



The Drone Production Gap

A FABIUS GROUP BRIEFING

We won the Second World War on steel we owned — and we could lose the next on magnets China owns, because thirty years of offshoring electronics processing handed our adversary the arsenal of attritable drones we can't build overnight, unless we trade the factory model for Ukraine's: *cheap, distributed, and everywhere.*

GLOBAL CAPACITY ANALYSIS · U.S. VS. CHINA & PEERS · JULY 2026

The number that defines the problem

BOTTOM LINE UP FRONT

Roughly **500 American drone companies together build fewer than 100,000 drones a year**. A single Chinese company, DJI, builds **millions**. The United States does not have a technology gap in drones — it has a *manufacturing-volume gap*, and that gap is a supply-chain problem before it is a factory problem.

Think of it like ammunition. A rifle that never misses is worthless if you only have a hundred rounds and the enemy has a hundred thousand. Modern drone warfare — proven daily over Ukraine — is a war of magazine depth, not marksmanship. The side that can lose a thousand cheap aircraft and shrug wins the exchange. On that scoreboard, the U.S. currently trails badly on volume even as it leads on the high end.

<100k

U.S. drones built per year (≈500 firms, all types)

~4M

Ukraine drones produced per year (2025)

~90%

DJI share of the U.S. commercial drone market

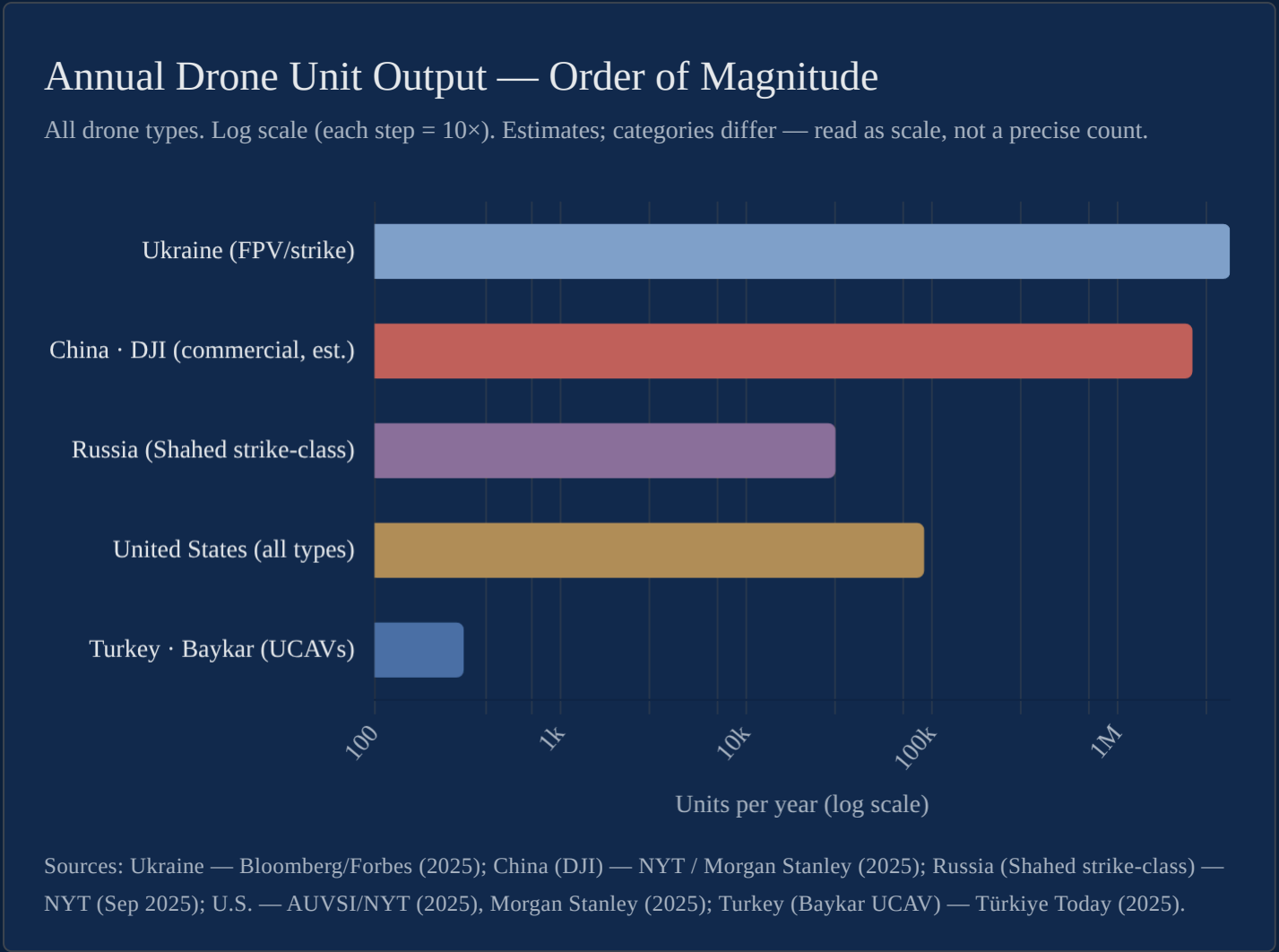
~99%

China share of drone-grade Li-ion cell supply

Sources: AUVSI / New York Times (Jul 2025); Forbes & Bloomberg (2025); CSIS (Dec 2024); TheNextWeb / CEPA (2026). Full citations below.

One chart, the whole story

The cleanest way to see the gap is to put annual unit output side by side. Because the range spans from tens of thousands to millions, the bars below use a **logarithmic scale** — each gridline is 10× the last. A small visual difference is a large real one.



Read this carefully. These categories are not identical. China's "millions" are mostly commercial camera drones; Ukraine's ~4M are cheap FPV strike aircraft; Russia's ~30,000 are long-range one-way attack drones; Turkey's ~300 are large, exquisite, exportable UCAVs. The point is not that a DJI selfie drone equals a Shahed — it is that the *industrial muscle to stamp out airframes at volume* sits overwhelmingly outside the United States.

What America actually produces

The U.S. industrial base is wide but shallow: hundreds of firms, most of them small, each building in the hundreds or low thousands. Below are the public capacity figures for the names that matter. Notice how few produce at true volume — and that the largest single line, AeroVironment's Switchblade, tops out near **14,400 units a year**, a rounding error against Ukraine's millions.

MANUFACTURER	SYSTEM	STATED RATE / CAPACITY
AeroVironment	Switchblade loitering munition	→ 14,400 / yr (expanding)
Anduril	Arsenal-1 (Fury & others)	"Tens of thousands / yr" (nameplate)
Anduril	Fury (fighter-class CCA)	150 aircraft / yr at full rate
Skydio	Small ISR quadcopters	60,000+ delivered (cumulative)
Red Cat	Army short-range recon	3 new plants (2026)
General Atomics / Northrop	MQ-9, large ISR (Group 5)	Low tens / yr (exquisite)

Sources: Army Recognition & Defense News (Oct 2025); Breaking Defense (Mar 2026); IndustrialSage (May 2026); 247WallSt (Mar 2026). Company figures are self-reported nameplate or cumulative, not audited annual throughput.

The dependency hiding underneath

The deeper issue isn't the factories — it's what goes *into* them. Even a drone assembled in Ohio is often a Chinese drone in disguise, because the parts that make it fly come from one country. A U.S. factory can pour concrete in a year; rebuilding a magnet or battery-cell supply chain takes half a decade.

We won the last war on a raw material we owned. We don't own this one.

America out-built every adversary in the Second World War because it controlled the essential raw material of industrial warfare: **steel**. Domestic ore and domestic mills let the U.S. launch a ship a day and out-produce the entire Axis in tanks and aircraft. The "Arsenal of Democracy" was, underneath the slogan, a story about owning the inputs — steel, oil, and the mills to turn them into materiel faster than the enemy could destroy them.

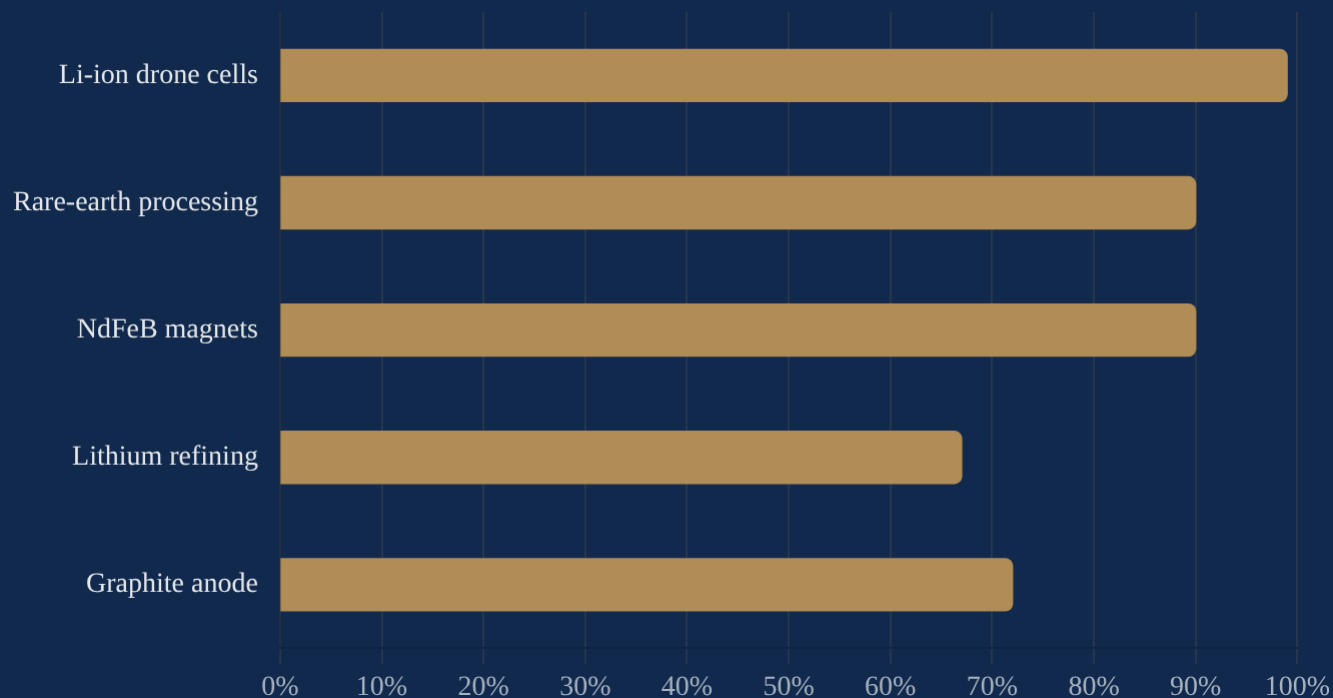
The wars of the future run on a different bill of materials: rare-earth magnets, lithium cells, processed graphite, gallium. And this is the hinge of the entire problem — **the United States does not have access to the raw materials of the next war the way it once had access to steel**. China does. It refines the magnets, the cells, and the metals that every drone depends on.

And here is the break with 1941 that has no precedent: our steel then was not controlled by Berlin. Today, the inputs we would need are refined by the country we would actually be fighting. The constraint in the last war was our own **mobilization will** — how fast we chose to convert Detroit. The constraint in the next one is **adversary control** — a supply the other side can switch off before the first shot is fired.

You cannot be the arsenal of a war whose raw materials you have to buy from your adversary.

China's Grip on the Drone Supply Chain

Share of global supply for the components inside almost every drone.



Sources: CSIS, "The Drone Supply Chain War" (Dec 2025); TheNextWeb (May 2026); CEPA (May 2026). Figures are widely-cited estimates.

Who leads, and on what

"Drone power" isn't one race — it's four. Sorting the players by *what they're actually best at* reveals where the U.S. stands and where the volume lives.

PLAYER	EDGE	SCALE MARKER
China	Manufacturing density & components	DJI ~millions/yr; ~90% of magnets, ~99% of cells
Ukraine	Distributed low-cost mass production	~2.2M (2024) → ~4M+ (2025)
Russia	Long-range strike-drone volume	~4,700 (2024) → ~30,000 Shahed/yr (2025)
Turkey	Exportable UCAVs (Baykar)	TB2 ~250 + Akıncı ~50/yr; \$2.2B exports (2025)
Israel	High-end systems by export value	~\$15B total defense exports (2024), drone-led
United States	Software, autonomy, exquisite platforms	<100,000/yr all types — trails on volume

Sources: CSIS (2024–25); NYT & Bloomberg (2025); ISIS/Albright (Sep 2024); Baykar / Türkiye Today (2025–26); Breaking Defense (2023); Israel MoD (2024).

The Ukraine lesson. Ukraine went from near-zero to an estimated **4 million drones a year** in roughly 24 months — not by building megafactories, but by wiring together thousands of small workshops assembling cheap airframes from commodity parts. RAND's analysts note Ukraine now fields more drone *variety* than all NATO countries combined. Capacity, it turns out, can be grown fast — if you design for cheapness and distribution rather than perfection.

Why they win: three layers, two playbooks

"They have the minerals and we don't" is the easy answer — and it's about a quarter of the real one. China and Ukraine out-produce the U.S. for almost *opposite* reasons, and the gap opens across three separate layers, not one. Sorting them shows exactly where America is stuck.

1	Refined inputs Turning ore into the parts that matter — sintered magnets, battery cells, processed graphite, gallium. Note the verb: <i>refining</i>, not mining. The ore is dug in the U.S., Australia, and Africa; the value is added in China.	LEADS: CHINA U.S. import-dependent — ~90% of magnets, ~99% of cells
2	The manufacturing commons The co-located web of suppliers, tooling shops, and engineers that turns those inputs into finished units — cheaply, and at scale. This is the deep moat: a part is two days away, not six weeks.	LEADS: CHINA U.S. offshored the cluster over 30 years
3	Demand & doctrine The willingness — and the buying system — to actually order and field millions of cheap, expendable units. Treating a drone as ammunition, not as an aircraft.	LEADS: UKRAINE / RUSSIA U.S. peacetime procurement, exquisite-platform bias

The U.S. trails on all three — but which one is *binding* depends on the war. To match Ukraine's assembly volume you mostly need Layer 3, which can move in months. To be independent in a real fight with China you need Layers 1 and 2 — the slow, hard, decade-long ones.

Two playbooks, not one

The single biggest analytical error is treating China and Ukraine as the same phenomenon. They are opposite proofs of the same point — that raw material in the ground is not what wins.

CHINA · INCREASING RETURNS

Own the ecosystem

- **Agglomeration flywheel** — once suppliers co-locate, each new firm makes every other more productive; density pulls in more density.
- **Absorbed the ugly middle** — took the pollution, thin margins, and patient state capital the West shed to chase high-margin design.
- **Predatory pricing** — floods the market to bankrupt entrants (Molycorp/Mountain Pass, 2015).
- **DJI is the output, not the cause** — a product of the Shenzhen cluster, ~100× any single U.S. maker.

UKRAINE · DOCTRINE OF THE CHEAP

Own the demand

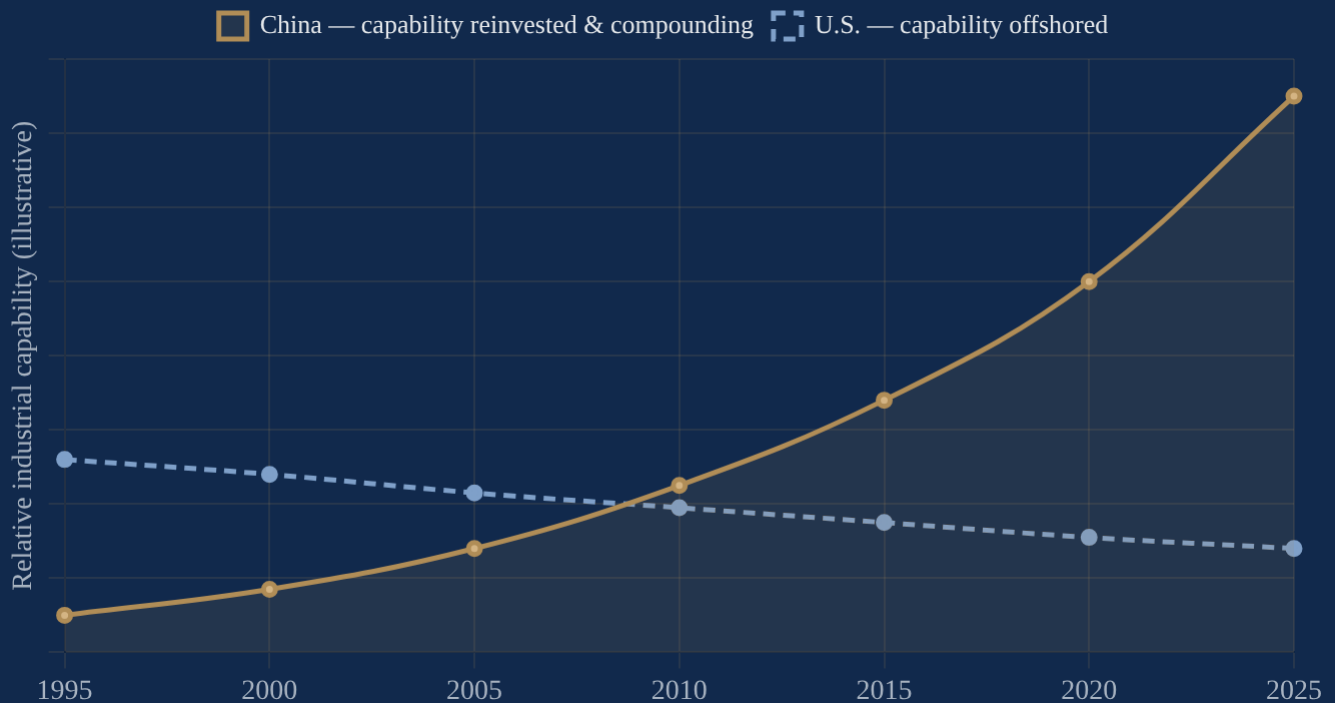
- **Owns almost none of the materials** — imports its parts, largely from China, and still builds ~4M/yr.
- **Distributed assembly** — thousands of small workshops, not megafactories; hard to bomb, fast to grow.
- **Existential demand + permissive buying** — a drone is treated as a consumable, procured in days.
- **The counter-proof** — materials-in-ground is clearly not the assembly constraint.

The principle underneath: capability compounds

Both playbooks rest on one economic truth that the raw-materials framing misses. **Manufacturing capability is generative — the ability to make things is upstream of the ability to invent the next thing and to scale it cheaply.** The West's bet, named by Pisano and Shih back in 2009, was that manufacturing was a low-value commodity you could safely offshore while keeping the "valuable" design work. It was wrong in one specific way: when the making leaves, the commons that supports both making *and* inventing migrates with it — and it doesn't come back at the price you sold it for.

Why the Gap Widened — Capability Compounds

Illustrative schematic of the mechanism, not measured data. One side reinvested industrial capability for 30 years; the other cashed it out.



Concept after Pisano & Shih, "Restoring American Competitiveness" (Harvard Business Review, 2009). Curve shapes are illustrative of the compounding dynamic, not a measured index.

TOPSOIL, NOT A CROP

You can build a factory in a year. You cannot build Shenzhen in a year.

The U.S. kept harvesting the high-value crop — IP, design, brand — and exported the soil-building, which is manufacturing. Two decades of great harvests. But fertility migrates to wherever the growing actually happens. Now America owns the seed patents and China owns the farmland *and the topsoil*, and you cannot rebuild topsoil in one season by dumping fertilizer.

A single factory is fertilizer. Shenzhen is topsoil.

What most people get wrong. They think China won on cheap labor — so "their wage edge is gone, just reshore." Chinese wages have risen five- to ten-fold since the 1990s and it *still* dominates. Low-end assembly did leave for Vietnam and India; the component ecosystem stayed, because you can't move a commons. The moat is the network, not the wage.

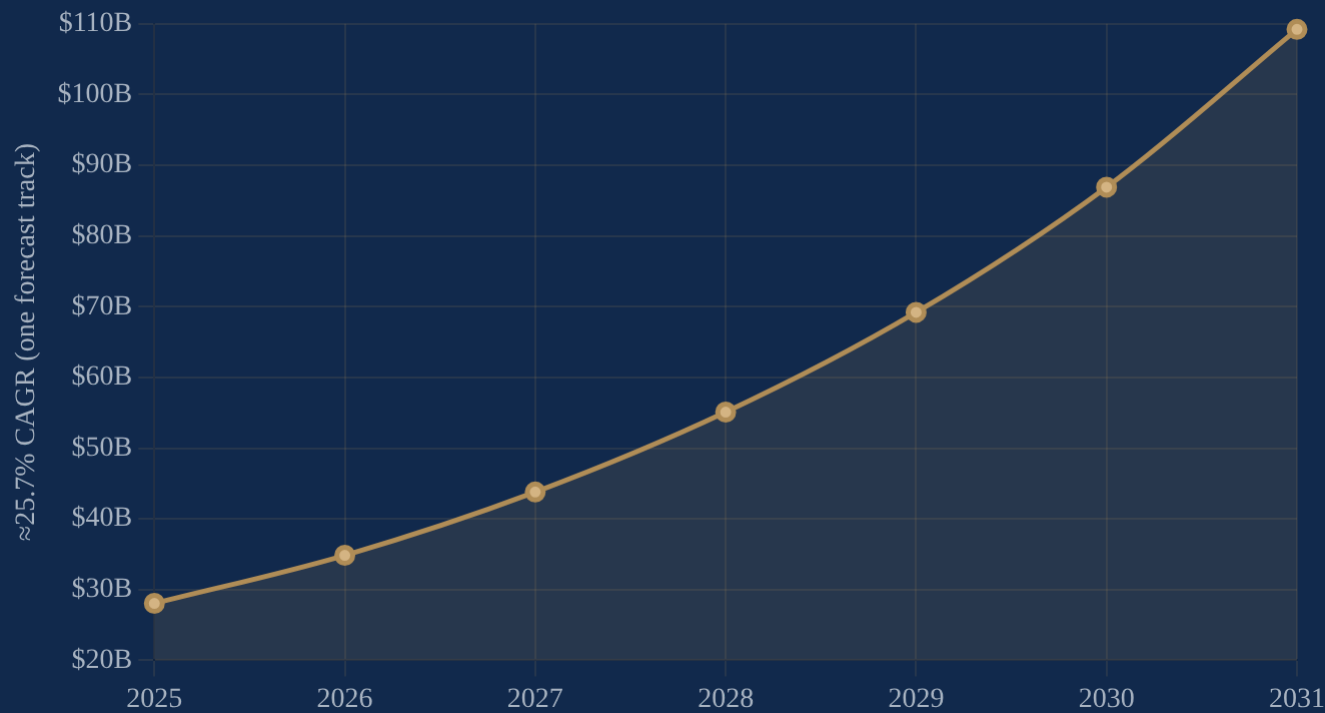
This is why the fix on the next pages is not "build one more factory." If the moat is thirty years of compounded, co-located capability, you can't buy it back in two — you can only *borrow* the density you don't have (friend-shore into Taiwan, Korea, Japan, and Ukraine itself) while rebuilding at home the two or three chokepoints a war actually turns on — using guaranteed demand to manufacture the market signal that won't appear on its own.

How fast can the U.S. close the gap?

The money and the mandates have arrived. The question is whether they convert into airframes. Two curves tell the story: the **dollars** flooding into military drones, and the **unit targets** the Pentagon has set for itself.

Military Drone Market — Projected Growth

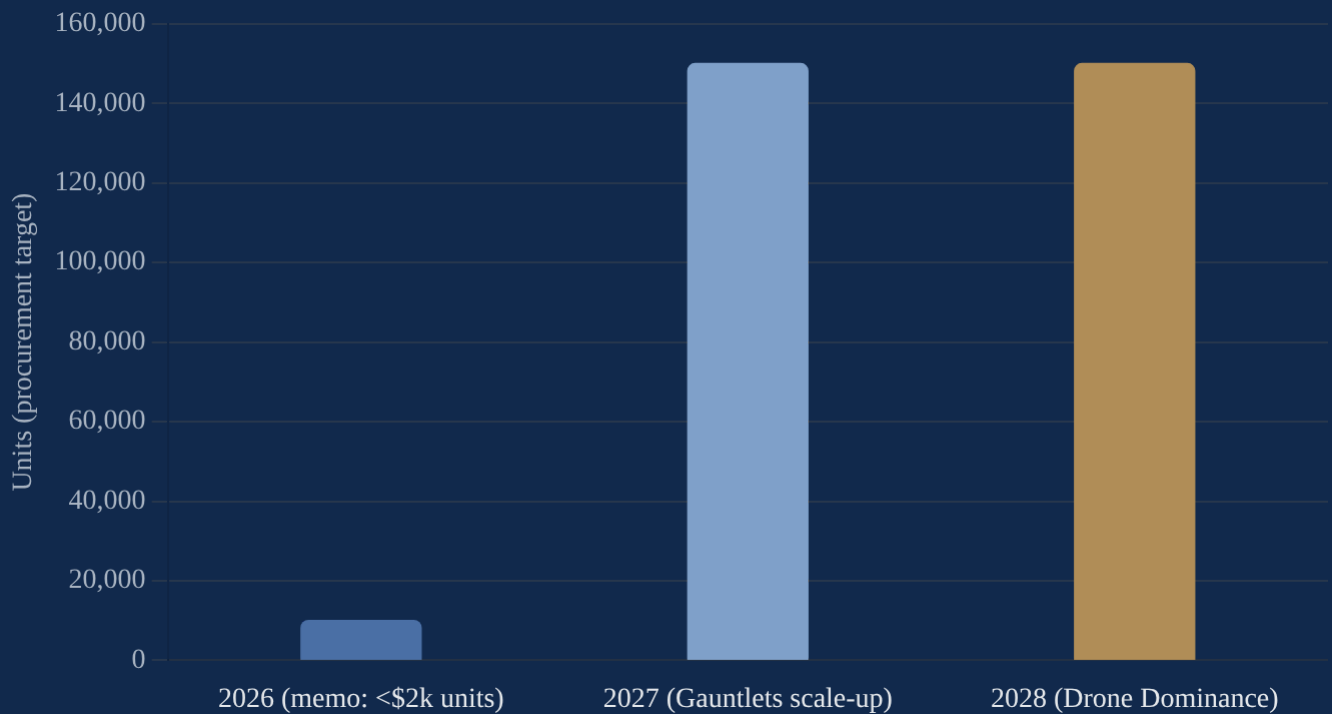
Global military UAV market, USD billions. One forecast track; market-size estimates vary widely by scope.



Source: MarketsandMarkets (2026). Note: the same firm published a conflicting \$22.8B-by-2030 figure under a narrower definition — treat market-size numbers as directional.

U.S. Small-Drone Procurement Targets — The Ramp

Government unit goals, cumulative. These are procurement targets, not delivered output.



Sources: Hegseth "Military Drone Dominance" memo (Jul 2025); War Dept "Gauntlets" solicitation (Dec 2025); "Drone Dominance Program" 150k-by-2028 target, CEPA (2026).

Where the capacity is being poured

Three initiatives carry most of the weight of the 2030 outlook:

\$54.6B

FY27 request for autonomous warfare (DAWG), successor to Replicator — \$1B base + ~\$53B flexible

~5M ft²

Anduril's Arsenal-1 (Ohio): "tens of thousands" of autonomous systems/yr at full build

\$3.5B

Skydio's 5-year U.S. manufacturing commitment; new line 5× current footprint

150k

Small drones targeted by 2028 under the Drone Dominance Program

Stack these up and the *trajectory* is real: from an implied ~50–100k units today toward hundreds of thousands by 2028. But note the shape of the curve — even the aggressive 2028 target of 150,000 drones sits **below what Ukraine builds in a single month at surge rate**. The U.S. is accelerating hard from a very low base, and closing the volume gap by 2030 is a stretch, not a foregone conclusion.

What actually drives capacity up or down

Production capacity isn't one lever — it's a product of several, and they multiply rather than add. Miss any one and the whole line stalls. Here is the capacity equation:

$$\text{Component Supply} \times \text{Unit Cost}^{-1} \times \text{Procurement Speed} \times \text{Iteration Rate} = \text{Volume}$$

DRIVES CAPACITY UP

What China & Ukraine have

- **Vertically integrated components** — batteries, magnets, motors made at home, so the line never waits on an import.
- **Low unit cost** — a \$500 airframe can be built and lost by the thousand.
- **Permissive buying** — treat small drones as consumables, buy commercial, skip the 5-year acquisition cycle.
- **Fast iteration** — software-defined designs updated weekly against battlefield feedback.

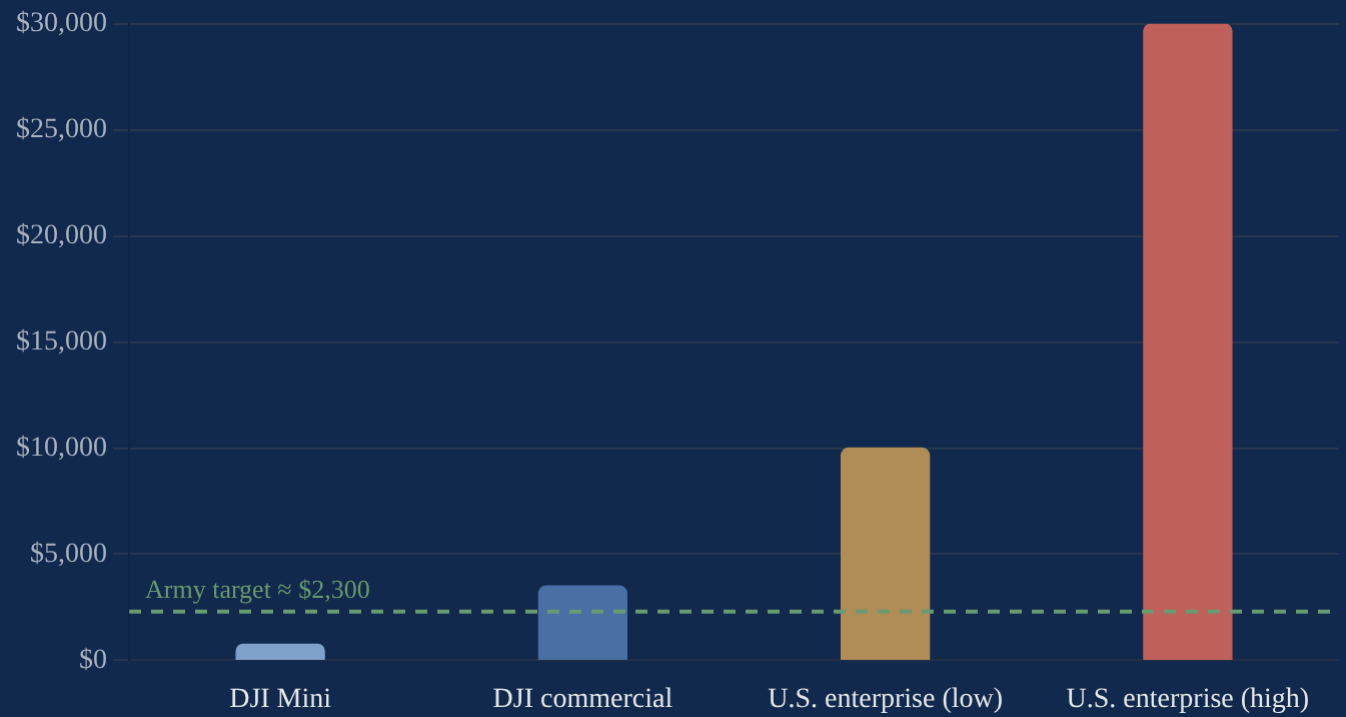
DRIVES CAPACITY DOWN

What has held the U.S. back

- **Foreign component dependence** — ~90% of magnets, ~99% of cells from China; a single export ban stalls the line.
- **High unit cost** — U.S. enterprise drones run \$10k–\$30k vs. \$2k–\$5k for the DJI equivalent.
- **Slow, exquisite procurement** — built to buy a few perfect systems, not a million good-enough ones.
- **Thin supplier base** — hundreds of small firms, little shared tooling or volume purchasing.

The Cost-Parity Problem

Per-unit price, small commercial/tactical class. The U.S. must fall to the dashed line to compete on volume.



Sources: TheNextWeb (May 2026); U.S. Army "Gauntlets" solicitation (Dec 2025) — target ~\$2,300/unit.

The cost driver is the multiplier that matters most, because it feeds the others. Cheap units justify buying many; buying many justifies domestic supply investment; domestic supply drops the cost further. It's a flywheel — and right now it's spinning in China's favor.

Closing the gap: the arsenal, not the artisan

The instinct is to build a bigger factory. The evidence says the factory is the easy part. The gap closes only if three things move together — and none of them is a building.

1

Onshore the chokepoints, not the airframes

The real bottleneck is upstream: NdFeB magnets, LFP battery cells, motors, flight controllers. Directing capital here — via friend-shoring with allies and guaranteed offtake — is worth more than another assembly plant. A U.S. drone line without a U.S. cell supply is a Chinese line with an American flag on it. This is a 5-year build, so it must start now.

2

Buy the many, not the few

Reclassify Group 1–2 drones as consumables — ammunition, not aircraft. Fixed-price, high-volume, commercial-style buys with the acquisition friction stripped out. The Hegseth memo and the "Gauntlets" solicitation (340,000 units on \$1B) are the right template; the job is to make that the default, not the exception.

3

Engineer to a price, and let the crowd build it

Set a hard target — a capable strike/ISR drone at **under \$2,000**, all-domestic — and hit it by designing for cheapness, then distribute production across many small, agile manufacturers the way Ukraine did. Volume is a network, not a monolith. Prime-plus-small-business teaming and set-aside pathways are how you plug hundreds of nimble builders into a national line without waiting for one giant to scale.

THE THESIS

America's drone gap is not a story of who has the smartest engineers — it's a story of who has the deepest magazine. In 1943 that magazine was filled with steel we mined ourselves; today it must be filled with magnets and cells we largely import. Win the raw-material supply, price the airframe like a bullet, and spread the build across a swarm of small manufacturers, and the volume follows. Build one more exquisite factory and it won't. *The arsenal beats the artisan — but only if you own the ore.*

This briefing synthesizes publicly reported figures for informational purposes. Unit-output numbers across countries measure different drone categories and are drawn from estimates that vary by source; market-size forecasts conflict and should be read as directional. Nothing here constitutes investment advice.

SELECTED SOURCES

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- CSIS — "The Drone Supply Chain War" (Dec 2025); "Why China's UAV Supply Chain Restrictions..." (Dec 2024); "China Outpacing U.S. Defense Industrial Base" (Mar 2024).
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- ISIS / Albright (Sep 2024); New York Times (Sep 2025) — Russia Shahed/Geran output.
- Türkiye Today & Baykar (2025–26) — Turkey UCAV capacity & exports; Breaking Defense (2023), Israel MoD (2024) — Israel exports.
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- DefenseScoop & Breaking Defense (Jul 2025) — Hegseth drone-dominance memo; Army.mil (Dec 2025) — "Gauntlets"; Defense One (May 2026) — DAWG/FY27 budget; CEPA (May 2026) — supply-chain reality check & 150k-by-2028.
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