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## Time to Reassess U.S. Missile Defense Policy

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A recent Russian press story noted that a new Russian intercontinental ballistic missile (ICBM) armed with multiple nuclear warheads – dubbed the "Sarmat" – can "wipe out Texas" and circumvent any U.S. missile defense system.<sup>1</sup> Unfortunately, the United States has no defensive system designed to stop it and no apparent intention of building one. Residents of the Lone Star state can take some solace, however, in the knowledge that their vulnerability to nuclear attack from Russian missiles is shared by the rest of the nation.

While the importance of missile defenses for the protection of regional forces and the assurance of allies is no longer in dispute, the role such defenses should play in defending the American homeland remains controversial. Ironically, nearly a decade and a half after the United States withdrew from the 1972 Anti-Ballistic Missile (ABM) Treaty, which prohibited an effective nationwide defense against Soviet missile attack, the U.S. population remains hostage to Russian nuclear missile threats. As the chill in U.S.-Russian relations becomes deeper, it is time to reassess this policy.

Russian statements about the Sarmat highlight a troubling fact: Moscow is engaged in a massive nuclear modernization program, reportedly developing several new types of long-range missiles that can strike the United States.<sup>2</sup> The Sarmat, which according to Russian sources can carry a payload of up to 10 tons and deploy around a dozen independently-targetable warheads, is only one example.<sup>3</sup> The

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Russian press has noted that the Sarmat could attack a target "from any direction" – for example, it "could start from Russia and fly in the direction of Antarctica, make a circumterrestrial flight and hit targets on the other side of the planet from an unexpected direction."<sup>4</sup> It is not difficult to imagine at which targets "on the other side of the planet" Russia may be aiming.

The Russian ICBM force reportedly also is being augmented by other new silo-based and roadmobile systems, and a new rail-mobile ICBM is reportedly under development. In addition, a new strategic ballistic missile firing submarine and a new sea-launched ballistic missile are apparently under development.<sup>5</sup>

There are no serious US defenses against these missiles; if launched, they would have a free ride to their targets. It will fall to the next president to exercise the constitutional responsibility to "provide for the common defense" by deciding if and how to address this unsettling reality.

Moscow's greater assertiveness on the world stage and its growing anti-American posture has led U.S. military officials to declare Russia the greatest threat to the United States.<sup>6</sup> The number of strategic nuclear weapons deployed by Russia against the United States has increased since the signing of the New START Treaty in 2010 while U.S. totals have declined.<sup>7</sup>

But U.S. policymakers remain wedded to the Cold War belief that defending against Russian nuclear attack would upset the supposed "balance of terror" and be "destabilizing." Consequently, our missile defense efforts are modest at best, directed against limited threats from rogue states like North Korea, and deliberately leave Americans exposed to nuclear annihilation from major nuclear powers like Russia and China.

For example, the Obama administration's February 2010 Ballistic Missile Defense Review Report states, "Today, only Russia and China have the capability to conduct a large-scale ballistic missile attack on the United States, but this is very unlikely and not the focus of U.S. BMD [ballistic missile defense]."<sup>8</sup> In addition, the 2010 Nuclear Posture Review states that "our missile defenses... are designed to address newly emerging regional threats, and are not intended to affect the strategic balance with Russia."<sup>9</sup>

Some positive steps are being proposed to improve U.S. missile defense capabilities against limited threats, though these will have meager utility against Russia's formidable nuclear arsenal. For example, the United States expects to deploy by the end of next year an additional 14 Ground-Based Interceptors (GBIs) to augment the 30 GBIs already stationed in Alaska and California, which are intended to counter limited missile threats from the likes of North Korea.<sup>10</sup> In addition, planned capability improvements to the GBI include a new Redesigned Kill Vehicle (RKV) and a follow-on successor, the Multi-Object Kill Vehicle (MOKV).<sup>11</sup> Congress has also pressed for adoption of a third interceptor site on the east coast.<sup>12</sup>

These steps are necessary and prudent, but they will in no way counter the extensive nuclear firepower of Moscow's strategic arsenal. Moreover, funding for these programs is problematic given the Obama administration's fiscal priorities and the prospects for the return of arbitrary and damaging across-the-board budget cuts knows as "sequestration."<sup>13</sup> Even if fully funded, however, these improvements alone cannot protect Americans from Moscow's increasingly strident nuclear sabre rattling or defend the U.S. homeland against the multitude of newer and more sophisticated nuclear-armed missiles being developed and deployed by Russia.

It will take a significantly greater investment in advanced game-changing technologies, like directed energy systems, a reinvigorated test program, and a refocused effort to counter more sophisticated systems to protect the American people against Russia's growing nuclear threat. To date, the Missile Defense Agency (MDA) has expressed general support for directed energy systems to counter ballistic missile threats. MDA has declared that directed energy could "shift the calculus" of potential adversaries and "revolutionize missile defense, dramatically reducing, if not eliminating, the role of



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interceptors."<sup>14</sup> MDA's Director, Vice Admiral J.D. Syring, has testified that "non-kinetic technologies" like lasers deployed on unmanned aerial vehicles, would be more cost-effective than the current ballistic missile defense system.<sup>15</sup>

But terrestrial-based systems alone have some significant limitations.<sup>16</sup> It likely will also take a robust commitment to develop space-based defenses – something the Obama administration refuses to pursue – which can defeat missiles in their early stages of flight when they are easiest to track and target and most vulnerable to countermeasures.

Several studies have cited the potential advantages of space-based defenses. Such defenses "would provide the widest area of coverage and the greatest number of shots against enemy warheads."<sup>17</sup> They would also be able to counter ballistic missiles launched "from anywhere in the world."<sup>18</sup> Yet the Obama administration believes such an approach would be costly and destabilizing. Admiral Syring has testified that the cost would be "overwhelming" and has expressed "serious concerns about the technical feasibility of interceptors in space and… the long-term affordability of a program like that."<sup>19</sup>

This effort undoubtedly is technologically challenging, but if effective, the payoff would be worth the effort and considerably shift the offense-defense cost-benefit ratio in favor of the defense. As one detailed assessment concluded, "Indeed, far from sparking a costly and deadly arms race, the deployment of a robust, global, space-based missile defense is likely to make it more expensive, and therefore less attractive, for other states to build missiles or to engage in regional arms races based on the deployment of missiles."<sup>20</sup>

In their respective versions of the annual National Defense Authorization Act for Fiscal Year 2017, both the House and Senate Armed Services Committees recognized the importance of countering Moscow's nuclear threats and called for developing and integrating space-based missile defenses into the U.S. missile defense architecture. The Senate Armed Services Committee also called for more robust flight testing of missile defense interceptors and both committees support a policy of broadening U.S. territorial defense against more than just "limited" ballistic missile strikes.<sup>21</sup>

These important steps would help make it clear that continued American vulnerability to Russian nuclear missiles is unacceptable. However, the White House "strongly objects" to this approach, reiterating that "the U.S. homeland missile defense system is designed and deployed to counter limited attacks (in number and sophistication) from Iran and North Korea, and not to counter the strategic deterrence forces of Russia and China."<sup>22</sup>

Critics assert that more robust missile defense efforts that could offer at least a modicum of protection against Moscow's formidable nuclear missile arsenal – including space-based systems that could have utility against the newer generation of more sophisticated and deadly Russian ballistic missiles – are unnecessary, unworkable, and unaffordable. Unnecessary because the Russian nuclear threat is overblown and exaggerated. Unworkable because the technologies to counter sophisticated missile systems, including those using decoys, maneuvering warheads, and other penetration aids are nascent and difficult if not impossible to perfect. And unaffordable because the financial cost of proceeding down this path would be prohibitively expensive, especially in an era of budgetary constraints.<sup>23</sup> These arguments are flawed or open to question.

According to Russian officials, Russia's strategic nuclear modernization program is a top priority, suggesting that Moscow does not share the widely held Western view that nuclear weapons have declining relevance and utility in the 21<sup>st</sup> century.<sup>24</sup> Russia's military doctrine identifies the United States and NATO as the main external military threats to the Russian Federation<sup>25</sup> and, as Deputy Secretary of Defense Robert Work and former Vice Chairman of the Joint Chiefs of Staff Admiral James Winnefeld have testified, "includes what some have called an 'escalate to deescalate' strategy, a strategy that



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purportedly seeks to de-escalate a conventional conflict through coercive threats, including limited nuclear use."<sup>26</sup> In addition, the magnitude and scope of Russia's strategic force exercises involving nuclear forces and simulated nuclear strikes is unprecedented.<sup>27</sup> It would be irresponsible to dismiss these developments as irrelevant to U.S. strategic deterrence and defense requirements.

Development of space-based missile defenses and directed energy systems should not be dismissed as impossible. At one point, even the "hit to kill" technology on which all current U.S. missile defense systems are based was considered unrealistic because of the difficulty of "hitting a bullet with a bullet."<sup>28</sup> U.S. missile defense technology has advanced significantly over the decades, past research efforts in this area can be leveraged, and promising new concepts are worthy of exploration and exploitation.<sup>29</sup> The path to success may not be easy or quick, but one thing is clear – we will never succeed if we refuse to try.

Finally, the critics' charge that investment in more robust missile defenses would be unaffordable is a false narrative. Affordability is simply a reflection of national priorities. Additional investment in anything is criticized as "unaffordable" when it competes against higher priority items. But it is difficult to argue that protecting Americans against threats from a country that possesses the world's largest nuclear arsenal, is increasingly hostile to American interests, and has brazenly threatened to use nuclear weapons does not merit higher priority than the lack of attention it has received to date.

Given that the entire \$8 billion missile defense budget constitutes just over one percent of all defense spending, the unaffordability argument is baseless; yet it has become a convenient rationalization for those who argue that additional missile defense capabilities would be destabilizing and should not be pursued.<sup>30</sup> Likewise, the notion that additional investment in missile defenses would deprive other more urgent or useful programs of necessary resources – an argument often made by opponents of U.S. nuclear modernization – is logically flawed.<sup>31</sup> If spending more money on missile defense is "unaffordable," why would spending that money on other programs be "affordable"? Critics of a more robust U.S. nuclear and missile defense posture never explain this logical inconsistency. These are matters of priority.

As Moscow's nuclear threats mount, it is essential to convince Russia that the United States will not continue a policy of unmitigated vulnerability to Moscow's threats. The next administration must act forcefully and unequivocally. Doing so will bolster deterrence and strengthen American security. It can also enhance the credibility of extended nuclear deterrence, as U.S. allies are likely to put greater stock in American security guarantees if the U.S. homeland is no longer vulnerable to Russian nuclear threats. Finally, like President Reagan's "peace through strength" policy, it will also demonstrate a level of seriousness and resolve that will likely garner a measure of respect in the Kremlin in ways that could ultimately prove beneficial to our longer-term relationship with Russia.

The message to Russian President Vladimir Putin must be "Don't mess with Texas" – and don't threaten the United States of America.



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- 3. "'Satan' Replacement Sarmat Ready for Launch, Flight Trials Next Year Repprt," *RT*, November 17, 2015, available at https://www.rt.com/news/322408-sarmat-icbm-ready-trials/.
- 4. "Hypersonic Warhead for Future ICBM successfully tested in Russia Report," *RT*, April 22, 2016, available at https://www.rt.com/news/340588-hypersonic-warhead-sarmat-tested/.
- 5. National Institute for Public Policy, "Russia's Nuclear Posture," op. cit. For a detailed description of Russia's nuclear modernization programs, see Mark Schneider, "Russian Nuclear Modernization, the Ukraine Crisis, and the Threat to NATO," Remarks to the Air Force Association, National Defense Industrial Association, and Reserve Officers Association Capitol Hill Forum, 14 April 2015, available at https://higherlogicdownload.s3.amazonaws.com/AFA/63e0124a-9fef-4973-95ab-b18225a8c855/UploadedImages/Events/Heussy/Spacepower/041415blankschneiderfinal.pdf. Also see Mark Schneider's comments on "Russia's New Strategic Doctrine and Capabilities" before the same forum on April 20, 2016.
- See, for example, J.D. Leipold, "Milley: Russia No. 1 Threat to US," Army News Service, November 4, 2015, available at https://www.army.mil/article/158386/Milley\_Russia\_No\_1\_threat\_to\_US/; and "U.S. Defense Secretary: Russia is Main Threat to U.S. Security," The Moscow Times, March 18, 2016, available at http://www.themoscowtimes.com/news/article/usdefense-secretary-russia-is-main-threat-to-us-security/562932.html.
- 7. According to official figures released by the U.S. State Department, the number of deployed Russian strategic nuclear warheads increased after the New START Treaty's entry into force from 1,566 as of 1 September 2011 to 1,735 as of 1 March 2016, while the U.S. total of deployed strategic nuclear warheads declined from 1,790 to 1,481 over the same time period. See New START Treaty Fact Sheets, available at http://www.state.gov/t/avc/newstart/c39906.htm. Also see Michaela Dodge, "New Strategic Arms Reduction Treaty: Time to Stop the Damage to U.S. National Security," Backgrounder, *The Heritage Foundation*, June 20, 2016, available at http://www.heritage.org/research/reports/2016/06/new-strategic-arms-reduction-treaty-time-to-stop-the-damage-to-us-national-security.
- 8. U.S. Department of Defense, *Ballistic Missile Defense Review Report* (Washington, D.C.: Department of Defense, February 2010), p. 4, available at http://archive.defense.gov/bmdr/docs/BMDR%20as%20of%2026JAN10%200630\_for%20web.pdf.
- 9. U.S. Department of Defense, *Nuclear Posture Review* (Washington, D.C.: Department of Defense, April 2010), p. x, available at http://www.defense.gov/Portals/1/features/defenseReviews/NPR/2010\_Nuclear\_Posture\_Review\_Report.pdf.
- Rachel Oswald, "The Pentagon Wants To Buy 14 More Ground-Based Interceptor Missiles," *Global Security Newswire*, June 23, 2014, available at http://www.defenseone.com/technology/2014/06/hitting-bullet-bullet-us-missile-defense-gets-boost-after-successful-test/87073/.
- 11. The Obama administration has requested \$274 million for the RKV and \$71.5 million for the MOKV in fiscal year 2017. However, both programs are subject to modification as part of the ongoing defense appropriations process.
- 12. The National Defense Authorization Act for Fiscal Year 2013 (Public Law 112-239) directed a study on a potential third missile defense interceptor site in the United States. That study was recently completed. See Jen Judson, "MDA Poised To Choose Preferred East Coast Missile Defense Site," *Defense News*, June 2, 2016, available at http://www.defensenews.com/story/defense/2016/06/02/mda-poised-choose-preferred-east-coast-missile-defense-site-soon/85288634/.



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- 13. The Bipartisan Budget Act of 2015 provided a two-year respite from the automatic budget cuts known as the "sequester" mandated by the Budget Control Act of 2011. However, without congressional action, additional cuts will be imposed beginning in fiscal year 2018. As Frank Kendall, Under Secretary of Defense for Acquisition, Technology and Logistics, has stated, "The specter of sequestration is alive and well, and will haunt us as we prepare the FY '18 budget next year." Frank Kendall, "Kendall: The Specter of Sequestration Will Haunt Us," *Defense News*, January 4, 2016, available at http://www.defensenews.com/story/defense/commentary/2015/12/13/kendall-specter-sequestration-haunt-us/76906458/.
- 14. Missile Defense Agency, "Fact Sheet: Advanced Technology," *Missile Defense Agency*, May 4, 2015, available at http://www.mda.mil/global/documents/pdf/advsys.pdf.
- 15. See testimony before the Senate Armed Services Committee Subcommittee on Strategic Forces, April 13, 2016, available at http://www.armed-services.senate.gov/imo/media/doc/Syring\_04-13-16.pdf.
- 16. For a discussion of this point and the advantages provided by space-based systems, see Steven Lambakis, "Missile Defense From Space," Policy Review, *The Hoover Institution*, February 1, 2007, available at http://www.hoover.org/research/missiledefense-space. Also see Steven Lambakis, *The Future of Homeland Missile Defenses*(Fairfax, VA: National Institute Press, 2014), available at http://www.nipp.org/wp-content/uploads/2014/12/Future-of-Homeland-Missile-Defenses.pdf.
- 17. The Institute for Foreign Policy Analysis, *Report of the Independent Working Group on Missile Defense, the Space Relationship, and the Twenty-First Century* (Washington, D.C.: The Institute for Foreign Policy Analysis, 2009), p. 26, available at http://www.ifpa.org/pdf/IWG2009.pdf.
- 18. Ibid., p. 26.
- J.D. Syring, "Prepared Statement," House Armed Services Committee, 114th Congress, April 14, 2016, available at http://docs.house.gov/meetings/AS/AS29/20160414/104621/HHRG-114-AS29-Wstate-SyringJ-20160414.pdf.
- 20. Institute for Foreign Policy Analysis, Report of the Independent Working Group on Missile Defense, the Space Relationship, and the Twenty-First Century, op. cit., p. 47.
- 21. For example, section 1656 of the House-passed National Defense Authorization Act (NDAA) for Fiscal Year 2017 (H.R. 4909) calls for planning to research and develop a space-based missile defense capability and section 1665 would amend U.S. policy in support of a "robust layered defense system." Section 1663 of the Senate Armed Services Committee version of the FY17 NDAA amends existing law to allow for research and development of a space-based layer to the ballistic missile defense system.
- 22. See Office of Management and Budget, "Statement of Administration Policy," June 7, 2016, p. 6, available at https://www.whitehouse.gov/sites/default/files/omb/legislative/sap/114/saps2943s\_20160607.pdf.
- 23. See, for example, Union of Concerned Scientists, "Space-Based Defenses: Fact Sheet," Union of Concerned Scientists, May 2015, available at http://www.ucsusa.org/sites/default/files/attach/2015/06/Space%20Based%20Missile%20Defense%20Fact%20 Sheet.pdf; Also see Steven Pifer, "Overblown: Russia's Empty Nuclear Sabre-Rattling," The National Interest, March 17, 2015, available at http://nationalinterest.org/feature/overblown-russias-empty-nuclear-sabre-rattling-12432.
- 24. The Chief of Russia's General Staff, Army General Valery Gerasimov, has stated "Supporting the strategic nuclear forces is our priority." See Dmitriy Rogulin, "Russian Armed Forces to Get 9 Upgraded Strategic Bombers in 2016 General Staff," *TASS*, January 22, 2016, available at http://tass.ru/en/defense/851596.
- 25. See "The Military Doctrine of the Russian Federation," December 25, 2014, available at http://rusemb.org.uk/press/2029.
- Robert Work and James Winnefeld, "Prepared Statement," House Armed Services Committee, 114th Congress, June 25 2015, available at http://docs.house.gov/meetings/AS/AS00/20150625/103669/HHRG-114-AS00-Wstate-WinnefeldJrUSNJ-20150625.pdf.



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- 28. One analyst cited the "convincing arguments" of missile defense critics that "missile defence is technologically impossible: how in any credible way to hit a bullet with a bullet?," See Bertel Heurlin, "Missile Defense in the United States," in Bertel Heurlin and Sten Rynning, editors, *Missile Defence: International, Regional, and National Implications* (New York: Routledge Taylor & Francis Group, 2005), pp. 65, 68.
- 29. For a brief discussion of space-based missile defense options, see Marvin Baker Schaffer, "Time to Revive Debate About Space-Based Missile Defense," *National Defense*, October 2014, available at http://www.nationaldefensemagazine.org/archive/2014/October/Pages/TimetoReviveDebateAboutSpaceBasedMissileDefense.aspx.
- 30. One critic has referred to the cost of earlier space-based missile defense efforts as "astronomical" and cited former Secretary of Defense Robert Gates as saying more robust missile defenses would be "unbelievably expensive." See Philip Coyle, "'Limited' Missile Defense Must Remain So," *Breaking Defense*, June 22, 2016, available at http://breakingdefense.com/2016/06/limitedmissile-defense-must-remain-so-philip-coyle/.
- 31. Some critics have argued that missile defense funds should be spent on "more pressing security priorities." See, for example, Robert Gard and Philip Coyle, "America's Massive Missile Defense Mistake," *The National Interest*, June 30, 2014, available at http://nationalinterest.org/feature/americas-massive-missile-defense-mistake-10768.