



BEFORE THE
UNITED STATES HOUSE OF REPRESENTATIVES
HOUSE COMMITTEE ON ARMED SERVICES

State of the Defense Industrial Base

February 8, 2023

Testimony of
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On behalf of the Shipbuilders Council of America (SCA), I would like to thank Chairman Rogers, Ranking Member Smith and members of the House Armed Services Committee for the opportunity to provide our perspective on the health of the defense industrial base – particularly the shipyard industrial base.

I am Matthew Paxton, President of the Shipbuilders Council of America, the largest national trade association dedicated to representing the U.S. shipyard industry. The SCA has been in existence in some form since 1920 and currently represents more than 150 companies that own and operate shipyard facilities across the United States and partner companies that comprise the vital supply chain that makes up the nation's shipyard industrial base.

The U.S. shipyard industrial base is a diverse and critical manufacturing sector of our nation's economy. A 2021 study by the U.S. Maritime Administration¹ found that the industry supports more than 390,000 direct and indirect jobs across the United States and contributes \$42.2 billion annually to GDP. Shipyards are engaged in building, maintaining, modernizing and repairing vessels of all sizes for the U.S. Navy, U.S. Coast Guard, U.S. Army, NOAA, the Maritime Administration, local and state government customers and the 40,000 commercial vessels that operate in domestic commerce. Additionally, there is a vast supplier base that provides goods and services that support all facets of the domestic shipyard industrial base.

Over the past several years, there have been several negative impacts on our industry. Despite the COVID-19 Pandemic, supply chain disruptions, historically high inflation impacts and, workforce challenges caused in part by the lack of stable and predictable acquisition plans from our government customers, our industry has weathered these challenges and will continue to support our nation.

Recent statements by senior Navy leaders have stated shortfalls in the industrial base capacity and capability to meet the legally-mandated policy of a 355-ship Navy. As an industry, we believe there is capacity to provide increased output to the Navy, Coast Guard and other customers. We believe the issue is an inefficient use of our current capacity created by an inconsistent demand signal. The single most critical factor in the capacity of the shipbuilding and repair industrial base today is people. From the perspective of those in the industry, the creation of additional shipyards will not create additional capacity but rather dilute the manufacturing workforce among all shipyards and drive up unit costs of labor, unit costs of ships and unit costs of repair and modernization. The most effective mechanism to ensure that the industrial base is stable and resilient is through a consistent upward and adequately funded demand signal and a recognition that the cost of doing business has significantly changed because of the factors identified above.

Let me state up front that the shipyard industrial base has made and will continue to make considerable investments in its workforce to hire and train the next generation of skilled craftsmen and women. In addition, the private shipyard industry has made substantial investments in new capital infrastructure, including dry docks, to meet the demands of the Navy's new construction and ship repair plans. Despite industry's proven willingness to invest in their people and facilities to meet the Navy's stated demand, the shipyard industry has been challenged with volatile fleet mix numbers and projected ship repair workloads including truncated or significantly delayed construction programs and canceled maintenance periods leaving the industry with unfilled facilities, underutilized strategic assets and an under-employed

¹ <https://www.maritime.dot.gov/sites/marad.dot.gov/files/2021-06/Economic%20Contributions%20of%20U.S.%20Shipbuilding%20and%20Repairing%20Industry.pdf>

workforce. Private shipyards require a predictable workload and a volume of work to support the recapitalization of equipment, keep rates low and train a sustainable workforce.

The U.S. new construction and repair shipyards that provide American jobs with direct economic impact in every Congressional district in the Nation will meet any demand signal that is clear, consistent and predictable. An unpredictable budget and acquisition environment with repeated shifts in fleet size and mix and funding delays make CAPEX and facility investment decisions more difficult for shipyards. Moreover, once the people are lost as production lines are stopped and started, they are more and more difficult to replace. Regardless, the private shipyard industry and the associated critical supply chain remain committed partners in building, maintaining and modernizing the most capable and advanced Navy for the Nation and our dedicated servicemen and women.

COVID-19

Though the COVID-19 pandemic greatly impacted the shipyard industry, I am proud to report that as a designated “Critical Infrastructure Industry,” your American shipyards never shut down and shipyard employees cut steel to build, repair, maintain and modernize our ships throughout the pandemic. Pre-pandemic, the U.S. shipyard industry prided itself on our culture of safety, and that served our industry particularly well in adjusting rapidly to meet the unique problems and demands of the pandemic. Our industry was able to adjust quickly to keep the workforce safe and healthy. Shipyards immediately implemented plans and procedures to stagger shift changes, spread out the workforce, clean and disinfect work spaces, routinely test employees and quickly quarantine individuals who tested positive and perform contact tracing and notification.

The COVID-19 pandemic impacted the U.S. shipyard industry by introducing additional costs and delays related to production, workforce and our critical supply chains and there is uncertainty as to how those delays and costs will ultimately be addressed by the government customers. While certain programs have been authorized to give DoD the flexibility to adjust contracts to help industry absorb costs incurred because of the pandemic, those programs have either not been funded or those authorities have not been exercised to provide industry relief.

Inflation Impacts & Supply Chain Challenges

Unprecedented and systemic supply chain and other economic disruptions, including record levels of inflation, are contributing to extremely challenging circumstances for the shipyard industrial base.

Many contracts in the shipyard industrial base were negotiated with expectations of only 2 to 3 percent inflation and with properly functioning global and domestic supply chains. Inflation is still elevated at 6.5% and with lingering issues in the supply chain, companies are now faced with possible schedule delays, less output, and cost increases. Those who have entered into firm-fixed-price contracts (FFPs) are even more susceptible to the changing dynamics of today’s economic environment. Unfortunately, in most cases, the services have expected the private shipyard industry to absorb the delta in costs.

Analysis from the Center for Strategic and International Studies (CSIS)² shows that small and medium contractors tend to engage in more firm-fixed-price (FFP) contracting, which is a common contracting method for less risky acquisitions. However, FFP contracting has occurred across all levels of industry

² <https://www.csis.org/analysis/inflating-risk-contracting-face-inflation>

and each contract must be reviewed to understand and mitigate the impacts. Because FFP contracts are more vulnerable to inflation-driven price increases, firms with fewer resources will bear the brunt of inflation as they work to deliver on government contracts.

A 2018 report assessing the U.S. manufacturing and defense industrial base and supply chain found that since 2000, the defense industrial base has lost more than 20,500 manufacturing firms across all industries and that the shipbuilding and repair³ manufacturing component was one of the hardest hit in that time period. It would be reasonable to conclude that the pandemic and follow-on challenges to these market conditions have caused additional companies to exit the industrial base.

The impact that these market pressures have on the shipyard industrial base are significant and it is concerning that we often hear senior leaders in the Navy only refer to challenges in the “seven shipyards⁴” when in fact, the Navy depends on a much more dispersed industrial base to meet its goals in new construction, modernization and repair.

According to recent industry studies⁵ from the National Defense Industrial Association (NDIA), “FY2021 and FY2022 outlays are experiencing \$50 billion in lost purchasing power... [and] if left unfunded, this loss will appear as reduced quantities and maintenance backlogs or cost overruns and schedule delays.” Overall, this reduced purchasing power is reflected in the cost of materials, labor and other capital investments required by the industrial base.

Workforce

U.S. shipyards and shipyard suppliers pride themselves on implementing state-of-the-art training and apprenticeship programs to develop skilled craftsmen and women that can cut, weld, bend, build, and repair first of kind vessels and technologically advanced ships. However, the shipyard industry, like so many other manufacturing sectors, faces an aging and retiring workforce.

Our industry has continued to look at best practices for attracting the next-generation workforce by highlighting the opportunities to learn high-skilled labor and the corresponding wages that can be earned without a four-year degree. Our shipyards work with regional partners to establish the curriculum needed for apprenticeship and vocational education at community colleges and local technical schools.

Additionally, SCA recently became an official facilitator of the Northeast Talent Pipeline Project, a program funded by NAVSEA, PEO Attack Submarines and PEO Strategic Submarines to support employers as they recapitalize their workforce through recruiting, hiring, training and retaining a skilled workforce. We also work closely with the Navy’s Shipbuilding Industrial Base Task Force to share information with industry on federal grants and opportunities that are available to support workforce development programs in shipyards and private companies.

³ Assessing and Strengthening the Manufacturing and Defense Industrial Base and Supply Chain Resiliency of the United States, Interagency Task Force in Fulfillment of E.O. 13806, September 2018

⁴ <https://news.usni.org/2023/01/10/cno-gilday-to-shipbuilders-pick-up-the-pace>

⁵ <https://www.ndia.org/about/press/press-releases/2022/9/13/ndia-inflation-paper>

We appreciate this committee's efforts to address workforce challenges through language in the FY23 NDAA and encourage the Congress to look at opportunities to incentivize investment in vocational training and development of these critical, skilled workers. This not only supports the requirements needed for our military customers but also supports additional needs and opportunities in new commercial markets such as offshore renewable energy.

Providing Market Stability

To grow and develop the next generation of shipyard workers, U.S. shipyards require market stability across sectors so that companies can make the required investment in their people and facilities to meet demand.

In the FY2018 NDAA, the Congress made it the policy of the United States to maintain a Navy Force Structure of 355-ships- a result of the 2016 Force Structure Assessment (FSA). Since then, the Navy has provided a moving target as to how that policy was to be achieved⁶:

- said the 355-level goal included only manned ships,
- said that the goal may include a mix of unmanned and manned ships,
- delayed the updated force structure goal in 2019,
- indicated that future force-level goals after 2019 would introduce generational changes in fleet architecture, including to basic ships the Navy uses to support its force,
- released a different force structure goal in December 2020,
- released a long-range maintenance document in June 2021 that was different from the projections six-months prior,
- released a 30-year shipbuilding plan with three different options for the future force structure,
- released the latest CNO Navigation Plan in July 2022 which stated different goals in certain ship programs compared to the 30-year shipbuilding plan released in April 2022.

These are examples of mixed messages provided to industry over the last five years. SCA does not advocate for one program or ship class over another so I am not here to advocate for one proposed plan compared to another. What I can tell you is that this inconsistency from our largest government customer hurts the ability of our industry to make critical investments in our workforce and facilities. While as an industry we pride ourselves on our ability to meet the needs of our customers and shift to incorporate new technologies and processes into our work, the industry is not a light switch that can be flipped on and off without our people and facilities needing to make major adjustments.

Recently, that this lack of predictability and stability from the customer coincided with a time when volatile market conditions, including a global pandemic, and generational inflation, supply chain and workforce challenges, have limited the resources on which our industry can call to respond to these customer demands.

SCA would encourage the Congress to continue to support stable, realistic and predictable budgets for the U.S. Navy and Coast Guard and we appreciate the work this committee has done to add authorities and dollars to critical accounts to see these goals realized. While we recognize it is hard to accurately forecast needs 30 years into the future, there must at least be stability and fidelity in the FYDP and the

⁶ <https://crsreports.congress.gov/product/pdf/RL/RL32665>

10-year horizon otherwise there will be significant disruption to the industrial base. Additionally, we encourage this committee and the Congress to continue to hold the services to account through effective oversight.

The CNO's 2022 Navigation Plan would see the fleet grow to more than 500 manned and unmanned vessels, up from today's 296 ships. According to the CRS, to achieve such numbers, the Navy will require a "3-5% sustained budget growth above actual inflation." Simultaneously, the United States Coast Guard is undertaking efforts to recapitalize essential national security assets such as the Polar Security Cutter (PSC), Offshore Patrol Cutters (OPC), and the Waterways Commerce Cutters (WCC) that ensure the safe navigation of inland marine transportation. To meet the demands of these recapitalization plans would require significant and sustained investment by the Congress, the Navy, the Coast Guard and industry in order to work together to meet the requirements of the future fleet.

The needed increase in shipbuilding and ship repair budgets to meet the needs of the Navy and Coast Guard will require U.S. shipyards to expand their workforces and improve their infrastructure in order to meet the demand for vessels – a requirement our Nation's shipyards are eager to meet. But first, to build and maintain these ships in as timely and affordable a manner as possible, stable and robust funding is necessary to sustain those industrial capabilities which support Navy and Coast Guard shipbuilding and repair.

To meet these goals, Congress can authorize the use of acquisition strategies that enhance cost reduction rather than requiring the entire procurement cost of a ship to be funded in one fiscal year. Authorizing alternative funding approaches such as advanced procurement, incremental funding and block buy contracting could increase stability in Navy and Coast Guard shipbuilding plans and increase the number of ships that could be built for the same amount of procurement funding.

Through the use of advanced procurement in shipbuilding, Congress can define the full cost of a ship in an initial appropriations act but defer some of the appropriation to future years. For the shipbuilding industry and the supplier base, this creates an early financial commitment that enhances job security and encourages capital investment. Additionally, advance procurement can reduce the total construction cost of a ship through improved sequencing or year-to-year balancing of shipyard construction work and the purchase of batch items that can be manufactured in an efficient and economic manner.

Authorization of incremental funding, where cost is divided into two or more annual portions, allows for expensive items, such as large Navy ships, to be procured in a given year while avoiding or mitigating budget "spikes" and major fluctuations in year-to-year budget totals. While this authorization also requires appropriations support, industry believes that incremental funding would also allow construction to start on a larger number of ships in a given year so as to achieve better production economies. And an added benefit often not considered is a reduction in the amount of unobligated balances associated with DoD procurement programs.

Industry appreciates the block buys authorized in the FY23 NDAA. Block buy contracting permits the Department of Defense to use a single contract for more than one year's worth of procurement of a given kind of ship without having to exercise contract options for each year after the first year. Purchasing ships through block buy contracting enables shipyards to leverage "hot" production lines — those assembling current ships — and streamline the acquisition process for these vessels. The

government should consider taking advantage of “hot” production lines and should review optimizing build “centers” or the pace at which ships are bought, and subsequently built. Additionally, we recommend the Navy provide additional methods to support continual, risk-managed innovation to ensure future relevance, including areas to manage life-cycle costs.

The industry has seen successful acquisition programs leverage the benefits of lead follow yard designs that have benefitted from block buys, advanced procurement and multi-year appropriations.

In addition to funding the construction of Navy and Coast Guard vessels, there must be similar commitments to fund the “tail”, or the maintenance, of the current and new ships entering the fleet to ensure that they remain in commissioned service through their expected life cycle. Much like shipbuilding, ship repair and modernization would benefit from the use of acquisition strategies that promote private sector investment in people and infrastructure, increase the volume of work in existing shipyards and promote the speed of execution to meet the unique challenges of the maintenance and modernization environments. Current strategies appear to reduce the very complex nature of repair and modernization to a commodity rather than appropriately implementing a strategy that optimizes the capacity of industry’s existing workforce and facilities.

It is not possible to get to the legally-mandated fleet size if the services do not adequately budget to maintain the ships that we do have and that are being commissioned over the next few years for the duration of their service lives. SCA applauds the work this committee did to prevent the decommissioning of 24 additional ships in the last President’s budget request. The work the Congress has done to provide more insight into schedule repair and maintenance availabilities, and the recent initiatives such as the extended OPN Pilot program and relaxing upward obligation beyond one year will help provide that insight and stability to industry.

As part of funding the “tail” of maintenance, we’d recommend that the Navy details its approach to managing life-cycle cost and maintainability costs on new ships; specifically, how the designs support more efficient and effective maintainability. Additionally, it is imperative that condition-based maintenance include equipment layout and larger maintenance envelopes.

Supporting the Commercial Market

The domestic commercial market is sustained by the Jones Act, which provides market certainty and stability. This law helps to ensure the existence of a domestic shipbuilding and ship repair industrial base. The Jones Act sustains a domestic market for which carriers, operators and shipyards vigorously compete.

Efforts by this Committee, in its support of the most recent U.S. Coast Guard Authorization Act, provided clarity about the Congressional intent of the application of the Outer Continental Shelf Lands Act (OCSLA) to all aspects of the development of offshore energy, not just production. That language, which was adopted into the full FY21 National Defense Authorization Act (NDAA), resulted in several shipyards confirming orders to construct new vessels to serve the burgeoning offshore wind market.

Other efforts by members of this Committee have also seen the potential benefits of ensuring access to our own domestic energy production. As the United States has become the world’s leader in energy

production, so too should we encourage that our domestically produced natural resources, including LNG, be transported on U.S. vessels under such policies as proposed by Congressman Garamendi's Energizing American Shipbuilding Act. Not only would that help us regain a foothold on the international shipping market where we've ceded ground to heavily subsidized and government-backed shipyards, but there is a direct relationship from the construction of LNG tanker vessels to the recapitalization of our strategic sealift fleets because of the stabilization it would bring to the shipyard supplier base and shipyards generally.

Impact of Foreign Competition in Shipbuilding

I would be remiss if I did not acknowledge a long-standing but significant impact to the shipyard industrial base. Over the last twenty years, with significant government policy and financial assistance, global shipbuilding capacity grew dramatically, particularly in Asia but primarily in China. At its peak shipyards located in Asia had captured 92% of the world commercial shipbuilding market. Despite the recent severe and sustained downturn in the world commercial shipbuilding markets, Asian governments have doubled down on the support of their shipbuilding industries. Policies such as direct government subsidies and government-supported shipbuilding credit pools being used in Asian countries continue to distort the global shipbuilding market.

A recent UN report notes that "in several Asian countries, Governments have taken various initiatives to support the shipbuilding industry. The use of public funds to finance shipbuilding prompted a complaint at WTO against the Republic of Korea in November 2018, on grounds that it may grant subsidies that may have a substantial impact on the price of ships, ship engines and maritime equipment, affecting trade flows in these products. At the same time, the shipbuilding industry in several European countries has called for increased Government support to help achieve the target of zero-emission shipping by 2050 (JOC.com, 2018a, 2018b)"⁷

These countries are investing and financing their shipyard industries because they consider shipbuilding to be an issue of national sovereignty. The Navy, Congress and Administration need to recognize this distortion of the shipbuilding and repair markets as they consider the actions needed to protect and support the U.S. shipyard industrial base and the national security asset the industrial base provides to our national security. The people in our industry are true national security assets that cannot afford to be lost.

Conclusion

In conclusion, the Nation's shipyard industrial base has met all of the challenges they have faced while continuing to serve the national security and economic interests of the Nation. Looking towards the future, we hope that the Congress, and this committee in particular, continues championing the domestic shipyard industry and works with our government customers to provide stability and predictability for the men and women of the U.S. shipyard industrial base.

Thank you again Chairman Rogers and Ranking Member Smith for allowing me to testify alongside such distinguished witnesses today. I look forward to your questions.

⁷ https://unctad.org/system/files/official-document/rmt2019_en.pdf