

REBUILDING THE ARSENAL OF DEMOCRACY

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Policy Memo

Progressive Policy Institute

December 9, 2025

America's defense industry can no longer produce arms and ammunition at the required cost, scale, and speed. Despite some progress in reviving munitions production since the Russian invasion of Ukraine in February 2022,¹ the American defense industry no longer resembles the famed arsenal of democracy that won World War II or the sprawling military-industrial complex that helped keep the peace during the Cold War.

To be sure, America's defense industry makes some of the world's finest and most advanced military hardware. But it's expensive to develop and build that hardware, and since the end of the Cold War, the Pentagon has too often spent enormous sums on gear that takes too long to field and cannot be bought in sufficient quantities — leaving the U.S. military with aging combat aircraft, warships, and other equipment that costs more and more to maintain over time. Some programs like the B-21 stealth bomber have come in below projected costs,² but general problems with production speed, scale, and cost remain pervasive across the industry.

And in major armed conflicts like the war in Ukraine, strategy scholar Phillips Payson O'Brien reminds us, "The military equipment with which a country starts a war is normally

¹ The U.S. Army has dedicated \$5 billion to increasing artillery shell production since 2022, opening new manufacturing plants across the country but missing its goal to make 100,000 shells per month by October 2025. See Meghann Myers, "Army Expects to Make More Than a Million Artillery Shells Next Year," *Defense One*, June 17, 2025, <https://www.defenseone.com/defense-systems/2025/06/army-expects-make-more-million-artillery-shells-next-year/406132/>; Matthew M. Burke, "Army approves new facility to ramp up artillery shell production," *Stars and Stripes*, August 21, 2025, <https://www.stripes.com/branches/army/2025-08-21/iowa-artillery-facility-expands-capacity-18833994>.

² Stefano D'Urso, "The B-21's Price Is Decreasing With Over \$5 Billion Saved for the First Five Lots," *The Aviationist*, November 12, 2024, <https://theaviationist.com/2024/11/12/the-b-21s-price-is-decreasing/>.

eaten up in short order, and the war becomes a desperate test to make, repair and recreate military force.”³

There’s no silver bullet to fix these issues — they’ve been decades in the making and will require concerted efforts to rectify. But these three core ideas can help guide efforts to make America’s defense industry the arsenal of democracy once again:

- **Send strong, consistent demand signals.** Weak and inconsistent demand signals have contributed significantly to the current state of the American defense industry. Companies have little incentive to invest in increased production capacity if their primary customer — the Pentagon — does not order sufficient quantities or on a consistent basis. A 2025 survey by the defense industry trade association, for instance, found 63% of industry respondents believed the government needed to “provide [a] clear, consistent demand signal through contract vehicles.”⁴ Likewise, a RAND Corporation study on the U.S. and European defense industries contended that “murky signals from governments on funding and requirements” made it more difficult to improve American and allied defense production; “consistent funding,” the report concluded, “is necessary to enable and incentivize industry to make the capital investments required to promote long-term capacity improvements.”⁵

Strong and consistent demand will be especially needed for munitions like 155mm artillery shells, HIMARS rocket launchers, and missile defense interceptors. As the wars in Ukraine and the Middle East have demonstrated, militaries burn through these munitions at extremely rapid rates. The Ukrainian military, for instance, fired some 5,000 155mm artillery shells per day in early 2025, or a projected 1.8 million-plus shells this year, while the U.S. Army aims to produce 100,000 rounds per month by early next year — or 1.2 million per year, well short of what Ukraine will expend by the end of this year.⁶ Similarly, the United States fired a quarter of its

³ Phillips Payson O’Brien, *War and Power: Who Wins Wars—and Why* (New York: Public Affairs, 2025), p. 18.

⁴ National Defense Industry Association, *Vital Signs 2025: The Health and Readiness of the Defense Industrial Base*, February 2025, https://www.ndia.org/-/media/sites/ndia/policy/vital-signs/2025/vitalsign_2025_final.pdf, p. 13.

⁵ Alisa Laufer, Howard J. Shatz, and Omar Danaf, “Implications of Russia’s War on Ukraine for the U.S. and Allied Defense Industrial Bases,” RAND Corporation, May 22, 2025, https://www.rand.org/content/dam/rand/pubs/research_reports/RR3100/RR3141-3/RAND_RRA3141-3.pdf, p. 75-6.

⁶ David Axe, “New Guns, More Ammo: Ukraine’s Artillery Blasts Away At A Rate Of Millions Of Shells A Year,” *Forbes*, February 28, 2025, <https://www.forbes.com/sites/davidaxe/2025/02/28/as-supply-chains-come-online-ukraines-artillery-blasts-away-firing-millions-of-shells-a-year/>; Myers, “Army expects to make more than a million shells.”

THAAD missile defense interceptors during the June 2025 war between Israel and Iran.⁷

Similar demand signals should be sent for big-ticket weapons platforms like fighter jets and warships. Constantly shifting military plans — from reducing the U.S. Air Force’s F-15EX order from 144 to 96 aircraft and then increasing it back to 129 over the past five years to curtailing the next year’s purchase of F-35 stealth fighters over unresolved software problems to absurd presidential directives to redesign the catapult system of the Navy’s new aircraft carriers⁸ — make it more difficult for industry to make long-term production plans itself and wind up costing the Pentagon more money in the long run.

Multiyear contracts, particularly for munitions, are one main way the Pentagon can make demand signals stronger and more consistent. Such contracts can help create the sort of predictability industry needs to make major investments in production capacity over the long run; the Congressional Research Service estimates that multiyear contracts may save between 5% and 15% over typical annual contracting procedures.⁹ Some notable progress has already been made on this front, with the Army issuing multiyear contracts for the manufacture of 155mm artillery shells and Patriot missile interceptors over the past few years.¹⁰ But the practice should be expanded to a wide variety of munitions like air-to-air missiles,

⁷ Lara Korte, “US Spends \$2B to Rebuild THAAD Arsenal After Iran Fight Drains Stockpile,” *Stars and Stripes*, July 30, 2025, <https://www.stripes.com/theaters/us/2025-07-30/washington-thaad-iran-interceptor-18607580.html>.

⁸ Tyler Rogoway, “F-15EX Planned Fleet Size Grows To 129 Jets,” *The War Zone*, June 26, 2025, <https://www.twz.com/air/f-15ex-planned-fleet-size-grows-to-129-jets-from-98>; Audrey Decker, “USAF Won’t Resume Full F-35 Buys Until Lockheed Wrings Problems From Upgrade: Service Chief,” *Defense One*, July 23, 2025, <https://www.defenseone.com/policy/2025/07/usaf-wont-resume-full-f-35-buys-until-lockheed-wrings-problems-upgrade/406934/>; Joseph Trevithick, “Executive Order To Go Back To Steam Catapults On New Aircraft Carriers Coming: Trump,” *The War Zone*, October 28, 2025, <https://www.twz.com/sea/executive-order-to-go-back-to-steam-catapults-on-new-aircraft-carriers-coming-trump>.

⁹ Ronald O’Rourke, “Multiyear Procurement (MYP) and Block Buy in Defense Acquisition,” Congressional Research Service, September 12, 2025, https://www.congress.gov/crs_external_products/R/PDF/R41909/R41909.144.pdf, p. 3-5.

¹⁰ Josh Luckenbaugh, “BREAKING: Army Awards First Multiyear Munitions Deal, Reveals New Loitering Bomb,” *National Defense*, August 7, 2023, <https://www.nationaldefensemagazine.org/articles/2023/8/7/army-awards-first-multiyear-munitions-contract>; U.S. Army Public Affairs, “Army Awards \$4.5 Billion Patriot Advanced Capability-3 Missile Segment Enhancement Missile Multiyear Contract,” June 28, 2024, https://www.army.mil/article/277680/army_awards_4_5_billion_patriot_advanced_capability_3_missile_segment_enhancement_missile_multiyear_contract; Dan Schere, “Army Awards \$9.8B Contract to Lockheed Martin for PAC-3 SME,” *Inside Defense*, September 3, 2025, <https://insidedefense.com/insider/army-awards-98b-contract-lockheed-martin-pac-3-mse>.

precision-guided munitions, and cruise missiles. It should also be seriously considered for weapons platforms like fighters, bombers, submarines, and surface combatants that will be procured in sufficiently large quantities.

Chronic use of continuing resolutions and government shutdowns, moreover, only compounds and exacerbates the larger problem of weak, inconsistent demand signals. Continuing resolutions and government shutdowns make it difficult to start new programs and, as the RAND Corporation puts it, “hampers [defense] firms’ ability to retain a high-performing workforce.”¹¹ The stop-start dynamic fostered by budgetary dysfunction both delays and raises the cost of manufacturing weapons systems and munitions.

Finally, industry itself has an important part to play. The COVID-19 pandemic and supply chain problems contributed strongly to many of the production issues facing the American defense industry, with over half of major defense programs experiencing at least some delay due to the pandemic.¹² But decades-long trends in America’s overall political economy have caused some defense companies to focus on stock prices and shareholder returns more than the production of arms and ammunition for America, its allies, and its security partners, or necessary investments in their workforces.¹³ As the U.S. government considers spending large sums of taxpayer money to send larger and more consistent demand signals to the defense industry, it should expect the defense industry to invest in the additional capacity and workforce needed to meet these demand signals—even if it means they must accept modestly smaller profit margins.

- **Work with partners and allies — don’t alienate and antagonize them.** America’s allies and partners around the world—NATO allies in Europe as well as Japanese, Korean, and Australian allies in the Pacific and security partners in the Middle East—represent another important source of demand for the American defense industry. These foreign military sales increase scale and reduce costs to the U.S. military on the margin, as well as creating new capabilities (such as Qatari and

¹¹ Laufer, Shatz, and Danaf, p. 84-85. See also Commission on Planning, Programming, Budgeting, and Execution Reform, “Defense Resourcing for the Future,” March 2024, https://ppbereform.senate.gov/wp-content/uploads/2024/03/Commission-on-PPBE-Reform_Full-Report_6-March-2024_FINAL.pdf, p. 81-82.

¹² Nayantra D. Hensel, “The Impact of COVID-19 on the U.S. Defense Industrial Base,” Department of Defense Manufacturing Technology Program, January 20, 2022, <https://www.dodmantech.mil/News/News-Display/Article/2926106/the-impact-of-covid-19-on-the-us-defense-industrial-base/>.

¹³ Christopher Leonard, “America Doesn’t Have Enough Weapons for a Major Conflict. These Workers Know Why,” *Politico*, October 27, 2025, <https://www.politico.com/news/magazine/2025/10/27/lockheed-martin-strike-orlando-weapons-missiles-00514386>.

Emirati demand for advanced versions of the F-15 and F-16 fighters¹⁴) and keeping defense production lines open.¹⁵

More than that, the United States can and should rely on its allies and partners to invest in their own respective defense industries and co-produce munitions and other military hardware to both reduce costs and create resiliency. The 2021 Australia-United Kingdom-United States defense agreement stands out as the most prominent example of such cooperation, with its mutual investments in submarine construction as well as collaboration on areas like autonomous weapons and electronic warfare.¹⁶ Co-production of Patriot missiles, GMLRS rockets fired by the HIMARS launcher, and AIM-120 AMRAAM air-to-air missiles is also underway in Germany, Australia, and Japan, respectively.¹⁷

More initiatives along these lines should be pursued with key allies and partners, particularly when it comes to high-demand munitions like air and missile defense interceptors as well as naval shipbuilding.¹⁸ In particular, the United States could

¹⁴ Staff Sgt. Joseph Pick, “Qatar Emiri Air Force Partners With U.S. to Gain Newest F-15 to Their Fleet,” U.S. Air Forces Central Command Public Affairs, June 25, 2020, <https://www.afcent.af.mil/News/Article/2232406/qatar-emiri-air-force-partners-with-us-to-gain-newest-f-15-to-their-fleet/>; John R. Hoehn, “Air Force F-15EX Eagle II Fighter Program,” Congressional Research Service, May 2, 2022, https://www.congress.gov/crs_external_products/R/PDF/R46801/R46801.6.pdf, p. 3; Jamie Hunter, “How 50 Years Of Eagle Experience Has Shaped The Advanced F-15,” *The War Zone*, June 4, 2024, <https://www.twz.com/sponsored-content/how-50-years-of-eagle-experience-has-shaped-the-advanced-f-15/>; Tyler Rogoway, “Here’s What The Ball On The Nose Of UAE’s Block 60 F-16E/F Desert Falcon Does,” *The War Zone*, December 1, 2019, <https://www.twz.com/29897/heres-what-the-ball-on-the-nose-of-uaes-block-60-f-16e-f-desert-falcon-does>.

¹⁵ Tim Martin, “Lockheed Martin Sees 300 Potential F-16 Export Sales ‘Opportunity,’” *Breaking Defense*, July 21, 2024, <https://breakingdefense.com/2024/07/lockheed-martin-sees-300-potential-f-16-export-sales-opportunity/>.

¹⁶ Ronald O’Rourke, “Navy Virginia-Class Submarine Program and AUKUS Submarine (Pillar 1) Project: Background and Issues for Congress,” Congressional Research Service, March 28, 2025, https://www.congress.gov/crs_external_products/RL/PDF/RL32418/RL32418.293.pdf; Luke A. Nicastro, “AUKUS Pillar 2 (Advanced Capabilities): Background and Issues for Congress,” Congressional Research Service, May 21, 2024, https://www.congress.gov/crs_external_products/R/PDF/R47599/R47599.4.pdf.

¹⁷ Matthew M. Burke, “First Patriot Missile Facility Outside US Starts Up in Germany,” *Stars and Stripes*, December 2, 2024, <https://www.stripes.com/theaters/europe/2024-12-02/construction-begins-patriot-facility-germany-16032845.html>; Sabine Siebold, “Missile Maker MBDA Says it Has Expertise To Make Patriot Launchers in Germany,” Reuters, September 26, 2025, <https://www.reuters.com/business/aerospace-defense/missile-maker-mbda-says-it-has-expertise-make-patriot-launchers-germany-2025-09-26/>; Seth Robson, “US, Australia Team Up With Lockheed Martin to Build Missiles Down Under,” *Stars and Stripes*, October 14, 2025, https://www.stripes.com/theaters/asia_pacific/2025-10-14/guided-missiles-australia-lockheed-martin-19421324.html; Unshin Lee Harpley, “Japan to Start Making AMRAAMs and Export PAC-3 Missiles,” *Air and Space Forces Magazine*, July 29, 2024, <https://www.airandspaceforces.com/japan-steps-up-missile-production-in-deal-with-u-s/>.

¹⁸ Timothy W. Martin, “At the World’s Largest Shipyard, U.S. Courts an Ally to Face Up to China,” *Wall Street Journal*, September 23, 2024, <https://www.wsj.com/world/asia/us-south-korea-shipyard-china-30aa2b11>;

and should strike a deal with Ukraine to procure significant quantities of combat-proven drones and anti-drone defenses, or help set up new production facilities, either in Ukraine, NATO's European member nations, or even in the United States itself.¹⁹

Right now, however, the Trump administration appears determined to alienate and antagonize America's long-time allies and partners around the world. Trump launched trade wars with America's allies in Europe and the Pacific for no good reason and imposed tariffs on inputs like aluminum and steel that will make only American defense manufacturing more expensive,²⁰ while his draconian immigration policies led to a humiliating raid on advanced manufacturing plants being built by Korean companies in the United States that, among other things, deeply damaged America's image among ordinary Koreans.²¹

Moreover, Trump's threats to the sovereignty of American allies Canada and Denmark and his apparent eagerness to appease Russian President Vladimir Putin have led to severe questions about America's reliability as an ally. As a result, a number of American allies have curtailed, cancelled, or forgone purchases of American weapons like the F-35 fighter and Patriot surface-to-air missile — reducing potential economies of scale for these systems in the process.²²

- **Reform defense procurement regulations.** At the same time, the Pentagon can and should reform the way it buys arms and ammunition. Such reforms—many of

Sam Lagrone, "Naval Shipbuilder HII Signs Agreement with South Korean Shipyard Hyundai Heavy Industries," *USNI News*, April 7, 2025, <https://news.usni.org/2025/04/07/naval-shipbuilder-hii-signs-agreement-with-south-korean-shipyard-hyundai-heavy-industries>.

¹⁹ Howard Altman, "Ukraine Deep in Talks To Sell U.S. Millions Of Drones," *The War Zone*, October 2, 2025, <https://www.twz.com/news-features/ukraine-deep-in-talks-to-sell-u-s-millions-of-drones>; Tamar Jacoby, "Downing Russian Drones: 'The U.S. and Europe Should Learn From Us,'" *Washington Monthly*, September 18, 2025.

²⁰ Shannon K. O'Neil, "The New Supply Chain Insecurity," *Foreign Affairs*, November/December 2025, <https://www.foreignaffairs.com/united-states/new-supply-chain-insecurity-shannon-oneil>.

²¹ Choe Sang-Hun, "'America is Not a Safe Place to Work': Koreans Describe Georgia Raid," *New York Times*, September 24, 2025, <https://www.nytimes.com/2025/09/24/world/asia/south-korea-georgia-hyundai-ice-raid.html>.

²² Murray Brewster, "Canada Reconsidering F-35 Purchase Amid Tensions With Washington, Says Minister," *CBC*, March 14, 2025, <https://www.cbc.ca/news/politics/f35-blair-trump-1.7484477>; "Spain rules out buying F-35, choosing between Eurofighter and FCAS," *Reuters*, August 6, 2025, <https://www.reuters.com/business/aerospace-defense/spain-rules-out-buying-f-35-choosing-between-eurofighter-or-fcas-2025-08-06/>; Laura Kayali, "Portugal Wobbles on Buying F-35s Because of Trump," *Politico*, March 14, 2025, <https://www.politico.eu/article/portugal-rules-out-buying-f-35s-because-of-trump/>; Tim Martin, "Denmark picks Europe's SAMP/T for long-range air defense, shuns Patriot," *Breaking Defense*, September 15, 2025, <https://breakingdefense.com/2025/09/denmark-picks-europes-samp-t-for-long-range-air-defense-shuns-patriot/>.

which have already been proposed by members of Congress on both sides of the aisle — will not solve problems created by inadequate and sporadic demand, but done properly, they can make it easier for the Department of Defense to procure the weapons and ammunition it needs. Done poorly, however, changes to Pentagon procurement could leave America’s defense industry worse off and replace old problems with new ones.

Procurement reform is a much-needed tool to get capabilities into the hands of the servicemembers at the speed required in a modern war — a process seen on the battlefields of Ukraine. But any procurement reforms should be structured so as not to tilt the playing field in favor of either traditional defense companies — the so-called “primes” — or new entrants, either explicitly or implicitly. The House Armed Services Committee’s SPEED Act largely strikes this balance while cutting the steps and reducing the time from the identification of a requirement to the execution of a program.²³ By contrast, the provisions included from the Senate’s FORGED Act would grant regulatory exemptions and other benefits to “non-traditional” defense companies like Palantir, Andruil, and SpaceX — giving them a potential competitive edge over traditional defense firms still bound by existing procurement rules and regulations.²⁴

More specifically, provisions such as Title XVIII Subtitle C of the 2026 NDAA require the Pentagon to prioritize purchasing commercial products before moving to defense-unique development. This provision essentially tilts the acquisition playing field in favor of the non-traditional model popularized by Andruil, where a company privately funds research and development and then sells finished products to the Department of Defense, and against the traditional prime contractors.

In addition, the Pentagon faces a “color of money” problem that prevents programs from spending money more efficiently. If a particular weapons program has money left over from, say, basic research, it cannot use that money on other aspects of the program, like development or acquisition, unless it goes through a laborious and lengthy “reprogramming” process involving the defense committees of both houses of Congress.²⁵

²³ “The Need for SPEED: Streamlining Procurement for Effective Execution and Delivery Act,” House Armed Services Committee, https://armedservices.house.gov/uploadedfiles/speed_act_overview.pdf, p. 6-7.

²⁴ Madeleine Field, “The SPEED and FoRGED Acts Compared,” *War on the Rocks*, July 1, 2025, <https://warontherocks.com/2025/07/the-speed-and-forged-acts-compared/>.

²⁵ Pete Modigliani and Matt MacGregor, “DoD Needs Fewer Colors of Money,” *Defense Tech and Acquisition*, September 21, 2023, <https://defenseacquisition.substack.com/p/dod-needs-fewer-colors-of-money>.

In the Research, Development, Test, and Evaluation (RDT&E) category alone, for instance, there are eight further sub-categories. And as a program moves forward in its development lifecycle, it must follow the multiyear plan laid out at its start. If costs increase for any reason — say, inflation or increases in input costs due to tariffs — the program must go to the reprogramming process. Even if the program saves money, it must also go back to the reprogramming process to use these savings on other parts of the project.

Reducing the overall categories involved — fewer “colors of money” — is one approach to managing this problem, and in particular “aligning funding for a program and program office to a single color of money” as DARPA, NASA, and other federal research and development agencies already do. Another possible approach would base RDT&E categories on programs themselves instead of programmatic categories, making it much easier to move money around within the program while still maintaining the accountability that the categories were initially meant to ensure.²⁶

Finally, Congress can change the way it oversees defense procurement in an effort to shift the prevailing acquisition culture in the Pentagon. Right now, Congress encourages the Pentagon to be cautious rather than risk-taking when it comes to acquisition and procurement. But Congress can foster greater risk-taking by focusing more on criminal abuses and misuses in defense procurement rather than on simple cost overruns or risks that fail to pan out. That entails accepting a certain amount of “waste” and inefficiency, but as things stand, the Pentagon already loses more than enough time and money due to excessive caution and red tape.

Taken together, these ideas represent a good starting point for rebuilding the arsenal of democracy — a framework for action rather than a detailed, step-by-step blueprint. There’s no panacea for the problems the American defense industry confronts, no one simple trick or hyped technology that can solve the issues that have plagued the industry and the Department of Defense for decades now. But by sending stronger and more consistent demand signals, working with allies and partners, and reforming acquisition rules, Congress and the Pentagon can renew America’s defense industry and fashion a 21st-century arsenal of democracy.

²⁶ Commission on Planning, Programming, Budgeting, and Execution Reform, p. 88-89. In essence, all funding for a particular program like the F-35 — R&D, procurement, personnel costs, etc. — would fall in a single category, allowing the program to use funds left over from R&D to support procurement rather than leaving them to languish.