, 2021).
9. Matthew R. Costlow, "The Missile Defense 'Arms Race' Myth," *Strategic Studies Quarterly*, Vol. 15, No. 1 (Spring 2021), p. 4, [https://www.airuniversity.af.edu/Portals/10/SSQ/documents/Volume-15\\_Issue-1/Costlow.pdf](https://www.airuniversity.af.edu/Portals/10/SSQ/documents/Volume-15_Issue-1/Costlow.pdf) (accessed September 27, 2021).
10. Fact Sheet, "Chinese and Russian Missile Defense: Strategies and Capabilities," U.S. Department of Defense, July 28, 2020, [https://media.defense.gov/2020/Jul/28/2002466237/-1/-1/1/CHINESE\\_RUSSIAN\\_MISSILE\\_DEFENSE\\_FACT\\_SHEET.PDF](https://media.defense.gov/2020/Jul/28/2002466237/-1/-1/1/CHINESE_RUSSIAN_MISSILE_DEFENSE_FACT_SHEET.PDF) (accessed September 27, 2021).
11. Video, "MDA Holds Briefing on FY22 Defense Budget," U.S. Department of Defense, May 28, 2021, <https://www.defense.gov/Watch/Video/videoid/799271/dvcc/false/#DVIDSVideoPlayer581> (accessed September 27, 2021).
12. Samantha Beu, "Sensor Tech Key to Effective Missile Defense," *National Defense*, April 2, 2021, <https://www.nationaldefensemagazine.org/articles/2021/4/2/sensor-tech-key-to-effective-missile-defense> (accessed September 27, 2021).
13. The 2010 BMDR prioritized "protecting the homeland from a ballistic missile attack by a regional actor such as North Korea or Iran." The 2019 MDR stated that U.S. missile defense "must outpace existing and potential rogue state offensive missile capabilities." And current policy as defined by the National Defense Authorization Act for Fiscal Year 2020 is to defend the United States "against the developing and increasingly complex missile threat posed by rogue states." U.S. Department of Defense, Office of the Secretary of Defense, *Ballistic Missile Defense Review Report*, February 2010, p. 11, [https://dod.defense.gov/Portals/1/features/defenseReviews/BMDR/BMDR\\_as\\_of\\_26JAN10\\_0630\\_for\\_web.pdf](https://dod.defense.gov/Portals/1/features/defenseReviews/BMDR/BMDR_as_of_26JAN10_0630_for_web.pdf) (accessed September 27, 2021); U.S. Department of Defense, Office of the Secretary of Defense, *2019 Missile Defense Review*, p. V, <https://media.defense.gov/2019/Jan/17/2002080666/-1/-1/1/2019-MISSILE-DEFENSE-REVIEW.PDF> (accessed September 27, 2021); and National Defense Authorization Act for Fiscal Year 2020, Public Law 116-92, 116th Cong., December 20, 2019, Section 1681, <https://www.congress.gov/116/plaws/publ92/PLAW-116publ92.pdf> (accessed September 27, 2021).
14. See Patty-Jane Geller, "It's Time to Get Homeland Missile Defense Right," *Defense News*, January 4, 2021, <https://www.defensenews.com/opinion/commentary/2021/01/04/its-time-to-get-homeland-missile-defense-right/> (accessed September 27, 2021).
15. See Patty-Jane Geller, "Missile Defense for Guam Needed to Improve Deterrence in the Indo-Pacific," Heritage Foundation *Issue Brief* No. 5203, July 19, 2021, <https://www.heritage.org/missile-defense/report/missile-defense-guam-needed-improve-deterrence-the-indo-pacific>.
16. Nuclear Threat Initiative, "Pentagon to Field Additional Ballistic Missile Interceptors in Alaska," March 15, 2013, <https://www.nti.org/gsn/article/pentagon-field-extra-missile-interceptors-calif-alaska-report/> (accessed September 27, 2021).
17. See Vic Mercado, "Why America Needs a Layered Homeland Missile Defense," *Defense News*, January 19, 2021, <https://www.defensenews.com/opinion/commentary/2021/01/19/why-america-needs-a-layered-homeland-missile-defense/> (accessed September 27, 2021).
18. John Grady, "Hyten: China's 'Unprecedented Nuclear Modernization' Chief Concern," U.S. Naval Institute News, September 14, 2021, <https://news.usni.org/2021/09/14/hyten-chinas-unprecedented-nuclear-modernization-chief-concern> (accessed September 27, 2021).
19. H.R. 4350, National Defense Authorization Act for Fiscal Year 2022, 117th Cong., 1st Sess., Section 1641, <https://www.congress.gov/117/bills/hr4350/BILLS-117hr4350rh.pdf> (accessed September 27, 2021).