National Dome? Listen to the Americans

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WASHINGTON — To launch the **Golden Dome** program without it exploding in costs, the U.S. Department of Defense needs a breakthrough in **acquisitions** and **artificial intelligence**. The crux, in simple terms, is one: **“it costs too much”**.

Speaking at the **Miami Space Summit**, **Marcia Holmes**, deputy director of the DoD for Golden Dome, stated that the “real” challenge is not just bringing together new technologies, but **integrating space assets and weapon systems into a single architecture** capable of providing a **layered defense**, **on a large scale**, and **with sustainable costs**.

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The problem: integrate everything (and do it without overspending)

According to Holmes, the goal is to effectively connect:

- **missile tracking satellites**,
- potential **space-based interceptors (SBI)**,
- a comprehensive **command and control (C2) network** that connects **sensors and "shooters"**.

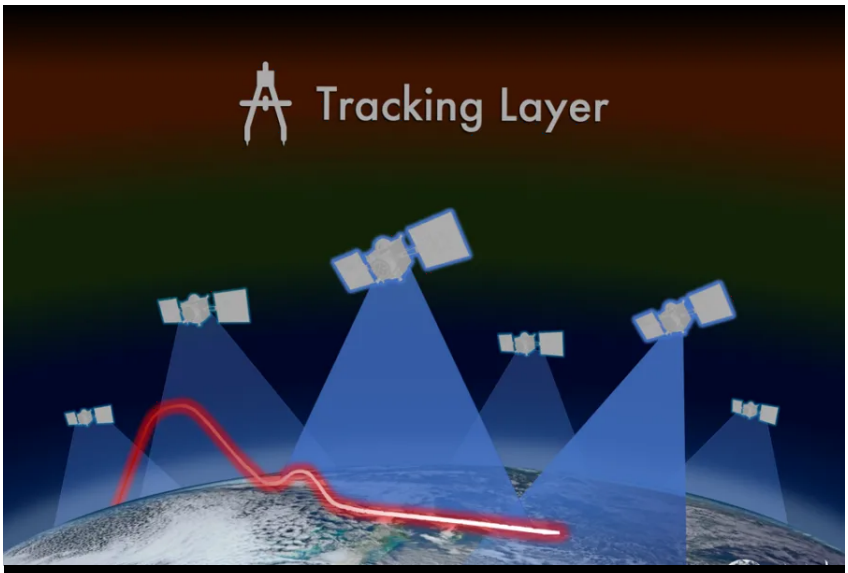
The critical point is to make this architecture **operational quickly** but also **economically manageable**. For this reason, she explained, the Secretary of Defense would have initiated a **"broad and radical" acquisition transformation strategy**, with the idea of speeding up development and deployment while reducing waste and time.

AI and autonomy: less personnel, lower costs, more speed

Holmes pointed to **AI and autonomy** as fundamental accelerators:

- **More autonomy** = **less personnel needed** = **lower sustainment costs**.
- **More AI** = ability to **analyze enormous data flows** and **quickly present options** to decision-makers to choose the most suitable response.

In particular, AI would be decisive for an **AI-powered C2** capable of transferring data **almost in real-time** from sensors to interceptors and other defense systems on **land, sea, and air**. **“C2 is crucial for the success of the Golden Dome”**, she reiterated.



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SBI: the great cost multiplier

One of the most contested points remains the **space-based interceptors** component: analysts and legislators fear that **too many interceptors in orbit** are needed to stop multiple missiles launched almost simultaneously.

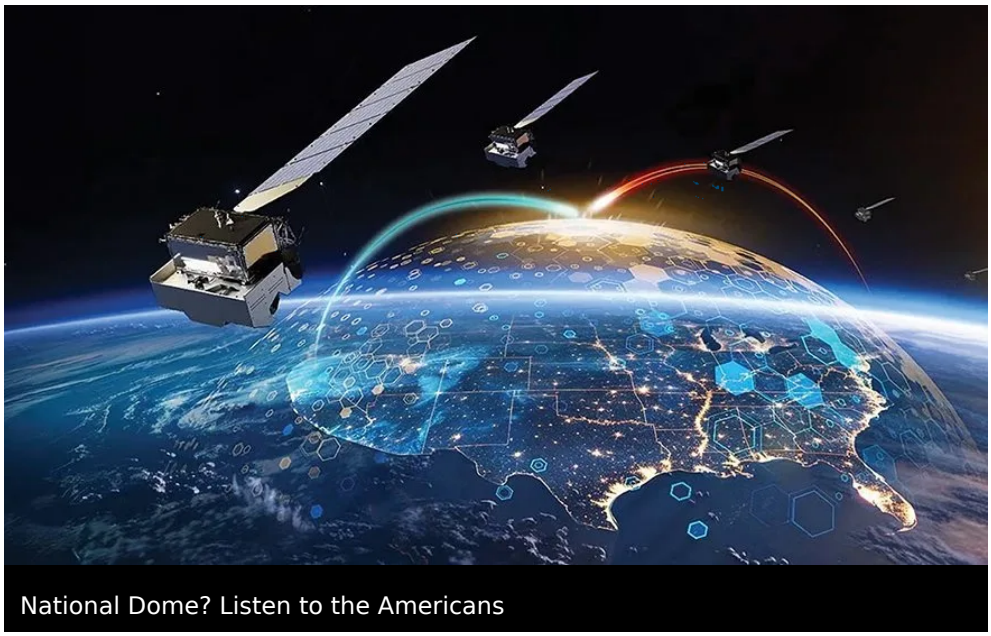
Here a physical limit comes into play: in **low Earth orbit (LEO)** an interceptor remains “in useful position” relative to a ground target for only **7–10 minutes**. Result: to truly cover the globe and ensure engagements, **numerous constellations** are needed. The problem is known as the **“absentee ratio”** and is even tougher in the **boost-phase** (right after launch), where the window to strike lasts **few minutes**.

Missile tracking: military space + commercial solutions

Holmes said that a “key element” will be the ability to **develop and integrate** data from tracking satellites made by both the DoD and the private sector, **leveraging existing systems** and also focusing on **commercial solutions**.

In the overall picture:

- the **Space Development Agency (SDA)** is working on a **Tracking Layer** in LEO to track ballistic and hypersonic missiles, with global coverage expected by **2029**, in addition to “fire control” sensors;
- the program has received remarks from the **GAO** on risks of **technological development, delays, and cost overruns**;
- **Space Systems Command** is also pursuing tracking in **medium Earth orbit (MEO)**: in June 2025 a contract worth **1.2 billion dollars** was awarded to **BAE Systems** for 10 **Epoch 2** satellites, with launches expected from **2029**.



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DIU pushes on commercial: “high fidelity” sensors and tight deadlines

The latest acceleration comes from the **Defense Innovation Unit (DIU)**, which seeks high-precision commercial sensors to:

- **detect, track, and discriminate** (separate real warheads from decoys/countermeasures),
- enable **fire control** with highly accurate data for engagements with **kinetic kill vehicle (KKV)**.

The timeline is tight: **laboratory demonstration in 6–8 months** from assignment and **in-orbit testing in 12–24 months**.

Final line

For the Pentagon, Golden Dome is played on a balance: **layered and integrated defense**, but above all **less “it costs too much”**. And the recipe, according to Holmes, involves two levers: **reforming how systems are purchased and developed** and using **AI/autonomy** to make the machine (sensors–C2–interceptors) work **faster and with lower costs**.

News link: https://breakingdefense.com/2026/02/to-overcome-golden-dome-affordability-hurdle-dod-needs-acquisition-reform-ai-official/