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Shipbuilding Revitalization Requires Reforms from the Navy, Shipbuilders, and Congress Alike

Wilson Beaver

KEY TAKEAWAYS

Secretary of Defense Pete Hegseth has identified the revitalization of the U.S. Navy as critical to the United States' national security strategy.

China's navy is numerically the largest in the world, with a battle force of more than 370 ships and submarines, which include more than 140 major surface combatants.

China's shipbuilding capacity dwarfs that of the United States, and U.S. policymakers will have to make major reforms if the Navy is to deter China.

The U.S. Navy currently has 296 battle force ships. The Navy's goal is to achieve a fleet of either 355 or 381 manned battle force ships. The goal of a 355-ship Navy became U.S. policy in the fiscal year (FY) 2018 National Defense Authorization Act (NDAA). Significantly, since then, the deadline for achieving those goals has either been undefined or continually pushed beyond 2045—long past the potentially turbulent next decade in U.S.–China relations.

The Navy announced an even higher goal as part of its FY 2025 30-year shipbuilding plan, aiming at a fleet of 381 manned ships and 134 large unmanned surface and underwater vehicles.[1] The Biden Administration did not endorse the force-structure goal, nor did it fund anything akin to a procurement plan to expand the fleet.

The Navy's proposed budget for FY 2025, sent to Congress in March 2025, is not on track to meet this

goal. In fact, it reflects a reduction in the size of the fleet. The proposed budget requests just six new ship orders (instead of the seven for which it had previously planned).

The Navy projects that 10 ships (ordered in previous years) will be delivered to the fleet in FY 2025 and requested retiring 19 existing ships during the same period, including 10 ships that would be retired before reaching the end of their expected service lives. The most recent FY 2025 NDAA sent a negative demand signal to shipbuilders from Congress, keeping the Navy's shipbuilding account effectively flat and canceling funding for key programs like the *Constellation*-class frigate.[2]

The Navy says that retiring ships frees up funding for increased procurement, as the Navy will not have to spend as much on the Operations and Maintenance (O&M) costs necessary to maintain these aging ships. So, the Navy is cutting ships now, with the promise that it will use the funding later to buy more ships. The "divest to invest" fantasy. There is a tendency among Navy planners to project large increases in ship procurement years down the road, while failing to keep up with what is needed in the current year. It is easy to see why. Projecting large increases in shipbuilding orders years down the road means that almost nobody currently in government will still be around when the time comes for these expensive increases in ship orders. It means passing the buck to the next Administration, the next Congress, and a different set of appointees in the Department of the Navy.

The Navy Needs a Bigger Fleet—and Must Overcome These Obstacles

The United States is shifting away from counterinsurgency operations and nation-building, back toward great power competition, because the People's Republic of China is engaged in a massive naval build-up, and because defense of the homeland and American trade requires a strong Navy. This is why a much larger fleet than the current one is necessary.

According to the Department of Defense's 2023 *Military and Security Developments Involving the People's Republic of China* report, the People's Liberation Army Navy (PLAN) is already numerically the largest in the world, with an overall battle force of more than 370 ships and submarines, including more than 140 major surface combatants. China's shipbuilding capacity dwarfs that of the United States, and American policymakers will have to make major investments and major reforms if the U.S. Navy is to deter China from attacking a U.S. ally or the United States itself in the Indo–Pacific.[3]

Delays and Cost Overruns. Almost all Navy shipbuilding is behind schedule, and the shipbuilders are at least partially to blame.[4] The shipbuilders suffer from labor shortages, maintenance backlogs getting in the way of shipbuilding, inconsistent demand signals from the Department of the Navy and Congress, requirement overload from the Navy, and supply-chain issues. Some of these long-standing problems, such as the labor shortage and interrupted supply chain, were exacerbated by the government-imposed COVID-19 lockdowns and restrictions and the record-high inflation of the Biden years.[5]

Most ships currently under construction are delayed. In early 2024, the Navy announced that the first *Columbia*-class ballistic missile submarine built jointly by General Dynamics Electric Boat and Huntington Ingalls Industries (HII) is projected to be 12 months to 16 months late; that the fourth and fifth blocks of the *Virginia*-class submarine by Electric Boat and HII will be 36 months and 24 months late, respectively; that the next aircraft carrier, the *USS Enterprise*, is projected to be 18 months to 26 months late; and that the first-in-class *Constellation*-class frigate being built by Fincantieri Marinette Marine will be completed 36 months behind schedule.

The *Constellation*-Class Frigate. The *Constellation*-class frigate, three years behind schedule, merits special attention as a case study. The ships are being built in Marinette, Wisconsin, by Fincantieri Marinette Marine. The Navy needs frigates, and the program needs to be successful, but thus far it has suffered from both labor shortages (the responsibility of the shipbuilder) and requirement overload (the fault of the Navy). In January 2024, the deputy program manager announced that the shipyard in Marinette was hundreds of workers short of what it needed, which would invariably lead to significant delays.[6]

The shipbuilder's labor shortages are part of the problem, but just as problematic has been the Navy's overloading of requirements for the new ship. The *Constellation*-class frigate was based on an existing design (that of the Italian FREMM frigate[7]), a decision that was supposed to make the frigate cheaper and speed up construction. Unfortunately, the Navy introduced a long list of additional design requirements that have made this first-in-class, for all intents and purposes, an entirely new ship.[8] To make matters worse, the Navy allowed construction to begin before it had finished the design, a mistake that caused delays and cost overruns as the shipbuilder has to continuously make adjustments as new requirements are added to the final design, including significant weight growth that may have negative consequences for the ship's overall functionality.

In summary, according to a report by the Government Accountability Office:

> The Navy's decision to approve construction with incomplete elements of the ship design—including information gaps related to structural, piping, ventilation, and other systems—and the underestimation of adapting a foreign design to meet navy requirements have driven this weight growth.... Resolving this weight growth adds another dimension to the shipbuilder's ongoing design activities, further diminishing the predictability of these already schedule-challenged efforts.[9]

Labor Shortages. Labor costs have increased significantly in recent years, in large part due to inflation. This has made it difficult for the shipyards to hire and keep welders, who can earn the same or more salary at much easier jobs. This is especially true at shipyards in states with higher minimum wages and a higher cost of living like Connecticut and Virginia. Wages for touch labor categories at these shipyards (welders, pipefitters, etc.) are going to need to increase substantially, and be at least higher than unskilled labor jobs like cashiers.

To their credit, some of the shipbuilders cover costs for prospective welders to get certified at technical colleges, with an essentially guaranteed job at the shipyard upon completion of the welding program. During the program, the apprentices receive a base salary. An example of this is the Norfolk Naval Shipyard Apprenticeship Program, conducted locally in partnership with Tidewater Community College.[10]

Shipbuilders will need to increase wages to remain competitive. Some of this they should do on their own, especially once incentivized by increased orders from the Department of the Navy and Congress. Additionally, government policymakers should strongly consider federal measures to help alleviate the labor shortage, including the new Navy accounting proposal called the Shipyard Accountability and Workforce Support (SAWS) initiative. If implemented, SAWS could go some way toward alleviating the labor problems in the submarine industrial base.[11]

Federal Investments in Infrastructure and Labor. To its credit, Congress has attempted to alleviate some of the problems at shipyards through the Shipyard Infrastructure Optimization Program (SIOP), additional infrastructure improvement funding meant to expand capacity. Having funded these initiatives, many in Congress are wondering what positive effects federal investments like SIOP have had on infrastructure capacity at shipyards, as the additional improvements do not yet seem to have had

an effect at reducing cost overruns and delays. SIOP too has seen massive cost increases and delays itself. If SAWS moves ahead, Congress and the Navy will likewise want to see dramatic improvements to the labor shortage demonstrated by the shipbuilders as well.

Demand Signal. It is true that there are significant limitations in capacity at shipyards for shipbuilding, but these problems are unlikely to ever be fixed if ship orders are simply maintained at the current level (as they were in the FY 2025 budget request) or made worse if reduced.

For FY 2025, first the Biden Administration (through the President's defense budget request) and then House Defense Appropriations Committee argued that the defense industrial base could not handle more than one submarine order, and that it therefore did not make sense to fund a second submarine. The Chairman of the House Defense Appropriations Committee argued that "the reason this bill doesn't fund a second submarine is very simple—the contractors cannot build it. There are significant problems with the Submarine Industrial Base that cannot be resolved with symbolic money."

However, the defense industrial base will not expand if there is no demand signal to do so. Cutting submarine orders from the two planned per year down to one sends a negative demand signal to industry and disincentivizes industry from investing long-term in labor and infrastructure. If industry thinks it will only need to build one submarine per year, it is not going to invest in the additional welders and capacity it needs to build two submarines per year.[12]

Recommendations for the Navy, Shipbuilders, and Congress

Industry experts, think tanks, and agencies like the Congressional Research Service and Government Accountability Office have made many recommendations over the years for how the shipbuilding industry could be reformed, but few of them have been implemented. Even if they had: The proposed reforms have never been sweeping enough to generate real revitalization.[13] The Trump Administration now has the opportunity to attempt an all-of-government approach, through coordination with Congress and with industry, to pass reforms, such as the following, and truly revitalize the shipbuilding industry and rebuild the fleet.

The Navy. To expand its fleet, the Navy should:

- **Not cut procurement.** If budget cuts are necessary, the Navy should cut something other than procurement. Too often, when faced with

budget constraints, the Navy (or Congress, or both) cut procurement first, or cut one procurement program to fund another. Instead, the priority must be to build new warships, with other categories of spending, such as research and development (R&D), a secondary priority.

- **Request ships sooner, not years down the road.** The Navy must not kick the can down the road, hoping that the problem will fix itself. If the Navy is to be revitalized and ready to deter China in the Indo–Pacific, bigger ship orders need to come now.

- **Stop requirement overload.** The Navy should minimize new technological requirements for first-in-class ships. It must not allow shipbuilding to begin until the final design has been certified, and it must institute a presumption of denial for design requirements requests that come after final design certification.

- **Continue maintenance abroad.** One thing the Navy is doing right is expanding its ability to conduct maintenance, repair, and overhaul (MRO) on ships in allied countries, a development that will help to reduce the maintenance backlog in the United States (which in some cases, especially with nuclear submarines, contributes to the shipbuilding backlog as well). One of the most important aspects of the Australia–United Kingdom–United States (AUKUS) partnership will be the ability of the Navy to conduct in-theater maintenance MRO on *Virginia*-class nuclear submarines in Western Australia. At the same time, the Navy is in talks with Japan on conducting major repairs on U.S. ships at Japanese shipyards. Both of these are positive developments that need to be sped up and expanded.

- **Open a fifth public shipyard.** The four existing public shipyards are not sufficient to meet the shipbuilding and maintenance needs of the Navy, and a fifth public shipyard is needed. It will need to be placed in a region far away enough from the existing shipyards to have a separate labor pool to draw from, ideally in a state with business-friendly regulations.[14]

- **Not hide problems from Congress.** In fall 2024, Secretary of the Navy Carlos Del Toro cost the Navy much trust in Congress when the Congressional Appropriations Committee discovered that the Navy had failed to disclose how far over budget it was on the *Virginia*-class

submarine program. The Navy needs Congress to fund its shipbuilding programs and needs to be open about problems and delays in a timely manner. A new relationship needs to be forged between the Navy and key Members of Congress—this is a task that only the next Secretary of the Navy, along with the senior-most Navy Admirals, can accomplish.

- **Just build ships.** The Department of Defense chose to award Deloitte Consulting an incredible $2.4 billion contract to expand the submarine industrial base's workforce and charges Deloitte with delivering "systemic, holistic solutions to regional and broader submarine industrial workforce and industrial base challenges."[15] Deloitte is neither a shipbuilder nor does it have experience in shipbuilding, and it is doubtful that it will meaningfully contribute to solving the problem. Even if it were able to, $2.4 billion is an outrageous amount to award to a consulting firm that does not bend steel or hire welders. This money would have been better spent on a second submarine or addressing cost growth.[16]

The Shipbuilders. To revitalize their operations, shipbuilders should:

- **Invest in labor and infrastructure.** Shipbuilders need to be more worried about being over time and over budget. Once shipbuilders see the long-term demand signal from the government, they need to hire more welders, pay welders more, invest in expanded capacity, and do whatever it takes to deliver the product they are being paid for on time. If they do not, Congress and the Navy must find ways to take the shipbuilders to task for failing to deliver.

- **Demonstrate to Congress and the Navy that labor and infrastructure are invested.** The shipbuilders would do well to clearly demonstrate to both Congress and the Navy reductions in cost overruns and delays as a result of government investments in shipyard infrastructure (SIOP) and labor (potentially, SAWS). Regarding submarine construction and AUKUS, a clear return needs to be shown that investment from ally Australia and shipbuilders capital investments made possible by congressional monies is having a measurable impact on build rate.

Congress. To reform the American shipbuilding industry and support the Navy, Congress should:

- **Stop cutting procurement and send a consistent, long-term demand signal.** At a certain point, one just needs to order more ships. Inconsistent demand signals from the U.S. government makes it hard for shipbuilders to invest long term in labor and infrastructure. The Navy says that it wants to dramatically expand shipbuilding and reach a much bigger Navy while cutting shipbuilding for FY 2025. Congress should explore the option of passing a Naval Act that authorizes and appropriates funding for stable design and in-construction warships at planned numbers.[17]

- **Consider penalties for ships delivered late.** Some foreign governments penalize shipbuilders for delivering ships behind schedule, adding a massive incentive for shipbuilders to invest in the labor and infrastructure to deliver ships on time. This reform would only work, however, if the Department of the Navy tackles the requirement overload problem concurrently.

- **Consider block buys of ships.** Instead of haggling over a handful of new ships each year, Congress could send a strong demand signal that would be transformational over the rest of this decade both for shipbuilding and for the size and strength of the U.S. Navy by undertaking a one-time block buy of ships. The money would be allocated all at once but spread over the next several years, giving shipbuilders the long-term demand signal for the funding they need to invest in labor and infrastructure. If Congress considers a defense reconciliation bill, it should strongly consider including this block buy of ships.

- **Consider congressional additions for procurement, not just RDT&E.** Congress will often say that the money for additional ships is not there. This is a hard pill to swallow when considering some of the things it chooses to fund instead.[18] Each NDAA cycle, the additions on the appropriations tend to focus on Research, Development, Testing, and Evaluation (RDT&E), with billions added for RDT&E and procurement often being cut. If Congress is interested in revitalizing the defense industrial base, Members will need to fund ship orders in the procurement bucket.

Conclusion

The reforms proposed here are not the only ones that could support the ailing shipbuilding industry, but, taken together, they could go a long way

toward addressing the problems plaguing this defense sector so vital to national security. There are high hopes for revitalizing shipbuilding in 2025, and policymakers should remember that reforms are needed not in just one sector of the shipbuilding enterprise, but across the board. The Navy, the shipbuilders, and Congress each need to implement significant changes to make the critically needed revitalization of the American shipbuilding industry and the fleet a reality.

Wilson Beaver is Senior Policy Advisor for Defense Budgeting in the Douglas and Sarah Allison Center for National Security at The Heritage Foundation.

Endnotes

1. Congressional Research Service, "Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress," September 24, 2024, https://sgp.fas.org/crs/weapons/RL32665.pdf (accessed March 8, 2025).
2. Ibid.
3. U.S. Department of Defense, *Military and Security Developments Involving the People's Republic of China*, 2023, https://media.defense.gov/2023/Oct/19/2003323409/-1/-1/1/2023-MILITARY-AND-SECURITY-DEVELOPMENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA.PDF (accessed March 8, 2025).
4. Steve Cohen, "Almost All Navy Shipbuilding Is Hopelessly Behind Schedule," *The Hill*, May 2, 2024, https://thehill.com/opinion/national-security/4624326-almost-all-navy-shipbuilding-is-hopelessly-behind-schedule-as-war-looms/ (accessed March 8, 2025).
5. Congressional Research Service, "Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress."
6. Megan Eckstein, "Frigate Program Delayed as Shipyard Is a 'Few Hundred' Workers Short," *Defense News*, January 11, 2024, https://www.defensenews.com/naval/2024/01/11/frigate-program-delayed-as-shipyard-is-a-few-hundred-workers-short/ (accessed March 8, 2025).
7. FREMM stands for *Fregata Europea Multi-Missione* (European Multi-Mission Frigate).
8. Mallory Shelbourne and Sam Lagrone, "Constellation Frigate 'Unplanned Weight Growth' Could Limit Service Life, Says GAO," *USNI News*, May 29, 2024, https://news.usni.org/2024/05/29/constellation-frigate-unplanned-weight-growth-could-limit-service-life-says-gao (accessed March 8, 2025).
9. U.S. Government Accountability Office, "Navy Frigate: Unstable Design Has Stalled Construction and Compromised Delivery Schedules," GAO-24-106546, May 2024, https://s3.documentcloud.org/documents/24700152/gao-24-106546.pdf (accessed March 8, 2025).
10. Naval Sea Systems Command, "Norfolk Naval Shipyard Apprenticeship Program," https://www.navsea.navy.mil/Home/Shipyards/Norfolk/Careers/Apprentice-Program/ (accessed March 10, 2025).
11. Sam Lagrone, "New Navy Sub Funding Proposal to Combat Growth in Labor Costs Raises Questions in Congress," White House," *USNI News*, September 13, 2024, https://news.usni.org/2024/09/13/new-navy-sub-funding-proposal-to-combat-growth-in-labor-costs-raises-questions-in-congress-white-house (accessed March 8, 2025).
12. Wilson Beaver, "We're All living…with One Less Submarine," Heritage Foundation *Commentary*, July 22, 2024, https://www.heritage.org/defense/commentary/were-all-living-one-less-submarine.
13. Brent D. Sadler, "Rebuilding America's Military: The United States Navy," Heritage Foundation *Special Report* No. 242, February 18, 2021, https://www.heritage.org/defense/report/rebuilding-americas-military-the-united-states-navy.
14. Brent D. Sadler, "Foundational Improvements for Better U.S. Navy Shipbuilding," Heritage Foundation *Backgrounder* No. 3609, April 13, 2021, https://www.heritage.org/defense/report/foundational-improvements-better-us-navy-shipbuilding.
15. Nick Wilson, "Deloitte Consulting Awarded $2.4 Billion to Orchestrate Submarine Production Revival," Inside Defense, March 11, 2025, https://insidedefense.com/daily-news/deloitte-consulting-awarded-24-billion-orchestrate-submarine-production-revival (accessed March 11, 2025).
16. Brent D. Sadler, "The Department of Defense's $2.4 Billion 'Submarine' Mistake," Heritage Foundation *Commentary*, September 13, 2024, https://www.heritage.org/defense/commentary/the-department-defenses-24-billion-submarine-mistake.
17. Brent D. Sadler, "A Modern Naval Act to Meet the Surging China Threat," Heritage Foundation *Backgrounder* No. 3732, October 24, 2022, https://www.heritage.org/defense/report/modern-naval-act-meet-the-surging-china-threat.
18. Wilson Beaver, Robert Peters, John Venable, and James DiPane, "Prioritizing Procurement over Research and Development," Heritage Foundation *Backgrounder* No. 3804, January 10, 2024, https://www.heritage.org/defense/report/prioritizing-procurement-over-research-and-development.