

# Issue Brief

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## Hypersonic Weapons: Hype, Hope, and Hazard for Taxpayers

### Introduction

The United States is currently facing what might be its most significant military challenge from outside actors since the end of the Cold War. Pentagon brass, congressional leaders, and defense experts across the ideological spectrum seem to agree on two overarching facts: 1) The rapid development of hypersonic weapons – particularly in China and Russia – represents a significant and growing threat to our nation’s security interests; and 2) the U.S. is late to the game on hypersonic weapons, and, as a result, our current capabilities lag significantly behind.

While these realizations are timely and the broad commitment among leaders to remedy this situation is a positive development, taxpayers have reason to be concerned. Indeed, if history has taught us anything, it is that consensus on the development of weapons systems doesn’t always yield the best strategic or fiscally responsible results. On the contrary, widespread agreement on the importance of individual military projects often results in blank checks from Congress and poor oversight

### Key Facts:



**Hypersonic weapons development is the next frontier in defense innovation, and must be done in a taxpayer-friendly way.**



**The Defense Department must learn from past boondoggles and move forward with fiscal responsibility in mind.**



**Defensive hypersonic development should take priority over offensive capabilities.**

at the Department of Defense (DoD).

If catching up and keeping pace on hypersonic weapons is as essential as so many leaders suggest, those leaders – whether they’re in the military, civilian government, or even the private sector – must commit to learning from past mistakes and avoiding the pitfalls that too often hamper efforts to develop and deploy new and emerging weapons technologies. That is what is owed to America’s servicemen and women who will rely on these systems, as well as the taxpayers who foot the bill.

## **Issues and Challenges with Weapons Development and Acquisition**

Many outside observers are understandably hesitant to wade into complex technological or strategic debates or second-guess military leaders on defense matters. However, no one should overlook past instances where flawed thinking and bureaucratic inefficiency have resulted in failed Pentagon programs, defense cost overruns, or both. Furthermore, it doesn’t take a subject matter expert to recognize that these failures are usually foreseeable.

Instances of faulty procurement and development of new defense technology tend to share a few common elements: poor contractor oversight, lack of legitimate competition, unrealistic or poorly expressed requirements and expectations, inflexibility and poor integration across applications, and an unwillingness to correct course when programs start to fail or as threats evolve and change.

A poster child for this type of failure is the F-35 Joint Strike Fighter (JSF), the largest acquisition project in U.S. history. By now, its problems – years of delays, outrageous costs, quality control problems, and security issues – are the stuff of legend. JSF was sold as a one-size-fits-all warplane that would meet every demand, not only for three U.S. service branches, but for allies around the world. On paper, one can see how policymakers came to view the JSF as a “silver bullet” answer to a number of questions, such as how the U.S. maintains its strategic advantage and air superiority, while having an inventory of planes that we can maintain without having to track thousands of replacement parts, not to mention a workforce that needs to be familiar with dozens of engines, avionic systems, and other variations.

In the wake of JSF’s failures, some have argued that the very notion of the one-size-fits-all plane was fundamentally flawed at the outset.<sup>1</sup> In fact, prior to the JSF, several other joint fighter programs met with similar results,<sup>2</sup> which suggests that the issues plaguing the JSF should have been anticipated. Contractors on the JSF made numerous errors in design and preparation along the way, but one part of the overall plan panned out: they were able to spread subcontracts across 45 states and more than a thousand different companies within the U.S., ensuring broad political support – and the commensurate willingness to avoid aggressive oversight – from lawmakers.<sup>3</sup>

The JSF debacle is hardly an isolated case. Though clearly less drastic, another stark example was the Medium Extended Air Defense System (MEADS), which was chronically overbudget and behind schedule. Yet policymakers for years refused to scrap it or change course.<sup>4</sup> Defense systems designed to protect against airborne threats have historically been problematic for taxpayers.<sup>5</sup> At the same time, vessels whose missions could include missile or air defense, such as DDG 1000 and the Littoral Combat Ship, have left the Navy with systems that are too quickly outpaced by international rivals and

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<sup>1</sup> Tegler, Eric. “WTF-35: How the Joint Strike Fighter Got to Be Such A Mess.” *Popular Mechanics*, July 27, 2018.

<sup>2</sup> Lorell, Mark A., et al. “Do Joint Fighter Programs Save Money?”, RAND Corporation, 2013. (Prepared for the United States Air Force.)

<sup>3</sup> Miller, Kathleen, Capaccio, Tony, and Ivory, Danielle. “Flawed F-35 Too Big to Kill as Lockheed Hooks 45 States.” *Bloomberg*, February 22, 2013.

<sup>4</sup> Kennedy, Sean. “Transparency Leads to Defunding of MEADS.” Citizens Against Government Waste, July 12, 2012.

<sup>5</sup> Sepp, Pete. “Solutions to Skyrocketing Missile-Defense Costs May Be Ahead.” National Taxpayers Union, August 2, 2018.

adversaries even as they faced budget problems and drawn out schedules.

In recent years, NTU and similar groups have called on lawmakers to take affirmative steps to prevent these types of problems from occurring in the future. For example, in 2018, as Congress was working on DoD appropriations for FY 2019, NTU, along with a coalition of taxpayer advocacy organizations, sent a letter to Congress outlining three key principles to prevent these types of fiscal and strategic failures<sup>6</sup> :

1. Support Adaptable Programs – “Taxpayers deserve the best possible value from Defense Department IT contracts, which should stress to the greatest degree possible open competition, architecture flexibility and reprogramming ability, and capacity for future innovation.”
2. Pursue Clear Strategy on the Front End – “Too often, programs fall behind schedule and experience cost overruns based on ambiguous, vaguely stated and changing requirements during the development phase.”
3. Prioritize Long-Term Costs and Savings – “All new acquisitions [should] account both for immediate and sustainment costs as well as emerging costs as systems age out and need to be replaced.”

Broad application of these principles would mitigate many of the problems that have long plagued the defense acquisition process. While it may be easier said than done to incorporate these ideas into systems and programs entering the latter development stages, DoD is just getting started on hypersonic weapons, so it's not too late for policymakers to start adhering to these principles. They should also bear in mind a fourth principle unarticulated above, which is of vital importance in this particular area of national security: prioritize extensibility and system robustness when threats are fast evolving. Building in robustness features such as modularity, enhanced connectivity and flexible payloads ensure systems are not obsolete the moment they are fielded.

## **Hypersonic Weapons: The Basics**

Put simply, the term “hypersonic weapon” refers to missiles capable of traveling at speeds exceeding Mach 5, or five times the speed of sound.<sup>7</sup> Regardless of where they originate, weapons traveling at that speed could potentially destroy targets anywhere in the world in scarcely more than one hour. The extreme speed and range, coupled with altitude shifts, and maneuverability, put “hypersonics”<sup>8</sup> in an entirely new weapons class, both in terms of offensive capability and the need for dedicated defensive systems.

Given this potential, the strategic importance of developing hypersonic weapons, as well as a viable defense system, is obvious. Last year, General John Hyten, Commander of the U.S. Strategic Command, when asked about the United States’ defensive capabilities in relation to hypersonics, stated that “[w]

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<sup>6</sup> Coalition to Reduce Spending, et. al. Letter to Congress regarding FY19 Department of Defense appropriations, July 25, 2018.

<sup>7</sup> For further information, see Congressional Research Service (2019). “Hypersonic Weapons: Background and Issues for Congress.” Retrieved from: <https://fas.org/sgp/crs/weapons/R45811.pdf>.

<sup>8</sup> From this point forward in the interests of brevity the more popularized (but less technical) term “hypersonics” will be used as shorthand for “hypersonic weapons.”

e do not have any defense that could deny the employment of such a weapon against us.”<sup>9</sup> In other words, under the status quo, a hypersonic missile attack against the U.S. or its allies would be essentially unstoppable. Even worse, the United States is currently lagging far behind some of its key geopolitical adversaries. This past December, Undersecretary of Defense for Research and Engineering Michael Griffin stated that “[i]n the past year, China has tested more hypersonics than we have in a decade.”<sup>10</sup> Russia is heavily invested in a similar effort.

To try and catch up, DoD has begun development on a handful of separate hypersonic weapons programs spread across all the service branches, as well as the Defense Advanced Research Projects Agency (DARPA). Currently, the most high-profile projects, at least among those that are publicly known, are the Air Force’s Hypersonic Conventional Strike Weapon (HCSW) and the Air-Launched Rapid Response Weapon (ARRW), both of which are “boost glide” weapons designed to be carried and deployed by aircraft.<sup>11</sup> Systems that would deploy sea- and land-based hypersonic missiles are also in development, though they are not as far along.<sup>12</sup>

## **Where We Are Now: FY 2020**

The Pentagon has announced a three-stage plan to expand U.S. capabilities in relation to hypersonic weapons. The plan prioritizes an “aggressive offensive portfolio” out of the gate. This, according to senior officials, will be followed by a “robust defensive strategy,” but during the first phase, investments in defensive systems will be limited to research and assessment. In the final stage, DoD will focus on developing reusable hypersonic weapons systems, a goal that is at least a decade away, according to the Pentagon.<sup>13</sup>

These priorities are reflected in the steps DoD has taken thus far on hypersonics. In fall 2018, the Air Force awarded contracts to Lockheed Martin for the development of the HCSW and ARRW missile systems. The contracts for those projects – the most significant U.S. investments in hypersonic weapons to date – amount to just over \$1.4 billion.<sup>14</sup>

The President’s FY 2020 budget proposal included roughly \$2.6 billion for hypersonic-related projects. Of that amount, \$157.4 million was allocated for defensive systems at the Missile Defense Agency; all other proposed funds were for the development of offensive missile capabilities across multiple service branches.<sup>15</sup>

The House and Senate are currently in the middle of their yearly DoD authorization and appropriations processes. While those processes have yielded some headlines – most of them related to differences over the top-line number for overall DoD spending – Congress’s work on hypersonic projects largely reflects the President’s budget proposal, with some notable differences that will be discussed below in more detail.

## **Have Congress and DoD Learned from Past Mistakes?**

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<sup>9</sup> United States Cong. Senate. Committee on Armed Services. “Hearing to Receive Testimony on United States Strategic Command in Review of the Defense Authorization Request for Fiscal Year 2019 and the Future Years Defense Program,” March 20, 2018. 115th Cong. 1st Session. (Testimony of General John E. Hyten, USAF, Commander, United States Strategic Command.)

<sup>10</sup> Vergun, David. “DOD Scaling Up Effort to Develop Hypersonics.” DoD News, Defense Media Activity, December 13, 2018.

<sup>11</sup> Mizokami, Kyle. “The First U.S. Hypersonic Weapons: Arrow and Hacksaw.” *Popular Mechanics*, August 21, 2018.

<sup>12</sup> Freedberg Jr., Sydney J. “Hypersonics Won’t Repeat Mistakes of F-35.” *Breaking Defense*, March 13, 2019.

<sup>13</sup> Mehta, Aaron. “Is the Pentagon Moving Quickly Enough on Hypersonic Defense?” *Defense News*, March 21, 2019.

<sup>14</sup> Gerdes, Bill. “Plugging the Hypersonic Missile Gap - The First \$1.4 Billion.” *Business Alabama*, October 15, 2018.

When considering the steps taken thus far, the key question – at least from a fiscal or taxpayer advocacy perspective – is whether policymakers have learned from past DoD program failures and are avoiding the same mistakes. To date, the answers to those questions can best be described as something of a mixed bag.

There are certainly some promising developments. For example, with both HCSW and ARRW, the Air Force has opted to use its Middle Tier Acquisition (MTA) authority, a relatively new process of expedited acquisitions that allow the services to bypass the burdensome and often wasteful Defense Acquisition System (DAS) and Joint Capabilities Integration and Development System (JCIDS). The MTA approach – also referred to as Section 804, after the section of the National Defense Authorization Act (NDAA) that created the authority – was specifically established to allow for rapid prototyping and fielding of innovative technologies to meet emerging military needs, with a goal of delivering on new capabilities within two to five years.<sup>16</sup> By utilizing MTA for these projects DoD has given itself more of an opportunity to save costs and avoid significant bureaucratic waste, though that is not guaranteed.

Notably, the authority for MTA will sunset at the end of September 2019 if Congress doesn't act to reauthorize it. In addition, the Government Accountability Office (GAO) recently evaluated DoD's progress in using MTA and noted some shortcomings, mostly related to oversight and consistency. Specifically, the GAO determined that "DOD is not well positioned to ensure that these programs—some of which are multibillion-dollar acquisitions—are likely to meet expectations for delivering prototypes or capability to the warfighter quickly."<sup>17</sup> Fortunately, the DoD has apparently concurred with this evaluation and has outlined steps to address the GAO's recommendations.

For their part, Members of Congress have expressed similar concerns about DoD's utilization of Section 804 on the Air Force's two major hypersonic projects. While the House Appropriations Committee's FY 2020 Defense Appropriations bill fully funds both the HCSW and ARRW, the Committee also expressed concern in its report about DoD's handling of the projects thus far. For example, though DoD's stated goal is to have the HCSW operational by 2022, their budget plan does not include any additional funding for the project beyond 2020, leaving an unexplained shortfall. In the Committee's view, given the amount of time DoD has had to integrate the project into its planning, this gap "communicates uncertainty about [DoD's] intention to see both efforts through to completion."<sup>18</sup>

In terms of protecting taxpayers, where accountability and transparency are paramount, this may spell trouble for the future of hypersonic weapons in the United States. Fortunately, Congress seems willing to keep applying pressure to address these concerns. Noting the problems with the Pentagon's requests on HCSW and ARRW, the House Appropriations Committee's report directs the Secretary of the Air Force to submit a report "about its efforts to transition each effort, assuming that prototyping is successful, to production and fielding" within 90 days. If the direction ends up in the final bill passed by both chambers, this report will include:

- An updated baseline for the ARRW and HCSW rapid prototyping programs and a plan to address budget shortfalls
- Cost estimates to field an early operating capability for both systems
- A notional production schedule for the first several lots

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<sup>16</sup> P.L. 114-328 § 804 (2016).

<sup>17</sup> Government Accountability Office. (2019). "DOD Acquisition Reform: Leadership Attention Needed to Effectively Implement Changes to Acquisition Oversight" (GAO-19-439).

<sup>18</sup> United States Cong. House Committee on Appropriations. (2019). "Report: Department of Defense Appropriations Bill, 2020." (116-84)

- An assessment of current manufacturing readiness levels for both projects<sup>19</sup>

House appropriators' concerns go beyond the two Air Force initiatives. Speaking about hypersonic weapons more generally, the committee report states that, while members support expanded efforts on hypersonic weapons technology, they are "concerned that the rapid growth in hypersonic research has the potential to result in stove-piped, proprietary systems that duplicate capabilities and increase costs."<sup>20</sup> To address this concern, the report directs Undersecretary Griffin to produce an "integrated science and technology roadmap" for hypersonics, with a goal of coordinating efforts across services and providing quarterly reports to Congress on DoD's goals on these projects.<sup>21</sup>

Obviously, the interest of congressional appropriators alone isn't enough to keep hypersonic programs from going off the rails. However, members of the Appropriations Committee clearly see these as serious issues, both in terms of military strategy and costs to taxpayers. Given Congress's predilection for blank checks and blanket parochialism in the past, this level of scrutiny and attention to maintaining efficiency and minimizing costs is encouraging.

That said, the same committee report also included funds to procure twelve additional F-35s beyond the amount requested by DoD, with a price tag of over a billion dollars. It therefore remains to be seen if a critical mass in Congress has started viewing these matters differently.

## **Offense Sells Tickets, Defense Wins Championships**

Aside from concerns about process and accountability, there are legitimate questions about DoD's current strategy and priorities on hypersonics. When DoD experts and officials speak about the widening gap between the U.S. and China or Russia, their gravest hypotheticals are generally about the inability to detect and defend against a hypersonic missile attack. Earlier this year, the DoD released its Missile Defense Review, which placed a high priority on projects related to hypersonic defense.<sup>22</sup> However, there seems to be a disconnect between the statements of key DoD officials and the administration's budget priorities, which have an almost myopic focus on offensive systems, leaving mostly scraps for hypersonic defense.

As stated above, the \$157.4 million included the President's FY 2020 budget for hypersonic defensive systems amounts to about one-sixteenth of the total amount requested for hypersonics overall. Both the House and Senate NDAA bills provide the same level of funding,<sup>23</sup> which is in line with the administration's stated preference to hold off on serious defensive investments until after the offensive systems are off the ground. But if that is indeed the plan, it isn't reflected anywhere in the President's budget proposal, which projects even less yearly spending on hypersonic defensive capabilities over the next five years. In fact, MDA's budget justification doesn't even include plans for a single systems element test between now and the end of FY 2024. Notably, in its annual Unfunded Priorities list – a yearly compilation of key MDA programs not fully included in the budget proposal – the MDA listed over \$800 million in additional hypersonic defense projects,<sup>24</sup> which further suggests a disconnect on these issues.

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<sup>19</sup> *ibid.*

<sup>20</sup> *ibid.*

<sup>21</sup> *ibid.*

<sup>22</sup> Office of the Secretary of Defense. (2019.) "2019 Missile Defense Review."

<sup>23</sup> United States Cong. Senate Committee on Armed Services. "Report on National Defense Authorization Act for Fiscal Year 2020." (116-48); and United States Cong. House Committee on Armed Services. "Report on H.R. 2500, National Defense Authorization Act for Fiscal Year 2020." (116-120)

<sup>24</sup> Saylor, Kelley M. "Hypersonic Weapons: Background and Issues for Congress." Congressional Research Service, July 11, 2019. Retrieved from: <https://www.everycrsreport.com/reports/R45811.html#ifn90>

Put simply, the ability to defend or deploy an effective counterattack against new weapons technologies depends largely on detection. A historical example: a few years after the U.S. first deployed the SR-71 Blackbird reconnaissance aircraft in the 1960s, the Soviet Union had ground-to-air missile systems and even its own aircraft theoretically capable of intercepting it. What the Soviets lacked was a detection system that would allow for timely deployment of any effective countermeasures, and, as a result, the U.S. was able to maintain the distinct advantages provided by the SR-71 for decades. The U.S. is currently in danger of falling into a similar trap with hypersonic weapons systems.

The development of any missile defense system – which consist of separate mechanisms to track inbound missiles and intercept them – is a daunting and expensive proposition. Hypersonic weapons present unique challenges for defensive systems, challenges that will be nearly impossible to overcome if the systems still rely on ground-based tracking.

Loren Thompson noted that “[i]f North Korea launches a ballistic missile towards America, defenders can make an educated early guess on what the intended target is; that is not the case with gliding hypersonic weapons. They need to be tracked continuously, which means there must be a constellation of space-based sensors in various orbits to accomplish that part of the defensive mission.”<sup>25</sup>

To make up for these deficits, key administration officials and countless defense experts have made clear that creation of a space sensor layer (SSL) – a network of satellites used for tracking long-range missiles from launch through impact – will be a vital component of future missile defense efforts generally and hypersonic defenses in particular.<sup>26</sup> The Missile Defense Review heavily underscored the importance of the SSL, along with other space-based missile defense systems.<sup>27</sup> In addition, Undersecretary Griffin, who publicly rolled out the DoD’s three-step approach on hypersonic weapons, said that such technology was “absolutely” necessary.<sup>28</sup> Congress appropriated \$73 million for SSL development in FY 2019, which demonstrated a noticeable shift in priorities. But, for FY 2020, the Trump Administration’s budget proposal included just \$15 million in direct spending for SSL development, all under the authority of the new Space Development Agency (SDA) and none at the MDA, which is where all the major work on the SSL has been performed up to now. According to Thomas Karako, a missile defense expert from Center for Strategic and International Studies, the “logic in transferring SSL from MDA to SDA is rather unclear” and the paltry \$15 million set aside for developing the SSL is “just enough to buy paper satellites, not to test prototypes or move toward fielding.”<sup>29</sup> Fortunately, both the House and Senate, though they’ve been at odds over broader DoD spending levels, included \$108 million for SSL development – keeping responsibility at the MDA – in their FY 2020 NDAA bills.<sup>30</sup> Not coincidentally, that is the precise amount the MDA listed for SSL on its Unfunded Priorities list.

The Pentagon seems to be employing a cost imposition strategy on hypersonics, which would go something like this: produce far more offensive hypersonic weapons than our rival, which will either deter them from using theirs or force them to focus more on defensive systems. Speaking on a recent

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<sup>25</sup> Thompson, Loren. “Hypersonic Weapons are Coming. The Pentagon Needs to Spend More on Defending Against Them.” *Forbes*, April 5, 2019.

<sup>26</sup> Dolan, John L., Gallagher, Richard K., and Mann, David L. “Hypersonic Weapons - A Threat to National Security.” *RealClearDefense*, April 23, 2019.

<sup>27</sup> Office of the Secretary of Defense. (2019.) “2019 Missile Defense Review.”

<sup>28</sup> Freedberg Jr., Sydney J. “Space-Based Missile Defense Can Be Done: DoD R&D Chief Griffin.” *Breaking Defense*, August 8, 2018.

<sup>29</sup> Karako, Thomas, and Rumbaugh, Wes. “Masterpiece Theater: Missed Opportunities for Missile Defense in the 2020 Budget.” *Center for Strategic and International Studies*, March 29, 2019.

<sup>30</sup> United States Cong. Senate Committee on Armed Services. “Report on National Defense Authorization Act for Fiscal Year 2020.” (116-48); and United States Cong. House Committee on Armed Services. “Report on H.R. 2500, National Defense Authorization Act for Fiscal Year 2020.” (116-120)

panel, Roger Zakheim of the Ronald Reagan Presidential Foundation boiled this strategy down to the essentials, arguing that “the best defense is a good offense here.” He and his co-panelists also suggested that China was likely engaging in a similar policy with the United States.<sup>31</sup>

The wisdom of this strategy is debatable and likely misreads history. While President Reagan is often credited for the use of a cost imposition strategy on nuclear weapons in order to bring the Soviets to the negotiating table, a very significant part of that strategy was the development of the Strategic Defense Initiative – a space-based missile defense system. If anything, the lesson from this widely recognized successful cost-imposition strategy is that ambitious defensive systems can display as much strength – if not more – as any new offensive capabilities. Though some have called the Trump Administration’s new focus on space defense a return to the “Star Wars” era of missile defense,<sup>32</sup> that certainly doesn’t seem to extend to the development of the SSL or hypersonic weapons defense more generally.

Another fundamental challenge to any cost-imposition strategy for hypersonics is the fact that, unlike the former Soviet Union, our current competitors have far greater economic means to withstand and potentially outmatch a strategy centered on cost-imposition strategy. All of this suggests that a comprehensive approach to developing weapons systems is more sensible, both in terms of strategy and cost effectiveness.

Major General Howard Thompson, former chief of staff for NORAD/NORTHCOM, has argued that U.S. hypersonic defense systems should be a “highly robust ‘family of systems’ that nonetheless must be envisioned, designed, developed and deployed in a completely holistic manner.” Ultimately, what is required, according General Thompson, is “an extensive defensive architecture that provides diversified, redundant, globally persistent space layers to detect an initial [hypersonic vehicle] launch, track it from launch to hypersonic flight and then through its profile, until cueing-capable “destroy” systems can defeat it.”<sup>33</sup>

In other words, order to be effective, detection and monitoring systems utilizing the SSL must be developed with the specific needs of our hypersonic defense systems in mind. This includes the development of kinetic interceptors, the missiles that will eventually be used to target and take down deployed hypersonic weapons. It should also include non-kinetic systems that could be used to disable enemy hypersonic systems both prior to and after launch. These include cyber-intrusion attacks and other electronic warfare capabilities. As retired Lt. General Bob Elder, Chair of the National Defense Industrial Association’s Cyber Augmented Ops Division, stated, “[D]efense against hypersonic weapons should be the challenge that finally forces DoD to resolve the issues that hinder full and complete integration of kinetic and non-kinetic capabilities...the safety and security of our forward-deployed troops, worldwide assets, and in fact, our entire nation will depend on it.”<sup>34</sup>

Focusing exclusively on offensive weapons may be cheaper in the short-term, but in the long run, it will only make advancements in defensive systems more difficult, costly, and likely less effective. In addition, a singular focus on hypersonic weapons without due attention to defense will all but guarantee a prolonged and expensive arms race. Thus far, the Administration’s budget has yet to fully address this essential priority.

## Conclusion

<sup>31</sup> Clark, Colin. “Tackling Hypersonic Threats: Offense or Missile Defense?” *Breaking Defense*, March 11, 2019.

<sup>32</sup> Popkin, Gabriel. “Decades after Reagan’s ‘Star Wars,’ Trump calls for missile defenses that would blast warheads from the sky.” *Science*, January 22, 2019.

<sup>33</sup> Thompson, Howard. “Our missile defense systems are no match for hypersonic weapons.” *The Hill*, January 1, 2019.

<sup>34</sup> Elder, Bob. “Will Hypersonics Finally Force the Pentagon to Integrate Kinetic and Non-Kinetic Defenses?” *Defense One*, March 25, 2019.



For the most part, hypersonic weapons and defense systems are brand new territories for DoD. As such, they provide new opportunities to address the problems that have long plagued the defense acquisition system and reduce costs for taxpayers. As this effort moves forward in 2020 and beyond, Congress should keep pressure on DoD and others in the administration to ensure they follow a sensible, balanced course on hypersonics that is fiscally responsible in the long run as well as the short run. This means rigorous oversight and constant examination. And, given the importance of this technology, Members of Congress should give less attention to parochial interests and show more interest in implementing sound strategies.

Leaders at DoD – both military and civilian – should make their objectives clear and hold contractors accountable throughout the process. In addition, they should use any available authorities that would allow for the continued development of hypersonic weapons and defenses without unnecessary red tape and bureaucratic costs. And, they should continually work with Congress to unwind the acquisitions process and make any additional changes that may prove necessary.

There is a justified sense of urgency among leaders in Congress and the Administration regarding hypersonic weapons. The risks of falling far behind potential adversaries should not be ignored. That is all the more reason to make certain that any taxpayer funds committed to this endeavor are spent efficiently, and ensure the strategies developed to prioritize the use of those funds are sound.

#### **About the Author**

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