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Executive Summary

Growing the size of the Navy has been a bipartisan goal for the U.S. government over the last decade. The U.S. naval shipbuilding enterprise has consistently failed to deliver ships to the fleet at the scale, speed, and cost needed. Cooperation with allies and partners presents a potential partial remedy for these U.S. shipbuilding challenges. This report assesses different pathways for expanding shipbuilding cooperation with allies: (1) allied purchase and revitalization of U.S. shipyards, (2) coproduction, including modular construction, and (3) U.S. purchase of allied-built ships. It briefly assesses converting U.S. repair yards to new-build yards by moving naval maintenance to allied yards overseas. The paper also explores currently active hybrid approaches incorporating aspects of multiple pathways.

Cooperation pathways were assessed against five principal criteria, organized by those that affect outcomes in advancing shipbuilding objectives and those related to the potential implementation of each pathway. Outcome-related criteria include (1) ship delivery speed, (2) cost implications, and (3) the potential to bolster U.S. shipbuilding capacity. Implementation-related criteria include (1) the willingness and ability of allied industry to cooperate and (2) political and regulatory viability in the United States.

Table 1: Evaluation of Shipbuilding Cooperation Pathways

	Previous examples	Benefits	Limitations
Allied acquisition of, partnership with, or investment in U.S. shipyards	Fincantieri Marinette Marine (Wisconsin), Austal USA (Alabama), NASSCO-Daewoo (California), Hanwha Philly (Pennsylvania), Davie Defense (Texas)	Acquisition by or partnership with allied shipyards can provide direct access to cutting-edge international shipbuilding processes and enable investment in underutilized U.S. yards, incentivizing overseas shipbuilders to make U.S. maritime industrial assets more competitive.	Revitalization requires substantial up-front capital; the recruitment, training, and cultural acclimation of a limited U.S. maritime workforce; and alignment of U.S. naval procurement with international best practices. It also cannot negate foundational U.S. shipbuilding challenges, such as design volatility, unnecessarily stringent naval requirements, single-source supply chains, insufficient workforce development, and the Navy's inconsistent procurement cycles.
Coproduction of ships by U.S. and allied shipyards	UK-Poland (2023–), Germany-Netherlands (2020–2026), Australia-Spain (2007–2015), France-Poland (2003–2007)	Coproduction may reduce workforce constraints, facilitate U.S.-ally interoperability and the attendant efficiencies of scale, accelerate delivery timelines, provide a channel for technology transfer into U.S. industry, and enable the distribution of fabrication across less-advanced yards and inland facilities.	Coproduction involves steep learning curves, high-precision work, tight coordination, and expensive module transportation. Current U.S. law treats ships with significant foreign-built components the same as those fully built abroad. It is more expensive and time-consuming than building complete ships abroad, and it offers fewer opportunities for incumbent U.S. industry than conventional construction.

U.S. purchase of ships from allied shipyards	U.S.-Finland (Helsinki Shipyard & Rauma Marine, 2025–), Australia-Japan (Mitsubishi Heavy Industries, 2025–), Saudi Arabia-Spain (Navantia, 2018–), UK-South Korea (Daewoo Shipbuilding and Marine Engineering, 2012–2018)	Purchasing foreign ships could drive down costs relative to domestic construction, deliver faster construction timelines, strengthen alliances and partnerships, provide business to U.S. subsystem suppliers, and incentivize investment in U.S. facilities.	Realizing meaningful cost and speed improvements would require the acceptance of allied specifications, classification and regulatory requirements may impede knowledge transfer, and current political and regulatory conditions make buying foreign ships difficult without sufficient political will to overcome legacy barriers.

Source: CSIS.

Foreign Cooperation on Maintenance, Repair, and Overhaul (MRO) with Allies

While partnering with allied shipyards to help solve the Navy's maintenance backlog has strategic upsides, pairing forward sustainment with reconstructing U.S. repair yards as new-build facilities was assessed as a relatively ineffective approach. Moreover, U.S. repair yards currently report excess capacity relative to demand, suggesting conversions (if desired) may not require MRO outsourcing.

Hybrid Approaches

Policymakers may take a hybrid approach by combining two or more pathways. The Coast Guard's Arctic Security Cutter (ASC) program fits this model. It blends the acquisition of Finnish-built ships to meet urgent security needs in the Arctic with foreign investment in underutilized U.S. yards in Texas and Mississippi, onshoring Finland's icebreaker expertise. A similar bridged approach for naval vessels—initial procurement of complete or partially built hulls abroad to incentivize transformative investments in the U.S. shipbuilding sector—is currently under active consideration.

Realizing the full potential of any of these avenues will require legal and regulatory reforms, a willingness to expend political capital, and sustained bilateral commitment.

The pathways outlined above offer opportunities to expand shipbuilding cooperation with allies and partners, each with different benefits and limitations. However, realizing the full potential of any of these avenues will require legal and regulatory reforms, a willingness to expend political capital, and sustained bilateral commitment.

Introduction

The U.S. Navy has struggled to maintain its current aggressive operational tempo with a fleet that is small by historical standards and faces serious, recurring delays in both ship construction and maintenance. China's navy has overtaken the U.S. fleet in size thanks to a far higher pace of shipbuilding.[1] The United States' shipbuilding challenge stems from a set of interwoven, systemic issues within both the U.S. government and industry, as well as broader socioeconomic trends. Workforce shortages, aging infrastructure, and brittle supply chains, coupled with uneven demand signals, design instability, and procurement-related red tape, have weakened the naval shipbuilding enterprise.[2] During World War II, U.S. shipyards produced nearly twice as many cargo and naval ships as the next five most productive shipbuilding countries combined.[3] That capacity was phased out both in the immediate postwar period and over subsequent decades, leaving behind a smaller and more fragile maritime industrial base.

Workforce shortages, aging infrastructure, and brittle supply chains, coupled with uneven demand signals, design instability, and procurement-related red tape, have weakened the naval shipbuilding enterprise.

This report examines one potential policy solution that has gained increasing attention: cooperation with allies to enhance the U.S. naval shipbuilding industrial base and global maritime security. The analysis focuses on opportunities for expanded cooperation with South Korea and Japan, two treaty allies with globally competitive shipbuilding sectors, cutting-edge production processes, and robust supplier ecosystems. Both countries have demonstrated the ability to efficiently deliver complex naval and commercial vessels on predictable schedules.

The report assesses potential pathways for naval shipbuilding cooperation to determine their benefits, limitations, and feasibility. The primary pathways include allied acquisition of, partnership with, or investment in yards in the United States; coproduction with allied shipbuilders; and the purchase of ships produced in allied yards overseas. Another pathway involving moving maintenance work overseas to allied shipyards in order to repurpose U.S. shipyards for new builds is briefly discussed. The report also addresses hybrid cases incorporating multiple pathways. These different pathways are evaluated against five principal metrics: delivery speed, cost implications, potential to bolster U.S. shipbuilding capacity, the willingness and ability of allied industry to cooperate, and political and regulatory viability in the United States.

Shipbuilding cooperation is no longer a theoretical proposal; policymakers are actively considering, and in some cases implementing, pathways. The Trump administration has made bolstering both U.S. naval and commercial shipbuilding a policy priority and has demonstrated openness to expanding cooperation with allies in order to do so. In July 2025, the South Korean government announced a $150 billion "Make American Shipbuilding Great Again" (MASGA) initiative as part of a broader trade and defense agreement.[4] A July 2025 agreement between the United States and Japan included shipbuilding as a key category within a $550 billion Japanese investment in U.S. strategic industries; both countries also signed a memorandum of cooperation in October 2025 to expand mutual shipbuilding capacity.[5]

Meanwhile, the Coast Guard is acquiring its new ASC under a cooperation framework between U.S., Canadian, and Finnish shipbuilders and yards. The administration plans to continue exploring further opportunities for cooperation, including $1.85 billion in research, development, testing, and evaluation funding in its fiscal year 2027 reconciliation request for the Department of Defense (DOD) to study the procurement of a frigate or destroyer from abroad, with Office of Management and Budget sources suggesting the funds could be used to acquire two partially built hulls from a foreign shipbuilder which agreed to make investments in the United States.[6]

This report ultimately seeks to inform U.S. policymakers' decisions on how to increase shipbuilding capacity by evaluating different forms of cooperation with allies and partners.

Pathways for Enhancing U.S. Shipbuilding Capability and Capacity

Carefully designed cooperation between U.S. government and industry and allied governments and industry may offer an approach to rebuilding capacity while reinforcing collective maritime security. This report outlines and assesses potential pathways for advancing shipbuilding cooperation with allies, expanding on previous work on the topic.[7] Together, these pathways offer distinct mechanisms for addressing the U.S. naval shipbuilding challenge.

The primary pathways explored in this paper are as follows:

- allied acquisition of, partnership with, or investment in U.S. shipyards to expand production capacity;
- coproduction of warships by U.S. and allied shipyards, leveraging complementary industrial strengths; and
- U.S. purchase of warships from allied shipyards to accelerate fleet expansion and reduce schedule risk.

The report also assesses expanding MRO activities in allied shipyards overseas with the goal of repurposing U.S. maintenance facilities into new-build yards. In practice, these pathways are not mutually exclusive and have been frequently operationalized into a "hybrid cooperation approach," which the report discusses.

Criteria for Evaluating Cooperation Pathways

This report assesses these pathways according to their potential to advance shipbuilding outcomes for the U.S. Navy, as well as their viability from the perspectives of allied willingness to cooperate and the existing U.S. regulatory and policy framework. Each pathway is assessed against five principal criteria, grouped into those that affect outcomes in advancing shipbuilding objectives and those related to the potential implementation of each pathway.

Outcome-related criteria include the following:

- **Ship Delivery Speed:** how expediently a pathway delivers ships to the U.S. Navy.
- **Cost Implications:** the budgetary repercussions of a given pathway.
- **Bolstering U.S. Shipbuilding Capacity:** the extent to which a given pathway may expand U.S. indigenous shipbuilding capacity.

Implementation criteria include the following:

- **Allied Industry Willingness and Ability:** the extent to which industry partners in allied countries would be able and willing to cooperate with the United States on shipbuilding initiatives.
- **U.S. Political and Regulatory Viability:** the palatability of each pathway within the U.S. shipbuilding enterprise, given the interests of the Navy, the broader DOD, Congress, the shipbuilding industrial base, and other actors, as well as the requisite legal and regulatory changes needed for implementation.

Under each pathway, the report identifies examples of ongoing or past cooperation. The final section of the report discusses hybrid approaches to cooperation that incorporate aspects of multiple pathways.

This evaluation is not intended to identify an optimal pathway of cooperation for policymakers and the U.S. shipbuilding enterprise. Rather, the assessment highlights which pathways correspond to U.S. shipbuilding objectives and policymaker preferences, such as the ability of the U.S. Navy to rapidly expand the size of its fleet or to grow U.S. domestic shipbuilding capacity.

The pathway evaluations are based on publicly available information, as well as information gathered by the study team in interviews with current and former government officials, industry representatives, and think tank experts from the United States, South Korea, and Japan. Interviews were conducted both virtually and in person, including during a visit to South Korea and Japan in June–July 2025.

Pathway Evaluation

Allied Acquisition of, Partnership with, or Investment in U.S. Shipyards

Shipbuilders from allied nations may choose to purchase U.S. shipyards or, alternatively, invest in or partner with U.S. yards. Broadly, efforts under this pathway may be categorized as "direct acquisition" or "partnerships."

Under direct acquisition, a foreign shipbuilder purchases a U.S. yard outright, gaining operational control and access to existing customers and order books, shipbuilding expertise, workforce, supply chain relationships, and intellectual property (IP). This access can facilitate the sharing of not only technology and management practices but also tacit knowledge and proprietary processes. Further, it may enable transformative facility investments from allied shipbuilders. The principal constraints are regulatory and workforce-related: Acquisitions of yards involved in sensitive naval work typically require Committee on Foreign Investment in the United States (CFIUS) review and other clearances or waivers, while the acquiring firm must reconcile its management practices with U.S. labor, subcontractor, and cultural norms. Foreign shipbuilding firms also need to acclimatize themselves to U.S. government contracting practices and adapt to managing U.S.-based supply chains.

Partnerships may encompass joint ventures, minority investments, commercial design collaborations, technical assistance agreements, and personnel exchange programs.[8] While

the foreign shipbuilder does not take direct ownership of a U.S. yard under these approaches, knowledge can still move through negotiated channels and may include shared designs, jointly developed technology, or worker rotations and exchanges to develop hands-on skills.

Partnership arrangements generally face lower regulatory scrutiny than acquisitions but must comply with International Traffic in Arms Regulations (ITAR), export regulations, and Defense Security Cooperation Agency guidelines. Among the most noteworthy of these arrangements are South Korea's Daewoo Ship Engineering Company (DSEC) and HD Hyundai, which have initiated partnerships with General Dynamics NASSCO and Huntington Ingalls Industries (HII), respectively.[9]

PREVIOUS OR CURRENT CASES

Fincantieri's Acquisition of Marinette Marine

Italian shipbuilder Fincantieri's 2009 takeover of Manitowoc Marine Group—an acquisition that included Marinette Marine and smaller yards in Sturgeon Bay and Green Bay, Wisconsin —illustrates how direct foreign ownership can enable the scale of capital investment needed to transform a regional shipbuilder into a major naval contractor.[10] The Manitowoc Company purchased Marinette Marine in 2000 and subsequently bid on the Littoral Combat Ship (LCS) contract with Lockheed Martin before selling to Fincantieri as it refocused on its core crane manufacturing and food services divisions.[11]

The acquisition unlocked a reported $1 billion in cumulative investment across Marinette's Wisconsin shipyards, including a new dual-bay construction hall, an automated panel line, the largest U.S. ship lift, and expanded blasting and painting capacity.[12] The yard's workforce grew from roughly 1,000 at acquisition to approximately 3,000, though recruiting and retaining skilled tradespeople from upper Wisconsin's limited labor pool remains a persistent challenge.[13] Fincantieri ultimately delivered 16 Freedom-variant LCS hulls before pivoting to the now-curtailed Constellation-class frigate. Most recently, it secured a contract to build four medium landing ships for the U.S. Marine Corps.[14]

However, the Marinette example also reveals limitations in the effectiveness of technology transfer when regulatory restrictions prevent parent-subsidiary knowledge sharing. ITAR restrictions, which are intended to limit the proliferation of defense technologies to adversaries, complicated information sharing. Fincantieri had to maintain duplicative engineering capabilities in Italy and Wisconsin because information could not easily be shared with expert Italian engineers. Personnel movement was hindered by security clearance requirements, undermining effective knowledge transfer.[15] Lockheed's status as prime contractor supervising Marinette's LCS production posed coordination difficulties, and the Constellation program experienced substantial delays, cost overruns, and eventual cancelation of all ships not under construction after U.S. Navy modifications added 500 metric tons of additional outfitting to the Frégate européenne multi-mission (FREMM) baseline, among other issues.[16]

Austal's Acquisition of Bender Shipbuilding and Repair Company

The entrance of Australian high-speed ferry builder Austal into the U.S. defense market represents a unique instance of the successful transfer of foreign commercial IP (specifically, expertise in aluminum hull construction and high-speed modular manufacturing) into a major naval program. Austal established a U.S. foothold through a 1999 joint venture with Bender Shipbuilding and Repair, based in Mobile, Alabama, forming Austal USA (Bender was fully bought out in 2006).[17] Its first military contract was the WestPac Express, a high-speed catamaran troop and cargo transport built for the Military Sealift Command that "exceeded all operational expectations" and demonstrated Austal's commercial multi-hull designs could meet demanding military requirements.[18]

In partnership with General Dynamics, Austal USA in 2002 won the contract for the Independence-variant LCS, a multi-hull variant drawing from Austal's high-speed ferries. Between 2010 and 2025, Austal delivered 19 Independence-variant hulls, replacing General Dynamics as prime contractor midway through the program.[19] The program's trajectory was not without serious friction, however. Government Accountability Office (GAO) reports issued throughout the program flagged persistent cost growth, schedule delays, and problems stemming from the initiation of construction before vessel designs were fully stable.[20]

Aspects of Austal's experience also illuminate challenges foreign shipbuilders might expect when entering the U.S. market. Austal's initial years after the acquisition were marked by unprecedented losses, with annual reports citing "lower than anticipated labour productivity levels" and "inexperience with classification requirements." These losses demonstrate that workforce development should be a significant consideration for the future application of this approach, especially when cultural differences and compliance requirements are incompletely understood pre-acquisition. Austal's financial vulnerabilities persisted into the 2020s, requiring Defense Production Act Title III funding and private equity to sustain necessary facility investments and demonstrating how limited parent company capitalization can constrain the sustained investment that successful technology transfer requires.[21]

Foreign capital and expertise could facilitate the conversion of underutilized commercial waterfront facilities into naval new-build capacity, particularly with time, capital, workforce development, and opportunities to demonstrate capabilities for naval work.

However, Austal's conversion of a small offshore-focused commercial repair yard to a full-fledged naval shipbuilder suggests that foreign capital and expertise could facilitate the conversion of underutilized commercial waterfront facilities into naval new-build capacity, particularly with time, capital, workforce development, and opportunities to demonstrate capabilities for naval work. A recent example of this approach is Canadian-based Davie's acquisition of the Gulf Copper repair yard in Texas and its plans to upgrade it into a major icebreaker production hub, discussed later in this report under "Hybrid Approaches in Action."[22]

NASSCO/Daewoo: Tech Transfer, Vessel Design, and Production Improvement Partnership

In 2006, General Dynamics NASSCO, a shipyard in San Diego, and the South Korean marine engineering firm DSEC formed a partnership that continues to this day. General Dynamics' arrangement with DSEC contains two components: licensing of commercial designs and feedback on NASSCO's production processes.[23] DSEC's recommendations included adopting the "1-3-8" production philosophy and implementing inverted outfitting techniques, which reduced average blasting and painting time from 16 to 11 days and generated productivity improvements exceeding 60 percent for naval support vessels.[24]

NASSCO's acceleration from delivering an average of one ship per year from 1960 to 2010 to seven ships in FY 2016 demonstrates the speed with which well-structured partnerships and robust demand can reverse output declines.[25] Additionally, the collaboration's focus on commercial and auxiliary designs minimized the ITAR complications that affected Fincantieri. The partnership demonstrates that the infusion of foreign IP and production process knowledge can replicate the modernization benefits associated with foreign acquisition. The collaboration's scope also illustrates the relative ease of commercial technology transfer compared to defense IP transfer.

Hanwha's Acquisition of Philly Shipyard

South Korean conglomerate Hanwha Group completed a $100 million acquisition of Philadelphia's Philly Shipyard in December 2024, purchasing the facility from Norwegian industrial investment firm Aker Capital.[26] The deal received expedited approval from both CFIUS and the Directorate of Defense Trade Controls and marked the first South Korean acquisition of a U.S. shipyard.[27]

Established in 1997 on the grounds of the former Philadelphia Naval Shipyard, Philly Shipyard had delivered approximately half of all large oceangoing Jones Act commercial vessels built in the United States since 2000.[28] At the time of Hanwha's acquisition, it held an order book that included three liquefied natural gas (LNG)-fueled containerships for Matson Navigation and five National Security Multi-Mission Vessels for the U.S. Maritime Administration.[29]

Hanwha's investment plan centers on significant capital investments and workforce ramp-ups. In August 2025, the company announced a $5 billion infrastructure plan encompassing two new dry docks, a new block assembly facility, and the phased introduction of automated welding technology and digital smart-yard systems transferred from South Korean yards.[30] The company has targeted an annual output of 10–20 vessels by 2035 (up from approximately 1–2 at the time of purchase)

and a workforce of roughly 4,000, more than double the current number.[31] However, skilled labor shortages and high turnover rates have posed major challenges to Hanwha's ambitious timelines.[32]

The strategy has been supported by cross-subsidization from other components of Hanwha. In July 2025, Hanwha Shipping ordered the first U.S.-built LNG carrier in nearly 50 years.[33] In August 2025, it followed with an order for 10 medium-range oil and chemical tankers, described as the largest U.S. commercial vessel order in more than 20 years.[34] The yard has been positioned at the center of the bilateral MASGA South Korean investment initiative.[35] In December 2025, President Trump announced that Hanwha would participate in the construction of the FF(X) U.S. Navy frigate program.[36]

HD Hyundai Collaboration with HII and Cerberus

In April of 2025, HII, which operates military shipyards in Virginia and Mississippi, and Hyundai, operator of the world's largest shipyard in Ulsan, South Korea, signed an MOU to explore a collaboration to accelerate ship production for both defense and commercial shipbuilding projects.[37] A follow-on memorandum of agreement was signed in October 2025, focusing on exploring investments in distributed shipbuilding, possible teaming on navy auxiliaries such as the next-generation logistics ship, collaboration on research and development (R&D) for artificial intelligence/machine learning and robotics, and Indo-Pacific ship life-cycle support.[38] While the specifics of how this collaboration will be operationalized have not been made public, discussions with corporate leaders suggest the goal is to bring production expertise and technologies developed for Hyundai's higher-volume commercial production to enhance HII's processes.

Hyundai has also signed an agreement with U.S. private equity firm Cerberus Capital Management to form Cerberus Maritime, a new fund focused on revitalizing U.S. and allied maritime capabilities.[39] Hyundai will serve as anchor investor and technical partner, with support from the Korea Development Bank. Cerberus Maritime will invest in U.S. ports, maritime logistics infrastructure, and advanced maritime technologies, with a "particular focus on U.S. shipbuilding."[40] It will be modeled on Cerberus's acquisition of Subic Bay, a distressed shipyard in the Philippines that Cerberus reconstructed as a multiuse facility with Hyundai as the primary tenant.[41]

Davie Defense's Acquisition of Gulf Copper in Galveston, Texas

In 2025, Davie Defense, a subsidiary of Canada's largest shipbuilder, acquired Gulf Copper, an offshore maintenance yard located in Galveston, Texas.[42] The group plans to build a $1 billion "Icebreaker Factory" for the U.S.-Finnish ASC program on the site; groundbreaking occurred in 2026.[43] The initiative will be discussed at length later in the report in the section covering hybrid approaches.

PATHWAY EVALUATION

Ship Delivery Time

The speed with which foreign acquisitions or partnerships may lead to a production uptick depends on the parameters of the chosen approach, demand signal, regulatory barriers, and yard-specific physical and workforce conditions. The direct acquisition of a yard by a foreign shipbuilder requires

an extended period of due diligence, regulatory approvals, and post-acquisition integration. In 2009, after Fincantieri acquired Manitowoc Marine Group—which included Marinette Marine and smaller yards in Sturgeon Bay and Green Bay—it took several years to achieve full operational integration.[44] CFIUS reviews, which assess the impacts of foreign ownership on national security, typically take 12–18 months, and conditional approvals limit operational integration.[45] Facility renovations, workforce training, and production process standardization require multiple years before meaningful productivity improvements materialize.

Technology transfer partnerships, particularly in the commercial sector, offer the most rapid implementation timeline but typically feature less-dramatic ramp-ups of capital investment and output. The partnership dating to 2006 between General Dynamics NASSCO's commercial division and DSEC, then a division of the South Korean firm Daewoo Shipbuilding and Marine Engineering, began yielding productivity improvements within a year of inception.[46] Because such partnerships avoid ownership transition periods or CFIUS review (as well as ITAR compliance burdens if they focus exclusively on commercial vessels), they can commence relatively quickly.

Cost Implications

Direct acquisition of U.S. yards by foreign firms may require only limited up-front U.S. government expense, as capital investments typically come primarily from private foreign sources. However, foreign shipbuilders have sought U.S. government support for facility upgrades. Fincantieri paired its investment of over $500 million in Marinette Marine over the first 15 years of operation with $50 million each from the Navy and the Wisconsin state government.[47] Austal USA's recent expansion was supported by $288 million in private investment supplemented by $152 million in Defense Production Act Title III funding.[48]

Public-private cost sharing and foreign investment reduce the fiscal burden on taxpayers compared to U.S. government–funded yard modernization. The South Korean government has pledged to invest as much as $150 billion in U.S. shipbuilding as part of the bilateral 2025 MASGA initiative. The Trump administration's proposed maritime opportunity zones could spur additional private capital interest.[49] However, indirect costs may arise from CFIUS reviews, compliance monitoring, and the suppression of alternative uses for waterfront real estate.

Nonequity partnerships such as the NASSCO-DSEC collaboration impose lower up-front costs for both the government and private sector. NASSCO's partnership required limited facility investments, such as new paint application systems, to achieve a reported 60 percent reduction in unspecified labor hour requirements for naval support vessels.[50] The government's unavoidable costs would be limited to regulatory oversight.

Bolstering U.S. Shipbuilding Capacity

The potential of foreign acquisition and partnership to bolster U.S. shipbuilding capacity is variable, depending not only on the selected approach but also on implementation. Direct acquisition has demonstrated the most dramatic instances of capacity creation. Fincantieri's acquisition of and

investment in Marinette Marine transformed a small coastal vessel producer into a yard capable of producing complex surface combatants, including the Freedom-class LCS and Constellation-class frigates.[51] Austal USA rebuilt a similarly minor yard as a prime contractor for Independence-class LCS and eventually Virginia-class submarine modules—capabilities that would not have developed absent foreign investment and technology transfer.[52]

Capacity creation mechanisms include physical infrastructure expansion—for example, Fincantieri added approximately $500 million in facilities, including assembly buildings, ship lifts, and panel lines. Other mechanisms are workforce development, such as Marinette tripling employment, and technical capability enhancement through the transfer of advanced manufacturing techniques, such as modular construction and zone outfitting.[53] These improvements create enduring capacity that will benefit U.S. shipbuilding even if the foreign owner eventually sells the yard.

The United States has numerous marine sites . . . that lack the specialized capabilities, infrastructure, and workforce needed for sophisticated naval production. Foreign investment could provide capital and expertise to bridge this gap.

Commercial yard conversion through foreign investment could create substantial new naval capacity by revitalizing underutilized facilities. The United States has numerous marine sites with basic infrastructure (e.g., waterfront access, docks, and cranes) that lack the specialized capabilities, infrastructure, and workforce needed for sophisticated naval production. Foreign investment could provide capital and expertise to bridge this gap.

Technology transfer partnerships may create capacity through knowledge diffusion rather than capital investment. NASSCO's reported 60 percent reduction in labor hours for naval support vessels represented real capacity creation, meaning the same workforce and facilities could produce significantly more ships per year.[54] However, this productivity-driven capacity expansion subsequently faltered in the face of reduced demand. Nonetheless, technology transfer partnerships create less capacity than direct acquisition because they lack the sustained capital commitment and operational control that enable transformative change.

Allied Industry Willingness and Ability

Allied shipbuilders have demonstrated willingness to adopt this pathway in response to government incentives, fierce competition with Chinese shipbuilders in the commercial market, and labor shortages at home.[55] The South Korean government, in particular, has emphasized its MASGA project as a way to manage and improve its broader relationship with the United States in light of tariff disputes and regional security challenges.[56]

The growing demand for new vessels from the U.S. Navy is also naturally attractive to foreign shipbuilders. The Trump administration's FY 2027 budget request for shipbuilding was $65.8 billion, the largest shipbuilding budget proposal since 1962 when adjusted for inflation.[57] However, the recent history of foreign shipbuilders purchasing or even partnering with U.S. yards points to some economic challenges in the U.S. market.

Foreign shipyards may face complications due to compliance burdens and an uncertain demand signal from the U.S. government. Austal posted its worst financial results in 2003 because of lower-than-anticipated labor productivity and inexperience with security requirements.[58] This can apply to even well-capitalized acquirers; Fincantieri needed to invest approximately $500 million in capital improvements, process improvements, and workers, in addition to the initial $120 million acquisition price of Marinette Marine in 2009.[59] ITAR restrictions impose significant additional costs by forcing international shipbuilders to establish duplicative engineering teams. Shipbuilders consistently emphasize that sustained capital expenditures require long-term, stable contracts.[60] Without assured demand, foreign firms are understandably reluctant to invest in a monopsonistic market with regulatory uncertainty, compliance costs, and workforce challenges.

Hanwha Ocean and Hyundai, South Korea's two largest naval shipbuilders, have pursued divergent approaches to entering the U.S. market, as evidenced by Hanwha's purchase of Philly Shipyard and Hyundai's more limited MOU with HII. Hanwha's strategy involves a higher degree of risk in the pursuit of a commanding portion of the U.S. Jones Act and defense markets, while Hyundai's is significantly more cautious, with limited upside in the form of maintenance and module contracts.

U.S. Political and Regulatory Viability

Political support for foreign investment appears to be widespread and continuing across administrations. Former Navy Secretary Carlos Del Toro explicitly encouraged foreign investment in U.S. shipyards in 2024, praising Fincantieri and Austal for modernizing facilities while criticizing U.S. shipbuilders for prioritizing stock buybacks over infrastructure investment.[61] Local officials and congressional representatives in Alabama, Wisconsin, and Pennsylvania have consistently praised international shipbuilders for investing in their constituencies.[62]

During the second Trump administration, support for bringing foreign investment into the U.S. industrial base has continued. Former Navy Secretary John Phelan stressed the need to imitate international best practices and praised Hanwha's investment in Philly Shipyard.[63] Director of the Office of Management and Budget Russell Vought stated in April 2026, "If we cannot get the ships we need from traditional sources at cost and on time, we will get them from other shipyards."[64] Rear Admiral Ben Reynolds, Navy deputy assistant secretary for budget, openly discussed leveraging the Hanwha model for shipbuilding cooperation, stating in April 2026, "The best answer for us is to get a foreign investment–foreign partnership–that will help us in our shipyards here in the United States."[65]

Not all actors in the United States support bringing foreign shipbuilders into the U.S. industrial base. Some established U.S. naval shipbuilders may view foreign investment as a competitive threat.[66]

These concerns are not entirely unfounded. If foreign-owned yards capture a larger share of naval contracts due to superior efficiency or lower costs, purely domestic shipyards may face reduced order books and workforce instability.

Regulatory barriers present formidable obstacles even when political support exists. Executives from an international shipbuilder with a U.S. subsidiary have described how ITAR restrictions forced them to maintain parallel engineering teams across national lines, seek clearance to move employees between facilities, and obtain waivers for technical assistance—requirements that undermine the knowledge-sharing benefits that should flow from foreign ownership.[67]

The two approaches also face different levels of regulation. Direct acquisition faces the strictest scrutiny, especially for naval yards. Investing in and converting a commercial yard for military shipbuilding capability, such as in the case of Hanwha Philly, may encounter less regulatory resistance if focused initially on auxiliary or support vessels. Warships are more complex assets with more sensitive technology on board, putting foreign ownership of yards under greater scrutiny. Commercial technology transfer partnerships without ownership changes face the fewest regulatory barriers. For example, the NASSCO-Daewoo collaboration entirely avoided CFIUS review and extensive ITAR complications.

KEY TAKEAWAYS

Fincantieri's transformation of Marinette Marine and Austal's development of Bender Repair demonstrate that allied investment and expertise can transform uneconomical or obsolete facilities, creating genuine capacity gains for U.S. shipbuilding. However, ITAR restrictions create challenges for foreign parent companies providing engineering support, sharing technical information, or moving personnel freely between their U.S. subsidiaries and overseas facilities—all of which limit the technology transfer benefits that represent the primary strategic rationale for accepting foreign ownership.

Foreign investment also cannot negate fundamental U.S. naval shipbuilding challenges such as design volatility, unnecessarily stringent naval requirements, single-source supply chains, and insufficient workforce development systems.

Foreign investment also cannot negate fundamental U.S. naval shipbuilding challenges such as design volatility, unnecessarily stringent naval requirements, single-source supply chains, and insufficient workforce development systems. Fincantieri's Constellation-class program experienced substantial delays and cost overruns after U.S. Navy modifications added 500 metric tons of additional outfitting to the European FREMM baseline, demonstrating that allied shipbuilders also struggle with dysfunctional procurement paradigms.[68]

For allies such as Japan and South Korea, streamlined technical assistance agreements and preapproved personnel exchange programs could facilitate the knowledge flows that make foreign investment transformative rather than merely cosmetic. The success of the NASSCO-DSEC commercial collaboration illustrates the potential of tech transfer partnerships unencumbered by the regulations and requirements associated with naval construction.

Foreign shipbuilders consistently emphasize that substantial investment in U.S. facilities requires confidence in long-term, stable demand. The Navy's historically inconsistent procurement patterns—characterized by starts, stops, and dramatic shifts in ship class requirements—make serving the U.S. naval market unattractive compared to commercial markets where contracts are more predictable. Multiyear block buys, realistic budgets, and credible production schedules that account for learning curves could make investing in the U.S. naval industrial base more appealing to allies.

Coproduction

Coproduction involves the United States working with international partners on shipbuilding, with production distributed across the participating nations, typically following one of two approaches. The first, traditional modular coproduction, involves foreign yards manufacturing self-contained, preoutfitted ship modules to be transported to U.S. shipyards for final assembly and integration.[69] The second, known as a "green hull" approach, involves foreign shipyards constructing complete hull structures to be sent to U.S. yards for systems outfitting and completion.[70]

Proponents argue that modular coproduction could enable the United States to scale warship construction more rapidly by allowing for parallel work across multiple facilities, resulting in time and cost savings.[71] However, this pathway introduces learning curves in coordination and technical standards while facing political and regulatory barriers similar to those associated with the outright purchase of foreign ships.[72] Advocates stress that green hull procurement is relatively straightforward to implement, but they acknowledge a learning curve regarding outfitting and highlight inefficiencies in producing ships this way.

PREVIOUS OR CURRENT CASES

Allied nations have employed modular and green hull approaches for decades. These pathways are most often employed when (1) the recipient nation requires new vessels urgently, (2) the recipient nations lack the domestic capacity, expertise, or financial resources to build complete ships themselves; or (3) the foreign partner provides design, engineering, and production expertise, as well as hardware. In some commercial cases, modular production is used to outsource parts of the ship to countries with lower-cost production.

Multiple examples exist of allied modular coproduction. A cautionary example is Germany's F126 frigate program. This effort paired three German shipyards with a Dutch firm, Damen, which served as prime contractor, splitting work 30/70 between the Netherlands and Germany.[73] The program faced significant cost overruns, which German officials attributed to Damen's deficient software and

Dutch sources blamed on German micromanagement and requirements creep.[74] In 2026, Damen was fired, and the entire program was subsequently canceled after German officials determined onshoring would raise the total program cost to €18 billion and entail unacceptable delivery delays.[75] The six-frigate F126 program was replaced with an order for eight smaller MEKO frigates, a preexisting domestic design from ThyssenKrupp Marine Systems at a cost of €11.6 billion.[76]

For the UK Type 31 frigate program, Babcock has subcontracted hull block construction since 2023 for HMS *Active* (the class's second vessel) to Polska Grupa Zbrojeniowa. The blocks were manufactured in Poland and transported by barge to Scotland for integration. The deal was intended to control costs, circumvent British capacity bottlenecks, and prepare the Polish workforce for Poland's own frigate program based on a British design.[77] However, outsourcing the modules has generated political controversy and resistance in Britain, including from organized labor.[78]

There are also several examples of green hull cooperation. From 2007 to 2015, Navantia constructed the hulls for Australia's Canberra-class landing helicopter dock ships in Spain from the keel to the flight deck (approximately 85 percent of the vessel's structure), then transported them to Australia, where BAE Systems Australia installed the island superstructure, combat systems, and communications equipment.[79]

The coproduction of the Mistral-class landing platform docks split ship construction between three yards from 2003 to 2007. France's DCN (now Naval Group) handled the majority of systems and outfitting, while Chantiers de l'Atlantique (another French yard) built the habitability modules and Stocznia Remontowa in Poland took on steelwork and hull construction to lower labor costs.[80]

The Polish Border Guard's current offshore patrol vessel program involves a green hull arrangement in which French shipbuilder Socarenam won the tender to build a 70-meter offshore patrol vessel for Poland, but hull construction was subcontracted to Naviretech in Poland. After a year of work, the partially equipped hull was launched in July 2022 and towed to Socarenam's shipyard in France, where final outfitting and equipment installation were completed. The program is expected to last from 2020 to 2030.[81]

PATHWAY EVALUATION

Ship Delivery Time

Previous efforts and interviews with shipbuilders suggest that the coproduction approach may eventually allow for accelerated vessel delivery, but it involves a substantial up-front period to establish the necessary corporate, regulatory, and technical frameworks.

Modular construction, once established, has the potential to accelerate individual ship construction timelines. Commercial industry sources claim this approach can halve construction timelines via overlapping construction phases while boosting efficiency.[82] Among other benefits, construction of modules can occur in enclosed environments, creating a more comfortable workplace for employees and avoiding weather-related delays that impact traditional shipyards. The U.S. maritime

industry is already familiar with modular construction, easing the implementation process.[83] U.S. Virginia-class submarine producers have implemented aspects of modular shipbuilding, with General Dynamics Electric Boat and HII Newport News each building specialized elements and transporting supermodules to each other to a rotating final assembly location.[84] The U.S. maritime industrial base is already making increased use of modular construction for surface ships, including Eastern Shipbuilding Group's work on DDG-51 Arleigh Burke modules for HII.[85]

These techniques offer the potential to reduce shipbuilding timelines in the long run—especially if the U.S. Navy is willing to embrace new methods, including more spacious vessel designs that make production processes, including module integration, easier. Implementing modular coproduction between U.S. and allied shipyards would require additional preparation before construction could commence. This would involve negotiation and signing government-to-government agreements establishing the legal framework, as well as industry-to-industry agreements. The latter would need to cover the development of detailed interface specifications defining how modules from different yards will connect and the establishment of common quality assurance protocols. Modular coproduction would also require upgrades to U.S. shipyard infrastructure to handle module receipt and assembly, as well as the training of U.S. shipyard workers in integration techniques. These investments in U.S. infrastructure (discussed in detail below) will take time to plan and execute.

The green hull approach, in contrast, has its main stumbling blocks in the postdelivery installation of equipment and systems, which could require significant labor-intensive superstructure deconstruction and reconstruction.[86] Ships are not typically built "outside in," and either the correct cabling and interfaces for complicated systems must be laid by the building yard—requiring significant information sharing efforts—or deconstruction and rework will be needed in the assembling yard.[87] This approach runs counter to the best practice of advanced outfitting. While the green hull approach is likely simpler and quicker to start, the long-run benefits for per-ship construction time may not be as high given rework requirements and process inefficiencies. Nevertheless, the outfitting of largely complete hulls is within the capabilities of the U.S. workforce and physical infrastructure, and the overall cooperation activity could begin relatively quickly.

Cost Implications

Making use of modular coproduction would require major infrastructure investments to upgrade U.S. shipyards to receive and assemble large modules from abroad, align standards with allied yards, cover transportation costs, and manage the inefficiencies of distributed production compared to one optimized facility.[88] Although some U.S. shipyards have begun to adopt modern modular construction techniques, further investment would almost certainly be required.[89] This would dovetail with U.S. efforts to implement "nation-as-a-shipyard" policies, which leverage distributed modular construction across the United States, and the recent U.S. Navy investment of $900 million (alongside $1.5 billion in private capital) to create the "factory of the future" in Cherokee, Alabama, to manufacture submarine components.[90]

To make modular coproduction successful, U.S. shipyards would likely have to invest in facilities to accommodate module delivery and positioning. This would involve purchasing additional heavy-lift cranes, implementing precision measurement systems, and possibly revamping production flows.[91] Allied yards would need to ensure modules meet the U.S. Navy's survivability and systems requirements. Extensive coordination would be needed to ensure modules fabricated abroad meet U.S. quality and safety standards.[92] Coordination costs would include government officials' time to align standards, as well as the pass-through costs of adjusting tooling and machining practices.

Transporting large modules is also expensive.[93] Construction across multiple locations involves one yard constructing and joining together several small blocks into superblocks, weatherproofing them for seaborne transport, and then sending them to another yard for assembly. Typically, barges or specialized heavy-lift ships are needed to handle these superblocks, necessarily raising transportation costs.[94] A fully outfitted engine room module or accommodation block can weigh several hundred tons and require specialized heavy-lift vessels for transpacific transport.[95] Modules must be protected from saltwater corrosion, mechanical stress, and shrinkage/expansion during transportation, adding cost and risk.[96]

Challenges to implementing allied modular coproduction include cross-shipyard communication across corporate lines, which is especially complicated by a lack of accountability when failures occur.[97] Some of the difficulties coordinating between shipyards could be ameliorated if those overseas and those in the United States were owned by the same overall entity.

The green hull approach might cost less to implement initially, but its relative inefficiency could lead to higher per-ship costs in the long run. Up-front capital and coordination costs would likely be lower because the approach keeps high-value, high-complexity, security-sensitive outfitting work in the United States. Transporting hulls is less sensitive than transporting modules; Navantia's successful hull export from Spain to Australia demonstrates that a similar transpacific arrangement should be possible.[98] However, building a ship in this manner is not a best practice. The significant reworking required to cut open parts of the ship (e.g., deck and piping) to emplace systems into the green hull would drive long-term cost increases, which must be balanced against lower up-front implementation costs.

Bolstering U.S. Shipbuilding Capacity

Modular coproduction's primary potential benefit to U.S. shipbuilding capacity would be through technology transfer and workforce skill development. By engaging with South Korean and Japanese shipbuilders who employ advanced modular construction techniques, U.S. yards could acquire new methodologies that improve long-term productivity.[99] Limited segments of the U.S. shipbuilding industry have begun to employ modular methods for the production of nuclear submarines and limited surface ship programs including Arleigh Burke destroyers Flight III.[100] However, these efforts could still see broader usage and greater efficiencies.

By engaging with South Korean and Japanese shipbuilders who employ advanced modular construction techniques, U.S. yards could acquire new methodologies that improve long-term productivity.

However, the modular coproduction pathway is not purely focused on expanding domestic production. Work performed in South Korean and Japanese shipyards does not build U.S. capacity, except in the case where U.S. workers are brought over to learn skills working in foreign yards, such as through the ASC program.[101] If U.S. yards change their workflow to only (or primarily) perform assembly of foreign-supplied blocks, they could develop integration skills but likely would not markedly improve their overall ship construction capabilities.

The green hull approach may involve less domestic work than modular construction, as many of the ships' blocks will have been joined in the foreign shipyard. Outfitting the hull structure after construction with high-end systems such as radar and weapons requires different skills than the advanced fabrication and preoutfitting that support new ship construction. Modular integration demands precision engineering, complex project management, and sophisticated quality control—capabilities that could translate to improved overall shipbuilding prowess.[102]

Allied Industry Willingness and Ability

Opinions differ among Japanese and South Korean shipbuilders regarding the value and viability of green hull production for the U.S. market. Some South Korean shipbuilders have voiced optimism that a green hull approach is more politically realistic than outright U.S. purchase of their vessels and could circumvent ITAR restrictions.[103] South Korean builders have also noted that while the green hull approach would be less complex than modular cooperation, they have concerns about postdelivery systems integration and the need for intensive communication with U.S. prime contractors.[104] Japanese shipbuilders have also raised concerns about the economics and quality control of the green hull approach.[105]

Some allied shipbuilders have expressed confidence that module production could decrease costs and timelines for U.S. ships, particularly if subcontractors are shared between the shipyards, creating commonality and efficiencies of scale from the start. For example, the MOU signed between Hyundai and HII has a stated goal of exploring distributed shipbuilding.[106]

Both South Korean and Japanese yards have the capacity to carry out this form of cooperation. Modular production is central to how their yards function and is a core element of the cost competitiveness that has driven their business success. Several South Korean shipbuilding firms, for example, already make extensive use of ship modules constructed abroad in yards in Vietnam and Singapore, among other locations, with final assembly in South Korea.[107]

Constructing a green hull is somewhat similar to constructing an entire ship, though there are differences in terms of leaving access to core systems to be added later. South Korean and Japanese yards have the facilities, workforce, and know-how to carry out green hull construction; however, constructing only modules or green hulls could use up productive capabilities the yards could otherwise deploy for potentially more profitable full-ship construction. This may reduce the yards' willingness to cooperate, or it may drive up their expenses to compensate for their opportunity costs.

U.S. Political and Regulatory Viability

While the Navy under the Trump administration has signaled openness to considering modular construction approaches, domestic political opposition remains. The Navy's FY 2027 budget documents include a request for $1.85 billion in R&D funds to study "the ability of allied shipbuilding companies to build ships or components."[108] At the same time, both modular and green hull coproduction would likely encounter opposition from U.S. industry and labor while contending with statutory restrictions that explicitly prohibit foreign construction of major vessel components.

Some U.S. shipbuilders, maritime unions, and aligned experts view modular or green hull coproduction as no different from buying complete foreign-built ships, which they have consistently opposed. This perspective is summarized in the words of one U.S. shipbuilding advocate, who called coproduction with foreign shipyards a "disastrous mistake" that would involve "kicking American shipyard workers to the curb."[109] Many political figures remain firmly behind maintaining and even strengthening protectionist restrictions.[110]

Some shipbuilders—along with their congressional representatives—oppose coproduction because it may threaten domestic shipyards' revenue while offering only limited opportunities for certain segments of the maritime industrial base. Final outfitting work, while valuable, is less remunerative than full-ship construction, so if substantial portions of a vessel are fabricated in South Korea or Japan, U.S. yards lose out on the potential revenue and profit from labor hours, change orders, and materials.[111] U.S. shipbuilders and their advocates also warn that coproduction might be a first step toward the United States purchasing foreign-built ships, which they oppose.[112]

However, smaller U.S. yards and facilities that lack the capacity to bid on full-ship contracts might gain opportunities as module assembly or green hull outfitting yards.[113] Additionally, equipment and sustainment suppliers, particularly weapons and electronics system subcontractors, receive business regardless of where construction occurs and would benefit from increased volume.[114]

Regulatory barriers compound political opposition. Title 10, Section 8679, of the U.S. Code (also referred to as the Byrnes-Tollefson amendment) explicitly prohibits the construction of U.S. naval vessels, or "major component[s] of the hull or superstructure," in foreign shipyards.[115] The statute includes a presidential waiver provision, but annual defense appropriation acts, including FY 2026 appropriations, consistently contain non-waivable provisions that prohibit the use of

funds for constructing naval ships at foreign shipyards.[116] The Coast Guard, as a component of the Department of Homeland Security (DHS), is not subject to this DOD-specific restriction on the use of the shipbuilding and conversion funds in the Navy budget. This enabled the Trump administration to forge the icebreaker deal for the ASC with Finnish and Canadian companies via presidential waiver.

KEY TAKEAWAYS

Coproduction is a promising pathway for cooperation if policymakers wish to balance delivery speed with bolstering U.S. capacity. The Navy already encourages shipyards to distribute shipbuilding across the United States; subcontracting work for existing U.S. ship classes to allied shipyards would accelerate the number of ships the United States can field across the next decade. It would require investments in U.S. shipyards to enable them to assemble these modules. But while some construction dollars would flow-overseas, these investments could bolster U.S. shipbuilding capacity and competitiveness in the long term. The program could also serve as a way of accelerating U.S. adoption of cutting-edge modular production methods.

The fundamental challenge is that modular and green hull coproduction combine the disadvantages of both domestic and foreign production while capturing only some of the benefits. Both would be more expensive and time-consuming than building entire ships abroad because of coordination challenges, transportation costs, and management overhead. Either approach would offer diminished profit potential for the legacy domestic maritime industry relative to purely U.S.-based construction. Both face the same type of political and regulatory barriers that the purchase of entirely foreign-built ships does because U.S. law classifies foreign-built modules or green hulls as equivalent to foreign-built ships.

The green hull approach is generally regarded as easier to implement by international shipbuilders and U.S. experts, though some have expressed concerns about quality control.[117] It is possible that the assembly phase of this program could be carried out in less-advanced shipyards in the domestic industrial base, enabling broader distribution of shipbuilding labor and dollars across the U.S. ecosystem—assuming that quality and technical difficulties can be overcome.

By contrast, modular coproduction offers the potential for greater domestic participation and workforce skill training for the U.S. maritime industrial base. However, implementing this approach would require Congress to not place restrictions on shipbuilding funding in annual DOD appropriations acts that mandate full construction in the United States. A program could be structured as a bridge with built-in transition mechanisms to secure political support. Initially, ships might involve 60–70 percent foreign module content, decreasing to 50 percent for mid-program ships and ultimately achieving predominantly domestic construction. Support and auxiliary vessels may represent better candidates than surface warfare ships given their similarities to commercial designs that foreign shipyards have experience with.

A viable program model might also include technology transfer and workforce development provisions, with allied shipbuilders required to train U.S. workers, share production methodologies, and support U.S. yards in developing modular production expertise.

Purchase of Foreign Ships

Not all maritime nations have the capacity to produce naval vessels within their country or to meet all their naval needs. Those nations often contract with shipyards in partner countries to procure ships and scale naval warfighting capability. Some countries may focus on building particular classes of ships while importing others. Earlier analysis suggests foreign acquisition typically occurs when (1) domestic capacity is insufficient, unaffordable, or slow, (2) to achieve cost-prohibitive or highly specialized capabilities, (3) to balance efficiency and domestic participation with multiyard contracts, postdelivery outfitting, or phased-in domestic participation, (4) or to achieve technology transfer and workforce development.[118] In short, countries may import ships for different reasons, and it is a common strategy to build a national navy using imported ships or a mix of imported and domestically produced ships.

PREVIOUS OR CURRENT CASES

Although there are many examples of nations procuring ships from overseas, the U.S. Navy has limited recent experience with this approach and last procured foreign-built ships in the early 1980s from European shipyards.[119] These were fast sealift ships for Military Sealift Command rather than combatants. To overcome challenges in the U.S. naval shipbuilding industrial base, numerous analysts have proposed procuring naval vessels built overseas, especially support ships.[120] Former Congressional Research Service analyst Ronald O'Rourke has maintained that if the Navy needed to procure an additional quantity of ships in the near term above what U.S. industry can produce, the only way to do this would be to buy foreign-made ships.[121]

As with the other pathways, foreign ship purchase could take multiple forms, each with distinct trade-offs between speed, cost, and fleet compatibility. The two approaches the United States could consider are (1) purchasing ships based on existing allied designs or (2) contracting with foreign yards to produce U.S. designs.[122]

Table 2: Selected Examples of International Foreign Ship Purchases

Builder	Recipient	Year of deal	Vessels	Details
Finland	United States (joint design)	2025	Up to 11 icebreakers (ASC)	Phased joint construction; 4 to be built in Finland, up to 7 in the United States by Davie and Bollinger[123]
United Kingdom (designer)	South Korea	2025	1 submarine rescue vehicle	Entirely built in the United Kingdom[124]
Japan (designer)	Australia	2025	11 frigates (upgraded Mogami class)	First 3 to be built in Japan; final 8 to be built in Australia[125]
Spain (designer)	Saudi Arabia	2018	8 Avante 2200 corvettes	Phased joint construction[126]
Germany	Israel	2015	4 corvettes	Some domestic outfitting[127]
South Korea	United Kingdom	2012	4 Tide-class tankers	Joint design; some domestic outfitting[128]
Germany	United States	1982	8 container ships (T-AKR 287-294)	Deployed to supply Middle Eastern bases and operations[129]

Source: CSIS.

PATHWAY EVALUATION

Ship Delivery Time

Allied shipyards could notionally produce and deliver ships relatively quickly, provided there is clarity on the design and access to the necessary components in the supply chain. South Korean and Japanese shipyards are accustomed to working quickly on shipbuilding projects, primarily commercial ones but also naval ones. Allied yards predominantly build commercial vessels, a deeply competitive market where success depends on delivering ships on time and at cost. Japanese and South Korean shipyards meet the challenge by focusing on schedule and producibility while investing in new production technologies.[130] South Korea's acquisition practice is typically to fix requirements and limit change orders during the build process. Those lessons and best practices,

such as preoutfitting of modules, can apply to naval shipbuilding, even with different requirements. In practice, South Korea's adaptations of U.S. naval designs for its own fleet have been delivered more quickly and consistently than their U.S. counterparts, though the differences between these and U.S. vessels make specific estimates of time savings difficult.[131]

Procuring foreign-designed ships would be the fastest way to add ships to the U.S. naval fleet and would take advantage of existing production practices and supply chains. The shipbuilders would need to work with their customer—in this case, the U.S. Navy—to understand any additional requirements. Further work would be necessary to incorporate U.S. naval systems on the vessels, and sensitive classified systems would likely need to be added in the United States.

Having foreign yards construct U.S. designs under license would require additional engagement to enable the allied shipbuilder to work with complex and often unique U.S. Navy requirements. Potential challenges include compliance issues and ensuring that the correct processes are followed and security concerns are met. Foreign shipyards would have to follow the U.S. Navy's specific survivability specifications, systems integration protocols, and operational requirements.[132] At the basic production level, foreign yards typically use the metric system instead of the imperial system. Differences require either retooling or negotiation, though these delays are not insurmountable. Complex systems such as the U.S. Aegis system have been incorporated into allied ships by partner yards in the past.[133]

Cost Implications

Japanese and South Korean naval ships are constructed in shipyards that build both commercial and naval vessels, where the push to be competitive in a commercial market increasingly dominated by Chinese ships forces builders to invest in increasing efficiencies and driving down costs. These investments, improvements, and management practices can be incorporated into naval production, where, for example, producibility is emphasized during the design phase.[134]

Procuring existing allied designs where the shipyard has already built ships of the specified design would likely be less expensive than purchasing a license-built U.S. design in terms of up-front purchase price. For example, comparing the cost of the FFG-62, DDG-51, and T-AO classes to the South Korean Daegu-, Sejong the Great-, and Soyang-class vessels suggests that direct purchase of South Korean designs could yield vessels that are 50–70 percent cheaper than their U.S. counterparts, even considering that these U.S. ships have different standards that also drive costs.[135] The South Korean government states that its *Jeongjo the Great* Aegis-equipped destroyer was built in 38 months at a cost of around $1 billion, whereas the Flight III Arleigh Burke has an approximately four-year construction period and a price of $1.4 billion.[136] However, life-cycle logistics and MRO costs would be increased by the introduction of additional ship variants into the fleet, new parts, and different technical standards. Given that MRO typically accounts for a large proportion of a vessel's lifetime cost, this could be a significant cost burden for this option in the long run.[137] Moreover, given that much of the cost of a modern warship is often its complex

weapons and combat system—which in these allied designs is often U.S.-built or U.S. derived—the cost savings on the hull may be significant but still not drive down the cost of the overall naval asset as much as hoped.[138]

Producing U.S. designs rather than allied designs in allied yards would increase production costs for many reasons. The U.S. Navy often evolves designs over the course of a build, especially for the first-in-class ship, which adds costs. South Korean yards, for example, typically require design maturity before they start laying the keel. These shipyards focus on "design for producibility," a term of art for bringing ease-of-production considerations into the ship design process. As a result, their naval ships are often larger than comparable U.S. ships to enable easier worker access and build processes. Japanese ship construction practice also emphasizes minimal design changes during construction.[139]

Bolstering U.S. Shipbuilding Capacity

Building ships abroad does not contribute to enhancing U.S. domestic shipbuilding capacity unless included as part of a hybrid strategy (discussed later), wherein foreign purchase is paired with a contractual requirement to invest in U.S. yards, as is commonly done in "offset" strategies. If ship orders given to foreign yards were restricted to classes of ships that U.S. shipyards do not have the capacity or economic incentive to build, or if the Navy were to procure ships to the extent that U.S. shipyards' order books were overflowing, then sending orders abroad may not negatively affect the naval shipbuilding industrial base directly. However, this would still not contribute to U.S. capacity in the long run.

Allied Industry Willingness and Ability

Allied shipbuilders have indicated an interest in constructing ships for the U.S. Navy. In interviews, they have suggested that they could dedicate sections of their yards to U.S. naval construction if they received long-term contracts.[140] South Korean yards' success in building modified U.S. designs makes them confident they can deliver ships to the U.S. Navy at a substantially lower cost.[141] From their perspective, building their own designs would be easiest. Working with U.S. naval designs would be possible but challenging; along with handling different standards, foreign yards have highlighted the issue of managing requirements creep, given the allied yards' practice of constructing mature (i.e., fixed and unchanging) designs.

Moreover, for exporting nations, selling ships has the same benefits as selling other exports, including market expansion and support of the local economy, risk diversification, and economies of scale. Allied governments have strong incentives to encourage their builders to sell to the United States, which would bolster their maritime industrial bases while simultaneously strengthening their defense partnerships with a crucial ally.

A potential challenge for partner shipyards is that they often have an order book with scheduled deliveries for several years into the future. Taking on the construction of U.S. vessels could put their other business lines at risk and increase costs if the shipyards required compensation.[142]

U.S. Political and Regulatory Viability

For nations that traditionally construct their own warships—including the United States—purchasing ships from overseas represents a change in strategy with significant barriers and internal resistance to overcome. Purchasing naval ships from partners and allies faces strong headwinds, with the most profound challenge based in U.S. law. The Byrnes-Tollefson amendment prohibits U.S. armed forces' vessels from being built in a foreign shipyard, though it can be waived by the president.[143] Members of Congress have made consistent efforts to tighten these restrictions in annual National Defense Authorization Acts (NDAAs).[144] While the president can waive the restriction, other restrictions in annual DOD appropriations acts on the use of Navy shipbuilding funds cannot be waived by the president acting alone; they would require the support of Congress.[145]

The Trump administration has expressed concrete interest in exploring this pathway. As mentioned in the section on coproduction, the Navy has requested $1.85 billion to study the potential of allied shipbuilding companies to build ships for the United States.[146] The administration also issued a presidential waiver of the Coast Guard's version of the Byrnes-Tollefson amendment to have ASCs built abroad in Finland, demonstrating both the desire and will to carry out the purchase of foreign vessels.

U.S. shipbuilders have consistently opposed outsourcing naval vessel construction. They have claimed that they are far from full capacity and that current naval procurement barely supports their continued business health.[147] Unions such as the International Association of Machinists and Aerospace Workers have warned that outsourcing would undermine national security.[148]

These challenges, though difficult, are not insurmountable. The possibility of a presidential waiver in case of a national security emergency means that if there were no other alternative to growing the fleet, it would be possible to do so by buying foreign ships for the Navy—if Congress does not continue to place restrictions on naval funding.

KEY TAKEAWAYS

Purchasing foreign-built ships is likely the fastest and most economical means of expanding the fleet. This would especially be the case with auxiliary and support vessels, which are broadly simpler and feature less-sensitive technologies than surface combatants. South Korean yards have experience delivering such vessels to close U.S. allies. However, this pathway is not applicable to the production of nuclear-powered vessels, such as submarines and aircraft carriers, which the United States' East Asian allies have never produced. It also faces significant regulatory barriers and domestic political opposition and pursuing it in isolation would not directly strengthen the U.S. maritime industrial base.

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Ultimately, the potential of leveraging the direct procurement of foreign-built vessels from allied shipyards depends on strategic and political priorities. If U.S. policymakers' top priority is speed, buying foreign ships is a strong option. However, if increasing domestic shipbuilding capacity is policymakers' top priority, procuring ships built in foreign yards will not yield tangible progress. Political and regulatory challenges make buying foreign ships difficult unless sufficient political will is mustered to change the current policy landscape.

The successful acquisition of foreign-built surface combatants is partially contingent on whether U.S. naval procurement standards become more flexible. South Korean adaptations of U.S. designs—most prominently Aegis-equipped Sejong the Great–class destroyers—have been produced far more economically and quickly than their U.S. counterparts. However, forcing international shipbuilders to meet highly unique U.S. Navy requirements in both ship design and construction technique would create significant learning curves and reduce cost savings.

While purchasing foreign variants would realize significant up-front cost savings, they would reduce overall fleet commonality, potentially adding complexity and expense to the maintenance enterprise. It is unclear whether these lifetime costs would exceed the savings realized by purchasing foreign designs. European navies have approached such issues by jointly developing designs with construction partners, but the duration of modern surface combatant design processes would negate the speed-related advantage of this pathway, and the outcome of the Constellation program illustrates the risk of such an approach in the U.S. context.

The main regulatory obstacle to the acquisition of foreign ships is funding-related. The statutory Byrnes-Tollefson prohibition contains a broad presidential waiver clause, but recent NDAAs have typically barred the use of appropriated funds for the acquisition of foreign-built ships. Reform would either require dropping such language from future NDAAs or securing funding elsewhere, as the Office of Management and Budget has reportedly explored.[149]

Foreign Cooperation on Maintenance, Repair, and Overhaul

Another potential pathway for cooperation involves expanding the MRO of U.S. ships performed by allies and offers a potential way to reallocate limited U.S. shipyard capacity toward new construction. This would, in theory, increase U.S. new-build capacity, enhance the Navy's ability to receive MRO in operating theaters, and strengthen relationships with allies. However, there are a number of challenges to this approach, particularly the expense and time required to convert shipyards from repair to new-build and current legal restrictions on performing MRO overseas.

Currently, major repair activities for U.S. nonnuclear surface ships are conducted by 12 private companies at privately and publicly owned facilities in fleet concentration areas where U.S. Navy ships are homeported, primarily Mayport, Florida; Norfolk, Virginia; Pearl Harbor, Hawaii; San Diego, California; and Seattle/Everett, Washington.[150] For surface ships based overseas, repairs are conducted by both U.S. Navy–operated facilities and private contractors.[151] The United States has

recently expanded opportunities for allies, including Japan and South Korea, to perform major MRO work on U.S. naval vessels at their private shipyards.[152]

The U.S. Navy's 7th Fleet, the largest of the service's forward-deployed forces, is headquartered in Yokosuka, Japan, and is supported by the U.S. Naval Ship Repair Facility and Japan Regional Maintenance Center (SRF-JRMC). SRF-JRMC is the Navy's largest overseas maintenance facility and is responsible for maintaining surface ships homeported in Yokosuka, Japan.[153] SRF-JRMC also maintains a detachment in Sasebo, Japan, and its own shipyard.[154] Both maintenance centers employ a Japanese workforce and conduct maintenance through a cost-sharing agreement between the United States and Japan.[155]

SRF-JRMC in Yokosuka directly performs the majority of the total maintenance workload (two-thirds in FY 2018 according to estimates provided to the GAO) with the remainder performed by local contractors.[156] Most contracted work is performed at Navy facilities.[157] However, private Japanese shipyards have also conducted maintenance on U.S. Navy ships. In 2019, Mitsubishi Heavy Industries performed repair work on the destroyer USS *Milius*. The company also took a major step forward in its maintenance work with the U.S. Navy by becoming the first Japanese yard to bid on and win a regular overhaul (ROH) contract for the USS *Miguel Keith*, a Puller-class expeditionary mobile base, at Mitsubishi Heavy Industries in 2025.[158]

The U.S. Navy has also been ramping up maintenance of noncombatant vessels at private shipyards in South Korea. Previously, South Korean shipyards had only conducted less complex voyage repairs on U.S. Navy ships.[159] However, in March 2025, Hanwha Ocean completed the seven-month ROH of the USNS *Wally Schirra*, a Lewis and Clark–class dry cargo ship after becoming the first South Korean yard to bid on and win an ROH contract for a Military Sealift Command vessel.[160] Hanwha also completed maintenance of the Kaiser-class underway replenishment oiler USNS *Yukon* and secured an additional contract for the Lewis and Clark–class dry cargo ship USNS *Charles Drew*. Hyundai subsequently completed an ROH of the Lewis and Clark–class ship, the USNS *Alan Shepard,* in January 2026, and won a second MRO contract for a ship of the same class.[161] Other South Korean shipyards have also signed Master Ship Repair Agreements with the United States, allowing them to conduct MRO work on U.S. Navy vessels.[162]

Current regulations constrain the U.S. Navy from conducting full-scale MRO operations in foreign yards. Under Title 10, Section 8680, of the U.S. Code, U.S. naval vessels homeported in the United States are generally prohibited from receiving MRO services in foreign shipyards.[163] Around two-thirds of all U.S. Navy ships are homeported in the United States.[164] When deployed vessels require MRO overseas, U.S. workers must perform the work unless otherwise authorized by the secretary of the Navy.[165] U.S. homeported ships may schedule voyage repairs while deployed overseas in order to continue their deployment.[166]

In a potential conflict scenario, work on U.S. Navy ships homeported in the U.S. may be conducted in foreign yards if "necessary to correct damage sustained due to hostile actions or interventions."[167]

The Navy must notify Congress within 30 days if foreign workers perform repairs overseas. Battle damage repairs are unlikely to generate political resistance, as relying on in-theater foreign labor would improve efficiency and reduce operational disruption during a potential conflict.[168]

STRATEGIC AND OPERATIONAL BENEFITS OF EXPANDED MRO COOPERATION

Expanding MRO cooperation with allies has the potential to assist with the Navy's strategic and operational positioning. Leveraging allied maintenance capacity would enhance the Navy's ability to conduct forward sustainment, a priority for the United States. Forward repair efforts can leverage existing defense industrial cooperation initiatives such as the Regional Sustainment Framework and the Partnership for Indo-Pacific Industrial Resilience, as well as the Defense Industrial Cooperation, Acquisition, and Sustainment forum with Japan.[169] By establishing the ability to repair and sustain larger numbers of ships closer to potential conflict areas in the Indo-Pacific, the United States could potentially support extended deployments—including during wartime—by reducing the need to recall ships to the U.S. mainland for repairs.

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Beyond the operational and strategic benefits, using allied shipyards to repair U.S. vessels in theater could also reduce costs because of their lower labor expenses, greater efficiency, and proximity to likely areas of engagement.[170] Aside from the expense and effort connected with keeping crews in proximity to their ships, the United States may be able to save money on MRO contracts with foreign shipyards where labor costs are lower and work volumes are often higher.[171] Conducting repairs in theater would reduce the resourcing and operational cost of transiting a vessel back to the U.S. for maintenance. Transporting sensitive government-furnished equipment to these allied repair yards could eat into these savings, however, and add time back in when unexpected work requires materials with long lead times to be shipped across the Pacific.

MRO cooperation may also serve to incentivize allied participation in domestic shipbuilding revitalization efforts as part of a hybrid multi-pathway approach. South Korean and Japanese shipyards have expressed willingness to perform more U.S. Navy MRO work, but they remain cautious about the economic case for doing so.[172] South Korean government officials view MRO as a potential avenue toward greater cooperation on shipbuilding including via the three pathways laid out in the preceding chapters.[173] Similarly, South Korean shipbuilding industry representatives have expressed interest in doing MRO for the United States as a means of building credibility and trust

for deeper bilateral industrial cooperation on broader shipbuilding initiatives.[174] However, South Korean shipbuilders would likely need to expand their facilities and make other investments to serve as a more active MRO partner for the United States.

Japanese yards have greater experience in conducting maintenance activities on U.S. Navy vessels and benefit from proximity to the U.S. 7th fleet's homeport and U.S. Navy facilities in Yokosuka. Their interest, as stated by both industry and government in 2025 interviews for this research, lies chiefly in repair cooperation for the business and strategic benefits of repairing U.S. ships rather than in building ships for the United States, at least to start.[175]

ALLIED MRO PAIRED WITH U.S. YARD CONVERSION

The idea of pairing overseas MRO cooperation with the conversion of U.S. repair yards into new-build facilities solves some political hurdles but introduces its own set of challenges. If U.S. policymakers focus predominantly on bolstering shipbuilding capacity in the United States, repair yard conversions offer one path to turn repair capacity into build capacity and offset those losses with allied help that does have the aforementioned strategic benefits.

U.S. repair yards could possibly be converted to shipbuilding yards without unduly damaging the vital yet strained U.S. ship repair industrial base. The well-documented problems in the nonnuclear surface ship repair sector stem less from a shortage of aggregate capacity—the GAO reported in 2025 that some repair companies said they often had more capacity than the Navy used—than from a confluence of workload instability and oversight and performance issues, compounded by labor pool challenges.[176] Allies taking on MRO work is not necessarily needed to generate excess capacity in the U.S. repair industrial base which could then be converted to shipbuilding: This excess "convertible" capacity already exists within certain segments of the U.S. repair industrial base.

Bundling together foreign MRO with U.S. repair yard conversion does have the strategic benefit, however, of securing work and jobs for struggling repair yards via conversion.[177] U.S. repair yards struggling with insufficient naval work may possess valuable industrial-zoned waterfront real estate near skilled labor pools and thus could be valuable targets for "brownfield" redevelopment.[178]

This conversion of repair yards could be done in coordination with U.S. allies, as is occurring at Gulf Copper. In 2025, Davie Defense, a group sharing ownership with Helsinki Shipyard, a prominent icebreaker builder, and Chantier Davie, Canada's largest shipyard, purchased Gulf Copper. The small yard in Galveston, Texas, catered primarily to offshore industry, and the new ownership has embarked on a $1 billion modernization effort to convert it into an "American icebreaker factory" by constructing seven new enclosed assembly bays and hiring over 2,000 new workers.[179]

The jobs and business potential of redevelopment could help temper a major challenge for foreign MRO: U.S. political opposition from the ship repair industry. U.S. industry representatives have expressed concern about the offshoring of U.S. MRO work. Matthew Paxton, president of the Shipbuilders Council of America, has testified before Congress, "Outsourcing these critical U.S. jobs

[would] devastate our domestic ship repair capabilities . . . [and] further reduce the Navy's ability to meet its on time maintenance goals."[180] While such opposition may present political challenges, a program that was structured to convert domestic maintenance capacity toward new construction could reduce concerns over local workforce and economic impacts. Pairing foreign MRO with U.S. shipyards could effectively "bundle" these separate concepts together to make foreign ship repair more palatable.

However, converting domestic MRO yards to new-build yards would likely be a complex multiyear undertaking that would require investment. Yard conversion requires not just an overhaul of physical infrastructure, but also a comprehensive retraining of the workforce and the formulation of new work processes. The skill sets, processes, workflows, and cultures of repair yards and build yards are fundamentally different: Repair yards are project-oriented and heavily dependent upon workers' ability to assess and respond to issues as they come up, whereas new-build yards are process-oriented, most often following a routine assembly and blueprint designs.[181] Maintenance work is geared toward fixing machinery and installing new electronics, and it rarely utilizes modular assembly.[182] The work at new-build yards involves cutting and welding metal and assembling modules. Converting the workforce would likely require significant time and effort for retraining or finding and training new workers.[183] Hence, such conversions would be a substantial and time-consuming investment rather than an immediate solution to expanding U.S. shipbuilding capacity.

These conversions require significant investment in equipment and talent, design and approval process, and years of construction and often the reconfiguration of the physical layout of the shipyard—all of which is expensive.[184] Davie's plans for Gulf Copper require a total reconstruction of the facility, with all existing buildings and finger piers demolished to make way for enclosed assembly halls and new slipways.[185]

Converting existing MRO yards into new-build yards could increase the number of facilities building U.S. Navy vessels and expand U.S. shipbuilding capacity in the long term. However, if these conversions were to take place, the United States likely could not rely on these shipyards for shipbuilding operations for several years, given the necessary changes to shipyard infrastructure and technology, as well as workforce training.[186] A faster solution could be expanding module or parts production at these repair yards—or converting them to dedicated outsourced module producers—which could allow for expanding industrial base capacity if implemented as part of the nation-as-a-shipyard strategy.

KEY TAKEAWAYS

Expanding MRO activities overseas to convert maintenance yards into new-build yards could notionally increase the total shipbuilding capacity of the U.S. industrial base. The conversion of repair yards would also alleviate the search for suitable waterfront sites for the construction of entirely new shipyards. Simultaneously, the United States could benefit from repairing its ships

closer to the Indo-Pacific theater. Allied shipyards have expressed willingness to take on additional maintenance work, particularly as a means of establishing a relationship with the U.S. Navy.

However, the equipment, layout, and work processes of new-build yards are highly dissimilar to repair yards. Conversion would require the reconstruction of many repair yards and the retraining of their workforce. Consequently, this pathway would face difficulties in speed and cost. Additionally, recent assessments of the U.S. conventional surface ship repair yard ecosystem have identified surplus capacity. This suggests that a limited number of yards could be converted without the need to displace work overseas and without the same political hurdles.

Hybrid Approaches in Action

A hybrid approach to shipbuilding cooperation entails combining two or more of the aforementioned pathways and has the potential to add ships to the fleet quickly while strengthening domestic industry and retaining U.S. political support by incentivizing investment in domestic production by allied industry.

The most recent example of a hybrid approach to U.S. shipbuilding cooperation is the ASC program, commonly referred to as the Icebreaker Collaboration Effort (ICE) Pact. This collaboration between the United States, Canada, and Finland marked a notable departure from traditional U.S. procurement strategy. It was undertaken by the U.S. Coast Guard, meaning it fell under DHS rather than DOD procurement regulations and processes. Combining foreign construction, phased onshoring, and knowledge transfer via personnel exchange, the ASC program is a hybrid model that uses foreign yards to build ships in the near term while rebuilding domestic shipbuilding capability via investment in the U.S. industrial base and sharing expertise through coproduction. A similar example is Australia's planned procurement of the Mitsubishi Heavy Industries–designed Mogami-class frigate, where the lead ships will be built in Japan and subsequent ones in Australia.[187]

This chapter examines the details of the ICE Pact/ASC model as a hybrid approach for shipbuilding cooperation, analyzes its legal and workforce architecture, and assesses its implications for future cooperation with Japan and South Korea.

Origins of Icebreaker Cooperation

The U.S. Coast Guard currently requires at least eight icebreakers to fulfill its statutory mission, but presently operates three.[188] Russia has a fleet of approximately 40 icebreakers, with more under construction, including nuclear-powered ships capable of breaking ice up to 14 feet thick.[189] China's self-designation as a "near-Arctic state" and subsequent "Polar Silk Road" investments in Arctic infrastructure and icebreakers also pose a long-term concern.[190]

In June 2020, President Trump directed agencies to develop a polar icebreaker fleet "operationally tested and fully deployable by Fiscal Year 2029."[191] The secretary of state was directed to identify qualified nations to partner with on icebreaker construction. Subsequently, the United States evaluated options to lease or purchase newly built vessels from Finnish shipyards. Helsinki Shipyard reportedly offered delivery timelines of approximately 24 months at roughly one-fifth the cost of U.S. domestic production.[192]

The ICE Pact framework was established in a November 2024 MOU in which the United States, Canada, and Finland agreed to collaborate on icebreaker construction. In April 2025, the Coast Guard announced a request for information for the ASC, a program intended to supplement the delayed, overbudget polar security cutter program.[193] That October, President Trump issued a presidential memorandum authorizing construction of up to four ASCs abroad under Chapter 14, Section 1151(b) of the U.S. Code (the Coast Guard version of Title 10, Section 8679), which prohibits foreign construction unless waived by the president.[194] This waiver enabled foreign construction while directing the Coast Guard to "phase the construction of ASCs in a manner that promotes the on-shoring of expertise necessary to build follow-on icebreakers domestically."[195] While Department of the Navy shipbuilding funds are restricted from use for overseas procurement in recent NDAAs, the U.S. Coast Guard's DHS funding does not face these congressional restrictions, allowing it to acquire foreign-built vessels with such a presidential waiver.[196]

The Coast Guard formally announced ASC program partners in December 2025.[197] Contracts for up to 11 ASCs were divided between Canadian shipbuilder Davie—at its Finnish yard and its recently acquired U.S. yard—and a separate U.S.-Finnish consortium consisting of Finnish-based Rauma and the U.S.-based Bollinger.[198]

Two Arctic Security Cutter Approaches

Under the first arrangement, Davie will construct two ASCs at its Helsinki Shipyard and subsequently three ASCs in Texas through its newly acquired U.S. shipyard, formerly an offshore energy repair and support yard.[199] The Arctic Security Cutter model consolidates international design expertise and initial construction with a revitalized U.S. yard and workforce training, all under a single corporate umbrella. U.S. workers will be embedded at the Finnish yard before transferring to Davie's new Texas facility, enabling direct knowledge transfer.[200]

The second contract award reflects a more distributed structure. Rauma will build the first two vessels in Finland using a Seaspan/Aker Arctic–derived design. The remaining four vessels will be constructed in the United States by Bollinger to the same design. The U.S. Coast Guard expects delivery of the first Finnish-built vessel in 2028 and the first U.S.-built vessel in 2029.[201]

Unlike the vertically integrated Davie approach, the second contract distributes design, construction, and learning across firms. It resembles cooperative industrial agreements similar to those being considered by firms such as Hyundai, which has signed MOUs with multiple U.S. shipbuilding and shipbuilding-adjacent firms to pursue technology sharing and coproduction without direct acquisition of a U.S. subsidiary.

By distributing production across two builders, the Rauma/Bollinger approach insulates against the risk of yard-related program issues (e.g., cost overruns and schedule delays) at either of the shipyards. The use of a proven design serves as a further risk-reduction mechanism. By granting Bollinger up to four vessel contracts, the structure allows for U.S. domestic production gains, including possible insights gained from Rauma, as well as from Seaspan and Aker Arctic on the design side.

However, the same distributed structure from which the parallel coproduction strategy derives certain strengths also poses risks. One is the possibility that technology transfer may be more difficult than in the Davie case, where the same firm owns both shipyards. That said, cross-firm technology transfer has successfully occurred in U.S. history, notably between General Dynamics NASSCO and DSEC, which started in 2006 and was reaffirmed and expanded to include Samsung Heavy Industries in 2025.[202] Another risk concerns compatibility. Different shipbuilders may possess divergent quality assurance practices and technical standards. This can cause compatibility and long-term sustainment issues as ships within the same nominal class differ significantly and do not have interchangeable components. However, this divergence can occur even in entirely domestic programs that simply involve more than one yard.

A defining feature of the ASC program is its emphasis on building U.S. shipbuilding capacity, especially via workforce development. Skilled labor shortages have been a significant structural problem for the U.S. shipbuilding industry for years. Recognizing this, ASC partners have embedded workforce development as a core pillar.[203] The U.S. Department of Labor allocated $8 million for an International Shipbuilding Fellowship to send U.S. workers to Finland.[204] Davie's plan to train U.S. workers at Helsinki Shipyard before returning them to its Texas facilities exemplifies the knowledge transfer mechanisms intended to build sustainable U.S. capacity. Davie noted its decision to locate icebreaker production in Texas was motivated by the area's robust labor pool, and has launched its own training program for local workers.[205]

Implications for Future Cooperation

Icebreaker cooperation offers four principal lessons for potential broader shipbuilding cooperation with Japan and South Korea. First, foreign construction can be politically viable if it is explicitly linked to domestic industrial renewal rather than treated as a substitute for it. Second, workforce development and exchange mechanisms are a prerequisite for industrial regeneration. Third, combinations of investment, partnership, coproduction, or even foreign purchase may be both productive and politically viable. Fourth, legal and regulatory harmonization is crucial for scaling allied shipbuilding integration. This will be harder for the U.S. Navy than for the U.S. Coast Guard.

Overall, well-executed hybrid approaches may effectively mitigate the tradeoffs between cost, speed, and domestic capacity that characterize individual approaches.

Overall, well-executed hybrid approaches may effectively mitigate the tradeoffs between cost, speed, and domestic capacity that characterize individual approaches. One downside of hybrid approaches is that they are more complex forms of cooperation, given the many moving parts and the fact that basic defense industrial collaboration is already hard to do effectively. The choice between different hybrid approaches to coproduction beyond the ASC program will depend on U.S. political tolerance for foreign ownership, the desired balance between speed and structural transformation, and foreign shipbuilders' capital access and risk tolerance.

The ASC program demonstrates that international cooperation and hybridization are possible. Whether it becomes a template for broader allied shipbuilding integration or remains a unique response to the Arctic security emergency will depend on the depth of its workforce and regulatory synchronization.

Conclusion

The United States' shipbuilding challenges cannot be traced to any single point of failure. They result from a web of systemic issues in both government and industry that collectively hinder the shipbuilding enterprise's ability to build ships at the speed, scale, and cost the Navy requires. This report does not seek to suggest a single optimal approach to address this challenge. Each pathway involves trade-offs in relative speeds, costs, and improvements to U.S. industrial capacity; all are subject to both allied industry's willingness and U.S. lawmakers' permission. Table 3 provides a comparative analysis of these metrics.

Allied cooperation is not a panacea. But policymakers with distinct policy preferences can leverage allied capability to solve discrete problems.

Allied cooperation is not a panacea. But policymakers with distinct policy preferences can leverage allied capability to solve discrete problems. If U.S. policymakers' focus is solely on rebuilding U.S. domestic capability, then encouraging allied investment in, partnership with, or acquisition of U.S. shipyards would be a key pathway. This would likely not be a fast or cheap solution, and strong outcomes require regulatory reform to enable deeper coordination between shipyards' foreign headquarters and their U.S. partners or subsidiaries.

If, instead, U.S. policymakers' top priority is providing ships for the fleet as quickly as possible, then buying foreign-built/designed ships is the most immediate option. But this pathway would not bolster the capacity of the U.S. maritime industrial base if pursued in isolation. Although foreign ship designs are cheaper than equivalent U.S. designs, they could end up costing more to sustain due to a lack of commonality with existing U.S. ship classes. Acquisition of foreign-built vessels would also require the expenditure of significant political capital to change existing laws—at a minimum removing restrictions on shipbuilding funding to allow for foreign construction with a presidential waiver, which the Byrnes-Tollefson amendment already permits.

Modular coproduction theoretically splits the difference between investing in U.S. domestic capacity and prioritizing deliveries to the fleet. It leverages allied capabilities to scale the production of U.S. ships and could reduce cost and ship construction time following a significant amount of start-up time and capital, though perhaps not to the same extent as focusing on allied partnership and investment. While it might be presentable as a compromise, it would face strong opposition from U.S. domestic industry and require political reforms on the same order as directly purchasing foreign-built ships.

In practice, the cooperation pathways outlined in this report need not be implemented in isolation. Recent examples of cooperation—ICE Pact in the United States and Australia's procurement of the Mogami class—showcase a hybrid model, with lead ships built abroad and subsequent vessels produced domestically after investments by foreign shipyards. The ASC program demonstrates that the United States has the capacity and will to engage in international shipbuilding cooperation through such a hybrid approach. Hybrid cooperation allows investment, partnership, coproduction, and even foreign purchases to work hand in hand to make a pathway both productive and politically viable.

That said, hybrid approaches risk devolving into policy bundling, compromising the efficiency of the end product by attempting to placate every interest group. The outcome of future hybrid cooperation will depend on U.S. political tolerance for foreign involvement, the desired balance between speed and industrial revival, and foreign shipbuilders' capital access and risk tolerance.

Nevertheless, the ASC program demonstrates that when U.S. strategic needs are clear and urgent, reform can occur. Whether through an individual pathway or a combination of several, the United States should consider leveraging its allies and their shipbuilding industries to rebuild U.S. naval power.

Table 3: Summary Assessment of Cooperation Pathways *(continues on next page)*

	Outcome criteria	
Pathway	Accelerating delivery timelines	Up-front and production costs
Allied acquisition of, partnership with, or investment in U.S. shipyards	Method requires yard reconfiguration, expansion, and workforce development before achieving productivity gains. Substantial production speed improvements are possible via alignment with international best practices.	Yard upgrades require up-front capital investments with direct governmental support or demand signal–related facilitation. Production improvements could yield limited savings, but dramatic cost reductions require aligning U.S. naval procurement with international best practices.
Coproduction of ships by U.S. and allied shipyards	Method could facilitate faster production by taking advantage of excess capacity and advanced production processes of overseas yards. Green hull approach could result in hulls being delivered more rapidly, but significant rework and retrofitting would add time and expense.	Method would require up-front investments in design and coordination before any cost savings could result. Participating yards are likely to face learning curves as module production ramps up; stable demand signal is required.
U.S. purchase of ships from allied shipyards	Production speed and delivery timeline performance are significantly superior at international shipbuilders constructing domestic versions of U.S. vessels. Purchase of foreign designs is the most expeditious sub-pathway; joint designs or international construction of U.S. designs risks a learning curve.	Requires little up-front capital investment and limited investment in compliance. Estimates of cost savings versus domestic production range from ~20% for production of U.S. designs to ~65% for production of local variants of U.S. vessels.
Foreign cooperation on MRO	While this could accelerate ship MRO and availability, it would not increase the speed of delivery of new ships until substantial investments were made in the repair yards.	Method could reduce the costs of ship maintenance. Conversion of U.S. repair yard(s) to naval new construction requires substantial capital expenditures to retool all operations. Method has comparable economics to brownfield new yards.

Outcome criteria *(continued)*	**Implementation criteria**	
Increasing U.S. shipbuilding capacity	Allied industry willingness and ability	U.S. political and regulatory viability
Allied construction of new greenfield/brownfield yards or conversion of repair/offshore equipment yard would considerably enhance top-line U.S. capacity. A purchase of or partnership with existing naval production yard(s) could also yield capacity improvements through production efficiencies.	South Korean yards have indicated a high degree of interest; MASGA initiative will provide significant incentives for investments in U.S. shipbuilding. Japanese yards are more focused on securing MRO contracts. European yards have participated in the LCS and ASC programs.	Austal, Fincantieri, and Hanwha have all been welcomed by local leaders, communities, and congressional delegations. Greenfielding/reopening of yards is likely to be most popular; purchase of existing naval production yards could involve initial cultural and labor tensions.
Modular production would offer an avenue for technology transfer and workforce skill development by working with lead shipbuilders. Green hull approach is less effective for enhancing capacity for new builds.	Allied shipyards have experience with modular and green hull production. Financial incentives vary based on the degree of overseas value add.	Method would require a presidential waiver of the Byrnes-Tollefson amendment. ITAR may impede sharing of expertise. Naval construction standards will require updates.
Method could have potential negative impacts if foreign purchases directly replace contracts awarded to U.S. yards, or positive impacts if it facilitates the reconfiguration of U.S. yards. Foreign variants of U.S. vessels currently utilize U.S.-produced subsystems; increased production would support supply chain capacity.	Japanese, South Korean, and European yards have expressed significant enthusiasm for construction of U.S. naval vessels, particularly auxiliary/support ships. Multiple European and Asian yards possess demonstrated experience constructing ships for foreign navies.	Method is opposed by domestic industry and labor groups. NDAAs typically include language restricting use of funds to U.S.-built ships. Method requires a presidential waiver of the Byrnes-Tollefson amendment. Method entails a new framework for IP sharing.
Converting repair yards to naval construction is highly challenging, requiring all new equipment, production lines, and workforce retraining.	Japanese and South Korean shipyards have already begun to perform MRO on U.S. ships. South Korean builders have expressed interest in maintenance as on-ramp to higher-value naval work.	Existing limits on performing MRO overseas would need to be overcome. If government investment is necessary, it would require congressional action.

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