

Congress of the United States

Washington, DC 20515

July 8, 2025

The Honorable Pete Hegseth
Secretary
U.S. Department of Defense
1400 Defense Pentagon
Washington, DC 20301-1400

Dear Secretary Hegseth:

The Trump administration has announced plans to build a “Golden Dome” to counter missile attacks against the United States from “any foe,” presumably including Russia and China, that would mandate the deployment of missile interceptors in space. Such a development would mark a dramatic departure from more limited U.S. missile defense goals, which historically have enjoyed bipartisan support. The Trump administration’s plans for Golden Dome could make it prohibitively expensive, operationally ineffective, massively corrupt, and detrimental to U.S. and global security by igniting a nuclear arms race with Russia and China. We are concerned that Golden Dome will be much more effective at wasting taxpayer dollars than countering missile attacks. We urge you to rein in this dangerous plan.

On May 20, 2025, President Trump said that with Golden Dome, “we will truly be completing the job that President Reagan started 40 years ago, forever ending the missile threat to the American homeland.”¹ Indeed, Golden Dome resembles Reagan’s 1983 proposal—called the Strategic Defense Initiative and derided as “Star Wars”—to build a system of space- and ground-based interceptors to make nuclear weapons “impotent and obsolete.”² But after spending about \$400 billion, the technology is still not up to this challenge.³ Golden Dome could easily waste hundreds of billions of dollars and become a taxpayer’s nightmare.

President Trump has said that Golden Dome would cost \$175 billion and be “fully operational” by 2029.⁴ But the Congressional Budget Office (CBO) has estimated that it could cost as much as \$542 billion to deploy a constellation of space-based interceptors (SBIs) designed to defeat only one or two intercontinental ballistic missiles launched in a limited attack, such as from North Korea.⁵ Countering a possible Russian or Chinese attack involving hundreds of warheads would require a much larger, more technologically advanced, and more costly system. That is why Congress, since 1999 on a bipartisan basis, has specifically said that U.S. national missile defenses should aim to counter only “limited” threats, not Russian and Chinese arsenals.⁶ Golden Dome would overturn that long-standing consensus with the stroke of a pen.

Despite what could amount to a trillion-dollar investment, Golden Dome would be all-too-easy to defeat. Interceptors based in orbit would be vulnerable (as all satellites are) to anti-satellite weapons launched from the

¹ Chris Sanders & Mike Stone, *What Is the Golden Dome Missile Defense Shield?*, Reuters (May 21, 2025), <https://www.reuters.com/business/aerospace-defense/what-is-golden-dome-missile-defense-shield-2025-05-21/>.

² President Reagan’s SDI Speech (Mar. 23, 1983), <https://www.atomicarchive.com/resources/documents/missile-defense/sdi-speech.html>.

³ *Strategic Ballistic Missile Defense*, American Physical Society (2025), p. 3, https://res.cloudinary.com/apsphysics/image/upload/v1741185158/APS_BMD_Report_2025_qzgzaz.pdf

⁴ Tara Copp, *Trump selects concept for \$175 billion ‘Golden Dome’ missile defense system*, AP (May 21, 2025), <https://apnews.com/article/golden-dome-missile-defense-trump-space-e74d637feac06edcfde79214d8acf179>.

⁵ Letter from Phillip Swagel, Director, Congressional Budget Office, to Senators Deb Fischer and Angus S. King, Jr. (May 5, 2025), <https://www.cbo.gov/system/files/2025-05/61237-SBI.pdf>.

⁶ National Missile Defense Act of 1999, <https://www.congress.gov/bill/106th-congress/senate-bill/257/text>

ground. Russia is reportedly developing a nuclear weapon that could be deployed in orbit and detonated in space to destroy satellites.⁷ Moscow and Beijing have already started to develop new systems to get around U.S. defenses, including Russia's nuclear powered cruise missile and China's fractional orbital bombardment system. They could also build hundreds of additional missiles to overwhelm Golden Dome. Far from making us safer, Golden Dome would likely motivate Russia and China to build new nuclear weapons to aim at us, dooming any prospect of reviving the arms control process and setting off a terrifying three-way arms race.

Beyond being expensive and ineffective, there are early signs that the program may become riddled with corruption. Reports that SpaceX is a frontrunner to win a crucial part of the contract, raises serious concerns about potential conflicts of interest.⁸ In addition, DoD recently announced plans to significantly scale back the Office of the Director of Operational Test and Evaluation, which in the past conducted essential testing of missile defense systems to ensure their military effectiveness.⁹ As a result, the Administration could rush ahead to award multi-billion-dollar Golden Dome contracts with little ability to assess whether the money is being well-spent.

Missile defenses against conventionally armed short-range rockets, like those Hamas has fired into Israel, can be effective. But the Trump administration's misguided Golden Dome plan to build space-based interceptors against nuclear-armed long-range missiles could become economically ruinous, technically unachievable, and massively corrupt. Rather than pursue a program that leaves our country with a false sense of security, we should scale back this program and, as President Trump has also proposed, seek to reduce nuclear arsenals directly through arms control diplomacy.

To help us better understand the Trump administration's plans for Golden Dome, please respond to the following questions in writing by July 21, 2025:

1. What is the intended purpose of Golden Dome? How many missiles (and of what types) is it being designed to intercept? What system architecture will be used? Has the threat been validated as a requirement by the Joint Chiefs of Staff?
2. How does the Administration plan to spend the proposed \$175 billion on Golden Dome?
3. What is the 20-year estimated cost of Golden Dome?
4. How does the Administration plan to deal with known and anticipated countermeasures to space- and ground-based missile defense, including nuclear detonations in space?
5. What aspects of the system would be based in space?
6. Will the Administration propose a third missile defense interceptor site on the East Coast?
7. How does the Pentagon plan to meet requirements for developmental and operational testing of the elements of the proposed system, given the very short timeline for deployment? Does the Administration plan to circumvent acquisition best practices to meet a political timeline? How will planned staffing reductions in DoD's Office of Operational Test and Evaluation affect the testing of Golden Dome?
8. How will the Administration award contracts under Golden Dome? Will SpaceX get preferential treatment?

⁷ Aamer Madhani & Zeke Miller, *Russia Has Obtained a "Troubling" Emerging Anti-satellite Weapon, the White House Says*, AP (Feb. 15, 2024), <https://apnews.com/article/russia-anti-satellite-weapon-threat-technology-2880f9c55122dcafe87188bc92dd6cde>.

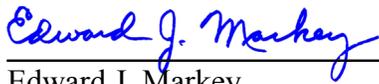
⁸ Mike Stone & Marisa Taylor, *Exclusive: Musk's SpaceX is frontrunner to build Trump's Golden Dome missile shield*, Reuters (April 17, 2025), <https://www.reuters.com/business/aerospace-defense/musks-spacex-is-frontrunner-build-trumps-golden-dome-missile-shield-2025-04-17/>.

⁹ Secretary of Defense, Memorandum on the Reorganization of the Office of the Director of Operational Test and Evaluation (May 27, 2025), <https://media.defense.gov/2025/May/28/2003725153/-1/-1/1/MEMORANDUM-DIRECTING-REORGANIZATION-OF-THE-OFFICE-OF-THE-DIRECTOR-OF-OPERATIONAL-TEST-AND-EVALUATION.PDF>

9. How does the Administration expect China and Russia to react to Golden Dome? How does the administration plan to reconcile its arms control goals with these reactions?

Thank you in advance for your attention to this important matter of U.S. and global security.

Sincerely,



Edward J. Markey
United States Senator



Jeffrey A. Merkley
United States Senator



Christopher S. Murphy
United States Senator



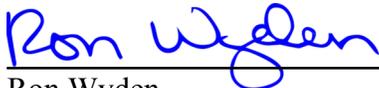
Elizabeth Warren
United States Senator



John Garamendi
Member of Congress



Chris Van Hollen
United States Senator



Ron Wyden
United States Senator



Eleanor Holmes Norton
Member of Congress



Greg Casar
Member of Congress



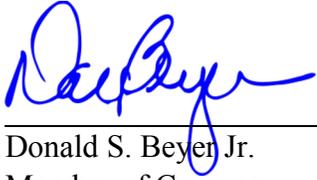
Lloyd Doggett
Member of Congress



Bill Foster
Member of Congress



Bernard Sanders
United States Senator

A handwritten signature in blue ink, appearing to read "Donald S. Beyer Jr.", written in a cursive style. The signature is positioned above a horizontal line.

Donald S. Beyer Jr.
Member of Congress