

Getting Points on the Board:

A Playbook for Near-term Improvements to the Competitiveness of American Shipbuilding Starting with Polar Icebreakers

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Executive Summary

The U.S. is being outcompeted by China in the maritime domain. PRC-based shipyards booked 75% of new commercial orders for ships last year, and China's market-distorting behavior in ports, shipyards, and on the high seas could shape a near-term future where Beijing effectively wields control over seaborne trade as a tool of economic coercion around the world. The US government has an opportunity to revitalize American shipbuilding, and strengthen the global competitiveness of American shipbuilders, through initiatives like ICE Pact, which focuses on the development of polar-capable icebreakers as a test-bed for shipbuilding policy innovation. This report explores the strategic role that government procurement programs can play to help US shipyards to improve their ability to deliver commercial and military vessels at lower costs, higher quality, and faster speeds for both the U.S. government and customers around the world.

Over the past several months, the Wilson Center held a series of engagements with industry leaders, government officials, and other key stakeholders. To enhance the economic viability and competitiveness of US shipyards, starting with icebreakers, we recommend the following executive and legislative actions:

- **ICE Pact Implementation & Governance**: Enshrine ICE Pact in an executive order, appoint a dedicated US ICE Pact Coordinator, and fully fund implementation.
- US National Shipbuilding Strategy: Develop a comprehensive, regularly updated national strategy to optimize US shipbuilding capacity and enable long-term planning.
- FAR Adjustments: Reform federal acquisition to allow more flexible contracting for military shipbuilding, especially first-in-class vessels, and other adjustments.
- Requirements Discipline: Impose performance-based specifications for shipbuilding, reducing excessive design changes and requirements.
- Commercial Advocacy & ITAR Regulations: Direct the Departments of State and Commerce to expand advocacy for US shipyards and relax ITAR rules on certain vessels.
- **Security Procedures & Classification Requirements**: Review security classification requirements for non-sensitive vessels to allow foreign expertise in US shipyards.
- **Financing**: Adjust government funding mechanisms to prioritize shipbuilding-related projects, including modernization of facilities and domestic supply chain expansion.
- **Trade Action:** Lead a multilateral effort to impose trade barriers on Chinese-built ships and equipment, protecting US and allied shipbuilding industries.
- **Defense Production Act Reauthorization:** Secure reauthorization and funding through the Defense Production Act to support the expansion of US shipbuilding capacity.
- Visas: Create a special visa program to attract high-skilled foreign labor for US shipyards, particularly for critical projects.
- **Permitting:** Pass legislation to expedite permitting processes for new shipyards built with federal funding.

Introduction

President Trump has stated <u>publicly</u> and repeatedly, along with his new National Security Advisor Mike Waltz, that the administration plans to resurrect America's <u>maritime power</u>, specifically by revitalizing American shipbuilding. The challenge is formidable. American shipbuilding is tied up in red tape, while hampered by workforce shortfalls and an underresourced industrial base. U.S. seapower rests on a shaky foundation in a world increasingly dominated by China's shipyards and maritime industries.

In addition to its <u>forthcoming request</u> for funding from Congress, the White House may also want to consider near-term achievable wins to make American shipyards more competitive and shore up U.S. shipbuilding capacity. U.S. national and economic security requires a strong shipbuilding sector, if the United States hopes to continue its long history as a global maritime power. The U.S. Navy, Coast Guard, and merchant marine need more ships, faster. But solutions must yield both improved capabilities delivered on-time and on-budget and a strengthened U.S. shipbuilding industrial base. Strengthening U.S. shipbuilding will also yield clear economic benefits for the United States by helping to bring back online an industry capable of exporting large manufactured products (i.e., vessels) into global markets—boosting America's overall industrial capacity and resilience.

The need to revitalize American shipbuilding in the face of PRC overcapacity, along with the lack of U.S. icebreakers, motivated the development of the recent trilateral shipbuilding initiative ICE Pact (a.k.a. the Icebreaker Collaboration Effort). ICE Pact leverages the combined capabilities of the United States, Finland, and Canada to build polar-capable icebreakers in each country's respective shipyards, in the hopes of supplying icebreakers to meet the demand for these vessels from America's allies and partners around the world. To support the implementation of this landmark agreement, the Wilson Center asked every major Finnish, Canadian, and American shipbuilder, "What could the U.S. government do to make your yards (A) more globally competitive in the face of PRC overcapacity in shipbuilding and (B) capable of producing complex military vessels, like icebreakers, at faster speeds and lower costs?"

Using these responses and extensive engagement with government officials around the world, we've developed a set of common-sense reforms the U.S. government could take today to spur the growth of the nation's shipbuilding industry. We note that there are deep-rooted, structural problems in U.S. shipbuilding that cannot be solved overnight; in particular, the workforce challenge will take time and sustained attention. But in certain respects, the U.S. government is creating problems for itself through its bad behavior: acquisition and contracting practices that, coupled with an absence of multiyear funding, create significant headwinds for industry partners.

Why Icebreakers?

For one, America needs more icebreakers now to meet its national security needs in the polar regions. But from a shipbuilding industrial policy perspective, the United States must also learn to export American-built vessels that compete globally on a cost and quality basis. The U.S. government must therefore help American shippards bend the cost curve downward towards competitive parity for vessels that private companies and allied governments want to buy. Today, it is two-to-four times more expensive to build a vessel in America than in leading shipbuilding nations like China, South Korea, and Japan, though it is worth highlighting this sobering disadvantage stems in part from Chinese production subsidies and market distortions. China directly subsidizes its shipyards, and the subsidized Chinese steel that all three leading shipbuilding nations use to build vessels helps keep commercial vessel prices depressed.

State-subsidized competitors create two problems: costly U.S. military acquisition programs (by comparison to peers and adversaries) and a weak U.S. commercial shipbuilding industrial base. In recent years, the National Security Council, Department of the Navy, and other U.S. government agencies led a sustained effort to address the interplay between these two challenges by identifying ways to rebuild the commercial shipbuilding industry, so a sufficiently dense and capable American shipbuilding industrial base can sustain the perennial demands of U.S. military shipbuilding. These efforts identified that high-tech, complex vessel classes capable of providing high-value commercial or military services were an obvious place to start rebuilding American competitiveness in shipbuilding. The alternative was a race to the bottom with China to subsidize the production of lower value commercial ships, for which prices and margins are tied to the freight rates for containers and commodities, at the expense of America's allies in Korea and Japan who currently compete head-to-head with Chinese shipyards in this market segment. Sustained U.S. government focus on the production of vessels like icebreakers, undersea construction vessels, unmanned underwater vehicles, and undersea cable and repair ships remains the clearest route to putting near-term 'pointson-the-board'-meaning an increase in the tonnage of vessels built in the United States and competitively exported abroad.

The Procurement-to-Global Production On-Ramp

Today, the global commercial shipbuilding market is around a \$150B a year business, and nearly 75% of new orders went to shipyards in the PRC in 2024. U.S. shipyards build 0.2% of commercial vessels by tonnage, but the global military shipbuilding market is a comparable \$80B a year business—and, due to domestic build and content requirements, American shipyards book over 40% of this work on an annual basis. That means, by revenue, some of the largest shipbuilders in the world are either based or have facilities in the United States, servicing over \$33B a year in U.S. government demand for U.S. Navy and Coast Guard vessels. Similar to the way foreign military sale processes support demand for American built weapons platforms and fighter jets, ICE Pact envisions using procurement programs—in this case

the Polar Security Cutter or future Arctic Security Cutter program—to help American-based shipyards both meet U.S. government demand and sell vessels abroad. Initial estimates suggest governments around the world, excluding Russia, China, DPRK, and Iran, plan to buy as many as 70-90 icebreakers and ice-capable vessels within the next ten years for operations in both polar regions. If U.S. government demand helps U.S. shipyards specialize in the production of a vessel that other countries want, those yards have an opportunity to compete for international military and commercial orders for dual-purpose ships like icebreakers. If successful, ICE Pact will serve as a model for how government procurement programs for military vessels can act as an important tool of industrial policy to help U.S. shipyards sell vessels to a wider array of customers.

The Role of Government

The table is set for Trump Administration action on shipbuilding and ICE Pact implementation, but to successfully use procurement processes to help shippards book international orders and more efficiently build U.S. military vessels, White House leadership is key, combined with targeted requests to Congress for specific authorities and flexibilities to help American shippards. Based on initial feedback, potential actions include:

Executive Action

ICE Pact Implementation & Governance—The implementation of the ICE Pact arrangement with Finland and Canada is an important test of whether the defense and non-defense sides of the U.S. government can work together to support American shipbuilders. By forcing the Departments of State, Commerce, Defense, Homeland Security and the U.S. Maritime Administration to work together to both remove barriers to the construction of polar icebreakers in the United States, and facilitate the sale of this vessel class abroad, ICE Pact acts as a real whole-of-government case study for how the procurement-to-global production on-ramp could work for a variety of military vessel platforms. To super-charge this work, the Trump Administration should (1) enshrine ICE Pact activity in an executive order that cements the initial Cabinet Memo on ICE Pact implementation issued at the end of the Biden Administration; (2) formally name a Senate-confirmed official at the Department of Homeland Security as the official U.S. government ICE Pact Coordinator and responsible party for implementation; and, (3) seek permanent funding from Congress to fund the implementation of ICE Pact through the FY25 budget process. Funding for the implementation of ICE Pact itself would likely cost less than \$25 million a year to facilitate research and development, shipbuilding market analytics, international outreach on behalf of American shipyards, and staffing for the ICE Pact Coordinator, but this funding is crucial to the initial success of the ICE Pact and the development of a clear on-ramp from U.S. government procurement processes to commercial sales.

U.S. National Shipbuilding Strategy—Over and above the Navy's shipbuilding plans, the nation needs a national strategy that (1) establishes a baseline of existing U.S. shipbuilding capacity, (2) prioritizes in one document how that existing capacity will be used to meet all U.S. government and commercial demand for vessels (including necessary commercial construction for Jones Act-compliant ships) on a year-over-year basis, and (3) sets out a regularly updated plan of action to expand U.S. shipbuilding capacity—with a set prioritization of U.S. government vessels that will be built in new or expanded yards whose expansion the government facilitated through either income statement (i.e. orders) or balance sheet (i.e. financing) supports. Much to the potential chagrin of certain individual service branches, this will force a real accounting of U.S. government work across departments and agencies that prevents cannibalization and improve shipyards' ability to plan for long-term government and non-government demand. This will force the government to think at a corporate, rather than agency or service branch-level, to answer hard resource tradeoff questions like, "How best to use additional marginal yard capacity?" This document should also identify the primary upstream suppliers that service shipyards and those suppliers' capital requirements to meet existing and planned demand. This type of supply chain analysis is essential to shaping any future request to Congress for funds to support the entire shipbuilding industrial base.

Note: To prevent any single agency influencing the outcomes of this strategy, the White House Council of Economic Advisors and the Office of Management and Budget (OMB) should complete and publish this document in coordination with the National Security Council—with plans to update the strategy ever five years. The success of Canada's National Shipbuilding Strategy offers a strong point of comparison, and its impact on the Canadian government's budget process further reinforces the importance of OMB leading this process.

• FAR Adjustments — Federal acquisition regulations often require the government to buy ships from the lowest "responsible and responsive" bidder in a competitive procurement process. That means if an existing U.S. shipyard that can plausibly build a particular vessel submits the lowest bid, they win the contract. The FAR process also has byzantine tie-breaking rules that either steer contracts towards small businesses or trigger literal lot-drawing to decide between equal bids. While the intent of our existing contracting rules is to provide accountability and enable congressional oversight, the result is a government unable to reasonably evaluate and select the best companies to build America's military vessels. The current model also incentivizes bad behavior like the unreasonably low bid that VT Halter Marine first submitted to the U.S. Coast Guard to build the Polar Security Cutter—which VT Halter may have intended to revise upwards after securing the contract. 1 True FAR reform will take time

and sustained attention, but the White House could work with OMB now to set out initial actions to improve military shipbuilding acquisitions immediately:

- First-of-a-class or prototype vessels should be built on cost-plus contracts for the first two hulls, before transitioning to fixed-price contracts.
- The vessel construction manager acquisition model may be a smart choice, and should be given consideration, particularly for non-combatant vessels.
- Flexible negotiating power and the ability to "hard-look" low bids should be granted by OMB, which too often focuses on driving costs down at the expense of quality and assurance. Large contracts (i.e. multi-vessel contracts over \$100m per hull) should be approved by the Secretary of the Navy or Secretary of Homeland Security, and reported to Congress, but OMB pressure too often leads to internal competition.
- Relaxation of domestic content requirements where possible, particularly in upstream supply chains, would help U.S. shipbuilders compete. U.S. shippards should be permitted to leverage international suppliers for commercially available off-the-shelf equipment when that equipment is not available in the U.S. Evaluating the option of allowing shipyards to build certain elements of ships outside the U.S. may be worthwhile, however, the net effect should be to strengthen U.S. shipbuilding.
- Requirements Discipline—U.S. government agencies, particularly during defense-related acquisition processes, allow perfection to be the enemy of the good. As the war in Ukraine and modeling of hot conflicts in the Indo-Pacific have demonstrated, platforms that meet 80% of operators' requirements, but cost significantly less than the full solution, are good investments for the American military. The Polar Security Cutter has experienced cost overruns partly due to changing, and overly specific, requirements, rather than a focus on performance-based specifications. This is but one example of a pervasive problem in vessel procurement: risk-avoidant behavior by government clients that slows down and adds cost for shipbuilders. The U.S. government needs to impose discipline on itself as a buyer of ships, focusing on baseline performance-based specifications and suppressing its appetite for design changes.
- Commercial Advocacy & ITAR Regulations—The explicit mission of the International Trade Administration's Advocacy Center (the Center) at the U.S. Department of Commerce is to help U.S. companies win foreign government contracts around the world. The Center is highly effective at this mission for traditionally exported defense products like aircraft and weapons platforms, but it should be explicitly directed through an executive order to build-out a shipbuilding-focused advocacy team. This advocacy team would work with the U.S. Navy, Maritime Administration, Coast Guard, and NOAA to identify military, scientific, or commercial vessels that American shipyards produce for the U.S. government where subsequent

models could be exported abroad, similar to the Department's existing efforts to support the sale of aviation assets. This effort will also require support from the Departments of Defense and State's foreign military sales programs, as well as the relaxation of International Traffic in Arms Regulations (ITAR) that control the manufacture, sale, and distribution of warships or other combatant vessels under Category VI of the U.S. Munitions List. Today, most of the ships purchased by the U.S. government from American shipyards count as warships under ITAR. The National Security Council should convene the Departments of Defense, State, and Commerce to identify vessels classes that should be partially or fully exempt from these regulations going forward. In the case of vessels like icebreakers, the hull technology used on our own vessels is inferior to international alternatives, and even in instances where our warships may exceed the quality of a peer navy, these security considerations should be weighed against the national security benefit of a healthier U.S. shipbuilding industrial base. ITAR adjustments in certain instances may require statutory adjustments, in addition to amendments to regulation.

- Security Procedures and Classification Requirements Today, foreign nationals cannot work in most U.S. shipyards building military vessels. ITAR restrictions also hamper the ability of foreign companies with U.S. subsidiaries to leverage their full expertise, shutting down communications and delaying helpful consultations. Whether Finnish or Canadian, a combination of (1) security classification requirements and (2) ITAR regulations on unclassified "export-controlled information" limits shipyards from bringing in best-in-class engineering, design, or execution support from abroad. In addition to moving ahead with the ITAR exemption process for icebreakers and other similar vessels, the U.S. Navy and the U.S. Coast Guard, in coordination with the National Security Council and the intelligence community, should lead a review of whether the classification of certain information about U.S. military shipbuilding processes and designs merits their current levels of protection. Certainly, for submarines and other highly sensitive vessels, the presence of foreign nationals in a shipyard is a non-starter, but this review could identify specific shipyards building vessels where the relaxation of security requirements to support the onboarding of expertise and temporary foreign support to accelerate vessel design and construction may be beneficial to U.S. national security.
- **Financing**—While the U.S. government has limited ability to directly steer existing grants, loans, or other forms of federal financial assistance towards shipbuilding, the government could review the statutory authority and direction for a limited number of key programs and adjust future Notice of Funding Opportunities (NOFOs) to explicitly highlight the eligibility of shipbuilding related projects—and set as a policy imperative the government's prioritization of shipbuilding project in awardee selection criteria. Notably, the modernization of shipbuilding facilities and their suppliers is likely an eligible use of both Department of Energy Loan Program Office funding (for shipyards producing vessels that run on next-generation fuels) and the

- Department of Defense Office of Strategic Capital Equipment Financing Program, which just closed its application process but will likely amend its guidance for next year's program.
- **Trade Action**—The United States must find an effective way to impose costs on Chinese shipyards and the PRC's broader maritime manufacturing sector to level the playing field. To date, these efforts have mostly focused on unilateral tariffs, which have limited effect since the U.S. imports very few maritime goods. Other proposals, such as port fees on PRC-built ships that dock in U.S. ports, are also difficult to implement and easy to circumvent. The Trump Administration could consider leading a multilateral effort to change the purchasing incentives for major European and Japanese ocean carriers that currently buy PRC ships and international terminal operators that buy PRC port equipment. A multilateral tariff arrangement is needed to make this happen. A group of allied countries led by the United States and its major shipbuilding allies, Korea and Japan—but also including major consumers such as the Europeans—could erect trade barriers that fence out the Chinese and funnel demand into U.S. and allied shipyards. Todo this, the United States will need to clearly communicate the risks of reliance on Chinese ships and equipment to major ocean carriers and terminal operators, and their governments.. Mechanically, this effort should include coordinating remedies with allies under both the existing maritime Section 301 investigation and a new additional Section 232 investigation initiated by the Department of Commerce on national security grounds. In addition to ships, this same multilateral logic for restrictive trade measures applies to steel (the primary material input for ships). The President may need to weigh whether imposing costs on allied steel production, or pushing those same allies to impose cost on the Chinese to ring-fence market-based economies in Europe, Korea, Japan and elsewhere, is more valuable to U.S. national security and the competitiveness of U.S. shipbuilding than further unilateral tariff action.

Legislative Action

• **Defense Production Act Reauthorization**—Without Congressional action, most of the authorities available under the Defense Production Act (DPA) will expire on September 25, 2025. The DPA reauthorization process provides a significant opportunity to develop specific powers and authorities to support American shipyards seeking to export vessels and better deliver military vessels on-time and on-budget. DPA Title III authorizes loans, loan guarantees, purchase commitments, grants and other financial assistance to certain U.S., Canadian, British, and Australian businesses to expand productive capacity and supply for national defense purposes. Congress could explicitly direct or authorize the use of DPA for American shipyards, and in support of the implementation of ICE Pact, add Finland as an eligible country to receive shipyard-related loans, purchase commitments, and loan guarantees. DPA Title III authorities could be used to provide financial incentives, including loan

guarantees and direct loans, to expand shipyards and shipbuilding capacity in the U.S. for icebreakers and other critical needs. Congress needs to fully fund these budget authorities before they can be used. Title III funding mechanisms are carried out via the Defense Production Act Fund (DPAF). <u>Appropriations</u> to DPAF have been shrinking in recent years, outside of major infusions during the COVID-19 pandemic, but Congress could replenish the DPAF and direct its application to spur upgrades and unlock new private financing for new or existing American shipyards.2

- Visas—While the labor supply challenges confronting American shipyards is a well-understood and over-discussed problem, under-highlighted is the needed visa flexibility these shipyards require to bring-in high-skill blue- and white-collar trainers and, when necessary, workers for "break glass" support to deliver critical military vessels. Congress could act to create a special visa program for shipbuilding that awards shipyards a certain limited number of 12-month special visas, determined through the National Shipbuilding Strategy, to hire foreign support from NATO countries under emergency circumstances, as determined by the Department of Defense and the Office of Management and Budget, or for training purposes. The success of the recent visa expansion program to support the competitiveness of South Korean shipyards presents a helpful case study
- Permitting Similar to the bipartisan proposal that President Biden signed to exempt
 certain new semiconductor manufacturing facilities from permitting processes,
 Congress should pass a similar proposal to time-limit NEPA review of new shipyards
 and shipyard expansions that are built using federal funds.

Without central government coordination and close collaboration with industry, efforts to revitalize this complex, capital-intensive sector of the American economy will invariably fail. The sorry state of American shipbuilding did not emerge overnight: it is the result of decades of underinvestment, habituation, and avoidance of the underlying problems ailing the sector. This problem cannot be solved overnight, and will not be done painlessly. However, there is a broad bipartisan recognition of both the scale and urgency of the problem. A smart approach, along the lines of the recommendations outlined here, can kick-start change in ways that maximize growth. If the Administration wants to practice effective maritime statecraft—and for ICE Pact to realize its potential—the U.S government will need to weld tools of economic statecraft with defense and industrial policy to change the trajectory of the American shipbuilding industry and lead the nation into safe harbor.

Endnotes

- VT Halter Marine was acquired by Bollinger Shipyards in 2022.
- 2 The Department of Defense administers the majority of DPA assistance, so in addition to statutory direction to support shippards through DPA assistance, the reauthorization bill would need to clarify how DPA should be used to support shipbuilding programs outside the U.S. Navy (e.g. U.S. Coast Guard programs under the Department of Homeland Security, U.S. Maritime Administration programs under the Department of Transportation).



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