



“Golden Dome”

How Many?

The “Golden Dome” missile defense system is a still mostly theoretical initiative [announced](#) by President Donald Trump in January 2025. Framed as a visionary plan to shield the entire United States from all missile attacks, Golden Dome has been compared rhetorically to the Reagan-era [Strategic Defense Initiative](#) known as “Star Wars” and invokes a comparison to the “Iron Dome” system that protects Israel. If realized, the system would represent the most expansive (and expensive) homeland missile defense concept in history.

Origins

Trump first previewed the concept during his 2024 campaign and [unveiled](#) an initial plan in May 2025. According to Trump administration officials, the goal is to create an impenetrable shield over the homeland capable of intercepting threats from competitors like Russia, China, North Korea and Iran.

The Department of Defense has since begun exploratory work, and both the Senate and House Armed Services Committees debated preliminary funding requests. Initial [cost estimates](#) exceed half a trillion dollars, though Trump has argued the system will be far cheaper and ready much quicker, and the fiscal year 2026 congressional budget reconciliation plan provides [\\$25 billion](#) for early development.

Concept and How It Would Work

The Golden Dome envisions a layered missile defense architecture covering the continental United States. Theoretically, it would combine multiple interceptor systems, space-based sensors, directed energy weapons, and potentially future technologies not yet operationally viable.

Key components under discussion include:

- Constellations of satellite-based tracking and discrimination platforms to detect missile launches in real time.
- Kinetic interceptors based in space, at sea and on land.
- Directed energy systems, such as high-powered lasers, for boost-phase intercepts.
- Artificial intelligence integration for faster sensor-to-shooter linkages.

As currently articulated, Golden Dome would require major advances in sensor coverage, battle management and interceptor reliability, not to mention substantial new infrastructure investment on a scale that has yet to be seen.

Progress to Date

While no hardware has been deployed and the program remains in its conceptual phase, Congress has already begun allocating funds for research, studies and classified development tracks.

The Department of Defense has characterized Golden Dome as a “[big team effort](#)” requiring coordination across the entire acquisition community. The Missile Defense Agency (MDA) is expected to play a central role in shaping the system’s architecture and recently previewed a [\\$151 billion contract proposal](#) to support initial development efforts.

The U.S. Space Force is also expected to [contribute](#) to sensor integration, space-based architecture planning and orbital communications required for the envisioned system's early-warning and tracking layers, although its precise role remains undefined at this stage.

Despite Trump's assertion that the Golden Dome system would be fully operational before the end of his term, the Pentagon's [implementation plan](#) suggests otherwise. By the end of 2028, only a demonstration under ideal conditions is expected.

At the same time, Secretary of Defense Pete Hegseth has [moved to dismantle or severely limit](#) the Office of the Director of Operational Test and Evaluation (DOT&E), a critical body responsible for independent testing and evaluation of defense systems. Such a move would significantly reduce oversight over the system's technical performance and operational claims.

Strategic Context and Historical Lessons

Golden Dome evokes parallels with past grand-scale defense programs, such as:

- The Strategic Defense Initiative (SDI) of the 1980s, which promised space-based interceptors but failed to deliver a viable system and was ultimately abandoned.
- The [Ground-based Midcourse Defense](#) (GMD) program, which [cost more than \\$67 billion](#) and has struggled with reliability.
- Israel's Iron Dome, which Golden Dome is rhetorically linked to, but which operates on a fundamentally different scale and context (short-range, limited-area defense).

Despite several decades of investment in homeland missile defense, [no system has proven capable](#) of consistently and reliably intercepting advanced ICBM threats under real-world conditions.

Cost and Feasibility

Estimates suggest the full Golden Dome could cost well over \$500 billion, with ongoing operational and sustainment costs pushing that figure [exceedingly higher](#). Critics have raised valid concerns about:

- [Technical feasibility](#): Key components such as boost-phase interception and space-based weapons remain unproven.
- [Strategic competition](#): Competitors may respond to perceived breakthroughs in U.S. defenses by expanding their offensive arsenals, as offensive missiles remain far cheaper to produce than defensive interceptors.
- [Difficulties defining scope](#): Missile defense requirements are constantly evolving alongside technological advancements and shifting adversary capabilities. Attempting to define and build a single system to defend against all present and future threats is likely to prove impossible in practice.
- [Opportunity costs](#): Large-scale investments in unproven technologies may come at the expense of conventional force readiness or diplomacy.