

INDUSTRY PERSPECTIVE

Affordable Mass: The Future of Readiness

BY ADIT GIRDHARI



Battling today's adversaries requires speed and scale — not perfection. That is the premise of affordable mass, a design and procurement model built on standardization, supply chain resilience and adaptability.

The question facing the U.S. defense sector is no longer whether this approach is necessary, but whether it can accept “good enough now” over “perfect years from now.”

Defense acquisition was designed for milestone programs and is intentionally slow, deliberate and risk averse.

Yet today's operational readiness cannot be achieved with perfection at any expense. Modern deterrence demands solutions that are affordable, scalable and available now. That's affordable mass, a strategy featuring rapid, high-rate production of adequate, survivable capabilities.

For decades, U.S. defense strategies have been dominated by the pursuit of “exquisite” systems. These high-performance, one-of-a-kind platforms deliver unmatched battlefield results and will always be vital to defense, but the nation needs more than a handful of costly systems to guarantee dominance.

Affordable mass is a deterrent, ensuring that when conflict comes, the military has both capability and capacity.

Affordable mass balances cost and volume to meet the demands of the modern battlefield. “Affordable” doesn't mean “cheap” — it means smart.

For example, rejecting custom design cycles in favor of existing standardized and proven components. Instead of designing everything from the ground up, developers capitalize on components that already work, combining them in new ways. This minimizes development risk, tightens schedules and drives down unit cost. Think of it like building with really expensive LEGO bricks rather than

carving each piece from marble.

“Mass” is just as important.

An affordable design has limited value if it cannot be produced in high quantities quickly. Mass means producing capabilities at scale — tapping into automation and working with suppliers committed to vertical integration where electronics, machining and testing are brought together under one roof.

External supply chains must also be aligned, reducing timelines by anticipating needs, stocking high-demand parts and participat-



ing early in design discussions.

The most interesting part of this story isn't happening at the biggest defense contractors. Hundreds of smaller firms are chasing pieces of the Defense Department's affordable mass initiatives. Startups, venture-backed firms and entrepreneurial-minded innovators are rising to the challenge, confronting legacy norms with novel business models.

The shift has opened a very big door for this new generation of nontraditional defense contractors. These “mini-primers” are setting up shop in regions with fewer regulatory barriers and greater freedoms for development and testing, proving that cost and schedule can be traded to bring weapons online quicker, and challenging the existing methodology of established contractors.

Using common, off-the-shelf subsystems reduces cost and simplifies logistics. It also accelerates production by increasing the potential for automation, which arrives late in traditional programs,

only after the line is validated.

In an affordable mass model, it's built in from day one, allowing manufacturers to reach steady-state production within months, not years. Determining when to standardize and when to customize is also a big part of the production line, with customization only occurring where mission requirements demand it.

Affordable mass is fundamentally about making the proper trades — balancing performance, cost and readiness to find the closest fit for mission needs. The sweet spot is usually not perfect performance in any one area, but acceptable performance across all areas — a trade-off for a faster development timeline. Map out what is needed, what's available and what's cost-effective. And lock the baseline early, as excessive changes undermine affordability and delay production.

Incremental improvements can follow over time, but baseline stability is the key to speed and mass production. If the “schedule drives everything,” aerospace suppliers must condition themselves to think more like entrepreneurs or startups and recognize that meeting the mission set quickly becomes more important than achieving every technical perfection.

Procurement strategies have historically been objective-based, geared to achieving maximum performance without regard to cost or timeline.

For the acquisition community, affordable mass is an opportunity to rethink how these contracts are structured, how suppliers are evaluated and how risk is defined. The new model must be threshold-based, prioritizing must-have features and eliminating or deferring nice-to-haves.

Change is never comfortable, especially in entrenched thinking, systems and organizations. But program and procurement officials already understand the urgency. Adversaries are building capable systems at scale, readily accepting that speed, not perfection, will shape deterrence and provide an edge.

For the United States, the challenge is no longer why affordable mass matters, but how to make it real within a system built for an entirely different approach. **ND**

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