



March 31, 2020

The Honorable James Inhofe  
Chairman, Senate Committee on Armed Services  
205 Russell Senate Office Building  
Washington D.C. 20510

The Honorable Deb Fischer  
Chairwoman, Subcommittee on Strategic Forces  
454 Russell Senate Office Building  
Washington D.C. 20510

The Honorable Jeanne Shaheen  
Ranking Member, Senate Committee on Armed  
Services  
506 Hart Senate Office Building  
Washington D.C. 20510

The Honorable Martin Heinrich  
Ranking Member, Subcommittee on Strategic  
Forces  
303 Hart Senate Office Building  
Washington D.C. 20510

Dear Chairman Inhofe, Chairwoman Fischer, Ranking Member Shaheen, and Ranking Member Heinrich:

On behalf of National Taxpayers Union (NTU), the nation's oldest taxpayer advocacy organization, we write urging you to properly balance and prioritize within existing budgets America's investment in hypersonic defense for fiscal year (FY) 2021 and beyond. Guarding against these weapons, which move five or more times faster than the speed of sound, will be a critical piece of our nation's efforts to combat the military capabilities of key competitors like China and Russia for the foreseeable future.<sup>1</sup> While NTU strongly believes in fiscal prudence and responsibility in all parts of the federal budget, including Pentagon spending,<sup>2</sup> a thoughtful approach now for counter-hypersonic efforts can not only best serve national security needs, it can best serve taxpayers over the long run.

In its FY 2020 budget request, the Pentagon only devoted six percent of the total toward hypersonic-related research on hypersonic *defense* programs (\$157.4 million out of \$2.6 billion requested), with the rest devoted to developing *offensive* hypersonic weapons.<sup>3</sup> It is not altogether unreasonable that America's national security leaders want to invest in the latter capabilities, given China and Russia appear to be far ahead of the U.S. in their hypersonic weapons development.<sup>4</sup>

In an Issue Brief published last July we warned policymakers that there was a "disconnect" between the stated priorities of the Department of Defense and the Administration's FY 2020 Budget:

"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

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<sup>1</sup> Saylor, Kelley M. "Hypersonic Weapons: Background and Issues for Congress." Congressional Research Service, Updated March 4, 2020. Retrieved from: <https://crsreports.congress.gov/product/pdf/R/R45811>

<sup>2</sup> Swift, Nan. "Open Letter to Congress: Pentagon Doesn't Need a Budget Boost." National Taxpayers Union, March 8, 2019. Retrieved from: <https://www.ntu.org/publications/detail/open-letter-to-congress-pentagon-doesnt-need-a-budget-boost>

<sup>3</sup> Saylor, Kelley M. "Hypersonic Weapons: Background and Issues for Congress." Congressional Research Service, Updated March 4, 2020. Retrieved from: <https://crsreports.congress.gov/product/pdf/R/R45811>

<sup>4</sup> Senate Armed Services Subcommittee on Emerging Threats and Capabilities. (April 18, 2018). "Hearing to Receive Testimony on Accelerating New Technologies to Meet Emerging Threats." Retrieved from: [https://www.armed-services.senate.gov/imo/media/doc/18-40\\_04-18-18.pdf](https://www.armed-services.senate.gov/imo/media/doc/18-40_04-18-18.pdf) (Accessed March 16, 2020.)

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, 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."<sup>5</sup>

Unfortunately, the Administration's FY 2021 Budget appears to follow the same trajectory, one that might end up costing taxpayers more over time. For example, in December 2019, the White House National Science & Technology Council stressed the need for hypersonic defense, writing that "Space-based sensors" should be a research and development priority:

"Space-basing for sensors provides significant advantages. Such sensors take advantage of the large area viewable from space for improved tracking and potential targeting of advanced threats, including [Hypersonic Glide Vehicles] HGVs and hypersonic cruise missiles. Space-based sensors can monitor, detect, and track missile launches from locations almost anywhere on the globe, and can provide extremely advantageous "birth-to-death" tracking. Ongoing and planned R&D that supports this priority includes developing ways to collect and process information from existing space-based and terrestrial sensors to track current and emerging HGV threats."<sup>6</sup>

To that end, the Missile Defense Agency (MDA) awarded \$20 million contracts to four entities in October of 2019 under the Hypersonic and Ballistic Tracking Space Sensor (HBTSS) program, to "design space sensors that can track hypersonic and ballistic missiles" that would otherwise be "undetectable by current systems after the initial boost phase of their flight."<sup>7</sup> This is admirable progress.

Despite the prioritization of a key White House office, though, and the recent MDA contracts, the Pentagon has requested \$206.8 million for hypersonic defense programs in FY 2021, representing just eight percent of the administration's budget request for all hypersonic-related research (\$3.2 billion).<sup>8</sup> It therefore appears the disconnects we warned policymakers about in July 2019 persist in early 2020.

There is also no money for HBTSS in the FY 2021 MDA budget - instead, "a small amount" is allocated to the Space Development Agency (SDA), a shift that has worried experts like Rebecca Heinrichs at the Hudson

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<sup>5</sup> Hickman, Bryan. "Hypersonic Weapons: Hype, Hope, and Hazard for Taxpayers." National Taxpayers Union, July 24, 2019. Retrieved from: <https://www.ntu.org/publications/detail/hypersonic-weapons-hype-hope-and-hazard-for-taxpayers>

<sup>6</sup> White House National Science & Technology Council, Homeland & National Security Subcommittee on Nuclear Defense Research and Development. (December 2019). "Nuclear Defense Research and Development Strategic Plan for Fiscal Years 2020-2024." Retrieved from: <https://www.whitehouse.gov/wp-content/uploads/2019/12/Nuclear-defense-research-development-strategic-plan-2019.pdf> (Accessed March 16, 2020.)

<sup>7</sup> Erwin, Sandra. "Missile Defense Agency selects four companies to develop space sensors." *Space News*, October 30, 2019. Retrieved from: <https://spacenews.com/missile-defense-agency-selects-four-companies-to-develop-space-sensors/> (Accessed March 16, 2020.)

<sup>8</sup> Saylor, Kelley M. "Hypersonic Weapons: Background and Issues for Congress." Congressional Research Service, Updated March 4, 2020. Retrieved from: <https://crsreports.congress.gov/product/pdf/R/R45811>

Institute.<sup>9</sup> While NTU has taken issue with MDA's budgeting before,<sup>10</sup> we believe the hypersonics defense effort could suffer further from a midstream shift in agency responsibility, putting both American security and taxpayer dollars at risk in the process.

We also believe policymakers continue to neglect the multi-faceted needs of a comprehensive counter-hypersonics effort, which extend beyond mere detection of hypersonic weapons. As NTU explained in the aforementioned Issue Brief:

“In other words, [in] order to be effective, detection and monitoring systems utilizing the [space sensor layer] 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.”<sup>11</sup>

Simply put, hypersonic defense efforts require, at minimum, a larger slice of the hypersonics research pie. NTU does not make this recommendation lightly, given we have been long-time advocates for responsible reductions in military spending. Yet the two goals are not incompatible. Resources can be shifted from any of a number of appropriations for other, failing systems or redirected from within the missile defense account itself.<sup>12</sup>

We also make this recommendation knowing that taxpayers' investments in a good defense will make for a better offense in the long run, and one that is leaner and more efficient. For example, constructing an SSL using low earth orbit (LEO) detection satellites can be much more fiscally advisable than geosynchronous or multiple-layer orbits (such as that utilized by the cost-challenged Space-Based Infrared System (SBIRS)). This is because (when properly managed), LEO satellites can take better advantage of a robust private-sector architecture that is rapidly driving down launch costs to this level of space.<sup>13</sup>

Furthermore, LEO satellites can utilize less sophisticated (and cheaper) sensors than other types, leaving fiscal latitude for building in data link capabilities that can integrate existing and future defensive weapon systems for a variety of tasks. This is no minor matter, either militarily or fiscally. As an NTU Issue Brief from 2018 on the Army Integrated Air and Missile Defense Program noted, “systems of systems” can be far better force multipliers than simply running up the taxpayer's tab for more quantities of weapons:

“Defeating airborne threats has become a particularly expensive proposition that taxpayers know all too well. The perennially challenged MEADS system, the less-than-effective Ground-Based Midcourse

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<sup>9</sup> Heinrichs, Rebecca L. “The Missile Defense Agency's FY21 Budget: Positive Developments, Concerns, and Questions for Policymakers.” Hudson Institute, March 11, 2020. Retrieved from: <https://www.hudson.org/research/15805-the-missile-defense-agency-s-fy21-budget-positive-developments-concerns-and-questions-for-policymakers> (Accessed March 30, 2020.)

<sup>10</sup> Hickman, Bryan. “Hypersonic Weapons: Hype, Hope, and Hazard for Taxpayers.” National Taxpayers Union, July 24, 2019. Retrieved from: <https://www.ntu.org/publications/detail/hypersonic-weapons-hype-hope-and-hazard-for-taxpayers>

<sup>11</sup> Hickman, Bryan. “Hypersonic Weapons: Hype, Hope, and Hazard for Taxpayers.” National Taxpayers Union, July 24, 2019. Retrieved from: <https://www.ntu.org/publications/detail/hypersonic-weapons-hype-hope-and-hazard-for-taxpayers>

<sup>12</sup> For more, see: Swift, Nan. “Open Letter to Congress: Pentagon Doesn't Need a Budget Boost.” National Taxpayers Union, March 8, 2019. Retrieved from: <https://www.ntu.org/publications/detail/open-letter-to-congress-pentagon-doesnt-need-a-budget-boost>; Swift, Nan. “F-35 Strikes Again.” National Taxpayers Union, July 10, 2018. Retrieved from: <https://www.ntu.org/publications/detail/f-35-strikes-again>; Swift, Nan. “GAO Calls on Congress to Mothball Navy's New Frigate Program.” National Taxpayers Union, April 20, 2017. Retrieved from: <https://www.ntu.org/publications/detail/gao-calls-on-congress-to-dry-dock-navys-new-frigate-program>

<sup>13</sup> For more, see: Lopez, C. Todd. “Hypersonics Remain Top Priority for DOD.” U.S. Department of Defense, August 14, 2019. Retrieved from: <https://www.defense.gov/Explore/News/Article/Article/1934290/hypersonics-remain-top-priority-for-dod/> (Accessed March 27, 2020.)

Defense (GMD) scheme, the technologically immature Standard Missile Block II-B, and the long-over-budget SBIRS missile warning satellite are just four cases NTU has followed over the years. Virtually all of them have in common one aim, whatever their fiscal details: to serve as the so-called ‘Golden BB’ that can finally shoot down aircraft and missiles using high-performance technologies. None have lived up to the hype.

... [AIAMD] just might, with proper management, be able to break this cycle. ...[T]his initiative is not about designing a new ‘Golden BB.’ It’s about giving the BBs we’re already fielding a better chance at being “golden” by giving everyone in the battle space a clear sight picture, integrating their aim, getting the shooters to talk to each other, and using shots more wisely.”<sup>14</sup>

It is NTU’s hope that you and your colleagues will give serious forethought now to the implications for taxpayers ahead by planning hypersonic defense and offense with the highest level of oversight, fiscal discipline, and respect for historical cost drivers in other programs. We also hope that you exercise thorough and proper Congressional oversight of the military’s progress in meeting counter-hypersonic goals, given worrying developments like the Administration’s underinvestment in hypersonic defense and the shift in resources from MDA to SDA. Clear program requirements now could save both time and taxpayer dollars down the road. Given the massive \$2.2 trillion COVID-19 response that has just been enacted, every dollar saved counts now toward our economic (and therefore national) security more than ever before.

We appreciate your attention to this matter, and should have any questions we are at your service.

Sincerely,

Pete Sepp  
President

Andrew Lautz  
Policy and Government Affairs Manager

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<sup>14</sup> Sepp, Pete. “Solutions to Skyrocketing Missile-Defense Costs May be Ahead.” National Taxpayers Union, August 2, 2018. Retrieved from: <https://www.ntu.org/publications/detail/solutions-to-skyrocketing-missile-defense-costs-may-be-ahead>