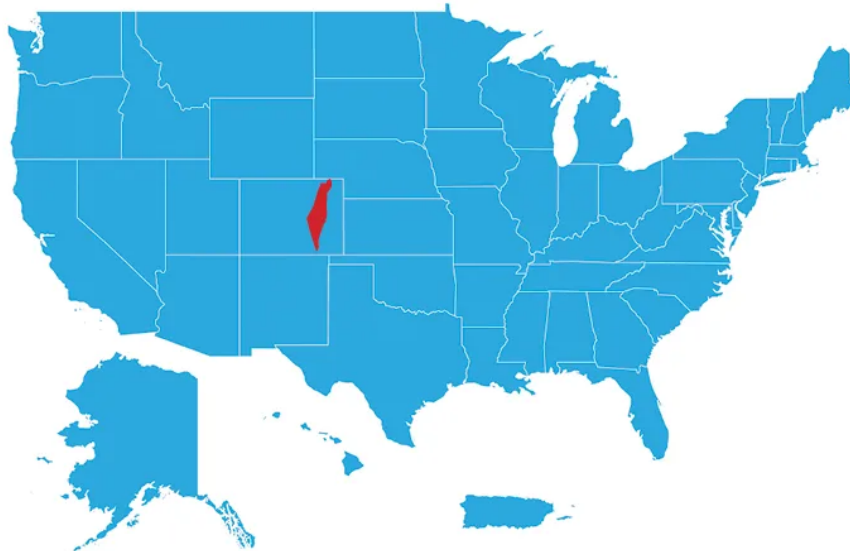


Realistic Expectations on Golden Dome and National Dome

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In the article **“Realistic Expectations for Golden Dome by 2028”** by Air & Space Forces Magazine, Maj. Gen. Thomas D. Taverney, USAF (Ret.) writes that the design of the Golden Dome is taking shape, but **the path remains uncertain**. This national defense project is born with a broad spectrum: protection of the continental United States against ballistic, hypersonic, and cruise threats, extending to defense against aerial threats and UAVs (including salvos and swarms). On the strategic level, the goal is clear: to reduce vulnerability to nuclear coercion and increase resilience in the face of peer competitors and regional actors.

The point, however, is that the deterrent value is not only “homeland”. If OCONUS bases, assets, and interests remain exposed, the pressure does not disappear: it is simply shifted to other targets, often more “politically sensitive” and operationally critical.



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Why the comparison with Iron Dome is misleading

The **comparison with Israel** is convenient but incomplete. The US geographical scale, the multiplicity of attack axes (especially maritime), and the evolution of threats make the problem qualitatively different. Hypersonic and modern cruise compress engagement times and windows, fly in complex profiles, and increase the load on sensors and command/control.

In this context, three elements become truly decisive:

1. **manage concentrated salvos** without exhausting interceptors and “firepower capacity”;
2. **deploy adequate numbers** (including space components) at sustainable costs, knowing that the adversary chooses times and methods;
3. build a **BMC3** (Battle Management Command, Control, and Communications) capable of fusing sensors, assigning priorities, and orchestrating multiple engagements in very short times.

“Boost phase” and “left-of-launch”: technical promises, strategic frictions

Intercepting in the boost phase or hitting “left-of-launch” is attractive because it shifts engagement to more vulnerable phases. But to ensure continuous coverage, persistent presence over launch areas would be needed, with a high number of assets and rapidly non-linear costs. Moreover, the “left-of-launch” introduces two frictions: (i) political decisions and rules of engagement that imply the use of force on adversary territory on a probabilistic basis; (ii) the difficulty of neutralizing hardened targets (silos, protected sites, mobility, and concealment).

System	Intercept Phase	Targets	Range
Patriot	Terminal	SRBM/MRBM	40 km
THAAD	Reentry	SRBM/MRBM IRBM	200 km
AEGIS/SM-6	Terminal	MRBM/IRBM	240 km
AEGIS/SM-3	Midcourse	MRBM/IRBM ICBM/ ASAT	15,00 km
GBI (ground-based interceptor)	Midcourse	ICBM	3,000 km

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The truly feasible part: integration and open architecture

The realistic way is not “building from scratch”, but integrating and evolving existing systems within a coherent architecture. Here, **open architecture** matters: the ability to absorb new technologies and new effectors without rebuilding the entire operating system. In parallel, a broad industrial mobilization is needed: primes, subcontracting, payload, commercial operators, non-traditional companies. Because, more than technology, the real risk is in the **production scale** (supply chain, backlog, industrial capacity).

The United States already has significant interceptors and sensors (land/sea/space) and advanced C2 infrastructures. But “Golden Dome” demands the integrated management of very different threats in profile, signature, and flight times, with saturation possibilities.

The recurring gaps are:

- lack of an **economically sustainable defense** against salvos/swarms in restricted areas;
- need for **better discrimination** in midcourse (decoy/MIRV, targeting complexity);
- absence of **operational space interceptors** for boost/early midcourse on a large scale;
- BMC3 with superior requirements in resilience (cyber/EW), bandwidth, and decision speed.

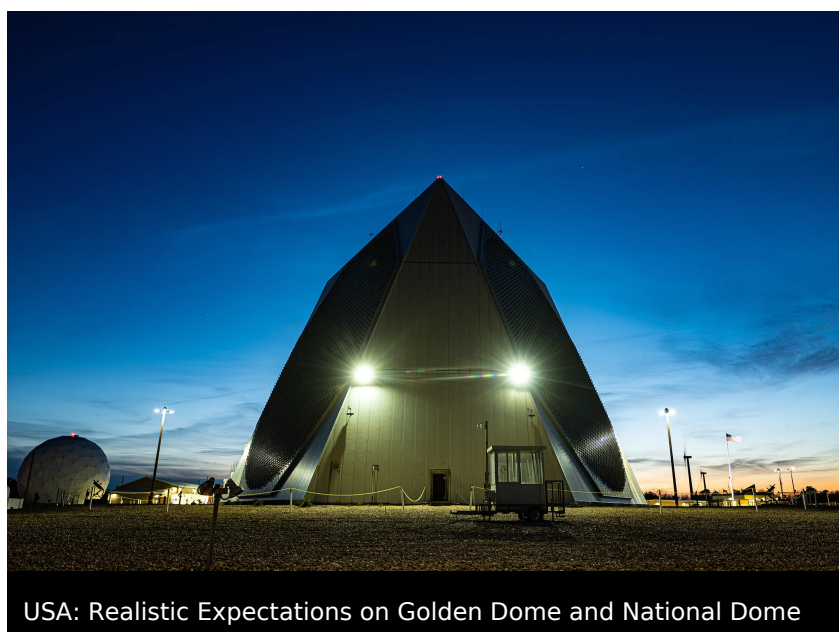
What is realistic by 2028

The credible goal is not the “total shield”, especially against high-intensity and saturation scenarios. The credible goal is a **baseline** that significantly raises the risk threshold for limited

threats and coercion scenarios, building technical and industrial foundations for subsequent expansions.

By 2028, this mainly means:

- accelerating **space sensing** (warning/tracking) with more resilient constellations;
- unifying data and decision chain up to the **fire control** level;
- making a more robust and scalable **ground BMC3** available;
- enhancing and integrating air/missile defenses already in service (land and sea);
- demonstrating key components (space interceptors, early midcourse capabilities) with credible industrialization paths;
- introducing where sensible **ground-based laser capabilities** against drones and “soft” cruise (economy of fire);
- strengthening defenses against cyber, jamming, and spoofing.



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National Dome and the risk of narrative shortcut

And this is where the narrative shortcut must be avoided. A “dome” is not a dome that “covers everything”: it is a layered IAMD system, with physical, economic, and operational limits, where the difference is made by **priorities, capabilities, and especially the ability to withstand saturation**. If “total shield” is communicated, then the project is evaluated on an unattainable absolute and condemned to disappointments, waste, and political swings. As **we have already highlighted** on **brigatafolgore.net**, the greatest risk is not technical but conceptual:

transforming a complex architecture (sensors-C2-effectors) into a slogan. For this reason, even from an Italian perspective, a possible “National Dome” makes sense only if anchored to measurable objectives, progressive phases, and declared limits: otherwise, the promise becomes propaganda, and **propaganda devours resources without producing true operational effectiveness.**

News link: <https://www.airandspaceforces.com/article/realistic-expectations-for-golden-dome-by-2028/>