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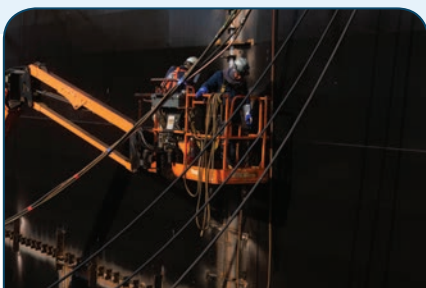
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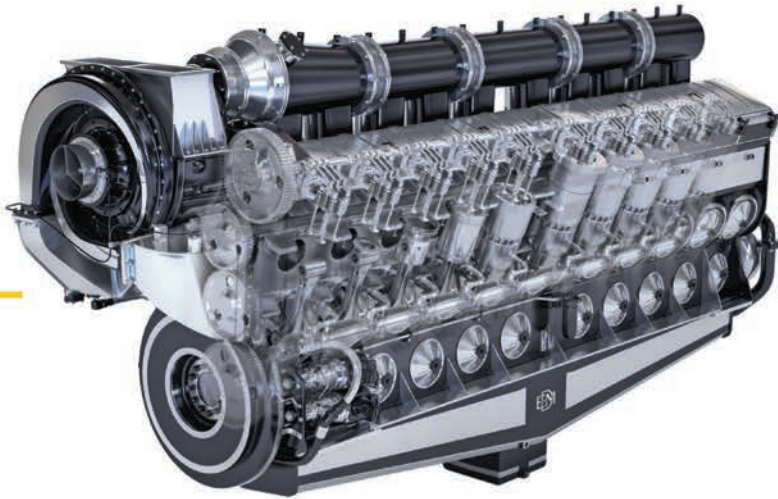
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On the Cover

U.S. shipbuilding is gaining attention in the public arena as calls intensify for renewed efforts to bolster the sector amid growing threats overseas.

(Photo: Philly Shipyard)



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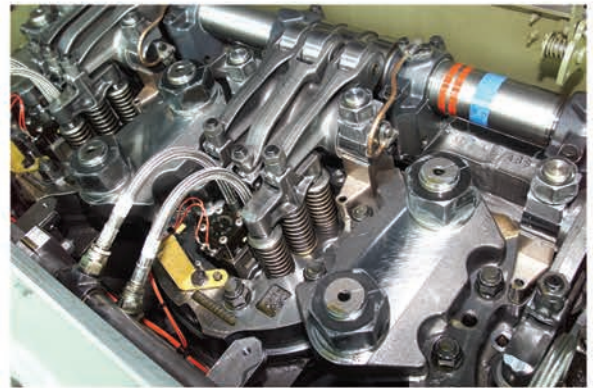
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Editor's Note



Eric Haun, Editor,
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Out of sight, out of mind. That's how the U.S. maritime industry exists for the vast majority of Americans more than 99% of the time. Often when this sector gains public attention it's due to a negative occurrence—conflict, tragedy, a casualty event—as was recently seen following the fatal Key Bridge incident in Baltimore, for example.

Momentum is now building to use this attention for good, to make meaningful changes for the betterment of the industry as well as the American public. “Never let a crisis go to waste,” as the saying goes. In the wake of the containership Dali bridge

allision, discussions are taking place with the aim to enhance safety and, hopefully, prevent this type of event from taking place in the future.

The United States' shipbuilding industrial base is receiving more attention, too, amid growing threats overseas—from Houthi rebels in the Red Sea, as well as from adversaries like China. A column penned by Joey D'Isernia, CEO of Eastern Shipbuilding Group, starting on page 19, calls for renewed government support and investment to invigorate America's shipyards in the face of these dangers.

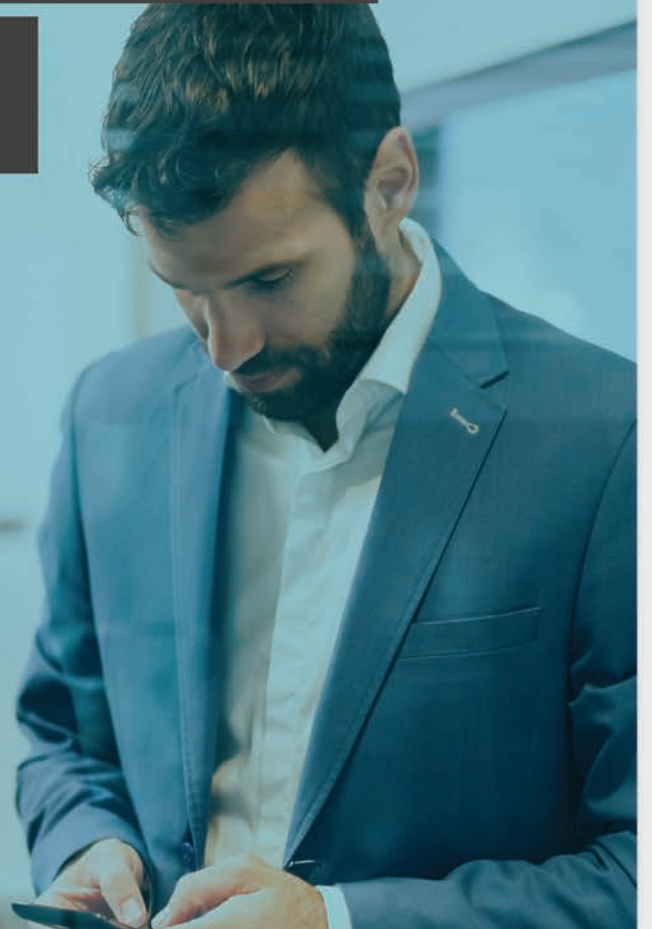
Too often is this industry ignored as it quietly provides vital services in support of national and economic security. Simply put, we can no longer afford for it to be out of sight, out of mind.

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By the Numbers

2024 MARAD Small Shipyard Grants

The U.S. Department of Transportation's Maritime Administration (MARAD) announced \$8.75 million in grant awards to 15 small shipyards in 12 states through the Small Shipyard Grant Program. The funds will help shipyards modernize, increase productivity and expand local job opportunities.

"Small shipyards are integral to the strength of America's supply chains and the maritime industry" said U.S. Transportation Secretary Pete Buttigieg. "With the grants announced today, The Biden-Harris Administration is delivering funding that will create jobs in cities and towns across the country, strengthen our commercial fleet, and add power to our national economy."

"Continued investment in our small shipyards enables them to acquire the cutting-edge technologies needed to remain competitive elements of America's maritime industry." remarked Maritime Administrator Ann Phillips. "These grants stimulate economic development by boosting opportunities for good jobs in the communities where shipyards are located."

Below is a complete list of shipyard grant recipients in Fiscal Year 2024:

ALABAMA

Birdon America, Inc. Alabama Shipyard, LLC., of Bayou La Batre, Ala. will receive \$997,065 to support the purchase of an automated welding system.

FLORIDA

Gulf Marine Repair, of Tampa, Fla., services government, commercial and noncommercial vessels in the South

Florida region. It will receive \$997,678 for its Dry-Dock Strengthening Project of the A.W. HENDRY drydock to increase lift capacity and serviceability.

HAWAII

MARISCO, Ltd., of Honolulu, Hawaii will receive \$584,563 to purchase of an electric air compressor and plasma cutter.

KENTUCKY

James Marine, Inc., of Paducah, Ky. on the upper Mississippi River, will receive \$460,500 to support the purchase of a 40-ton rough terrain crane.

LOUISIANA

C&C Marine and Repair LLC, of Belle Chasse, La. which has been successfully operating for over 55 years in the Gulf Intracoastal Waterway, will receive \$514,263 to purchase a Messer CNC Plasma Cutting Table.

Cooper Consolidated LLC, Convent-Mile 164 Shipyard, of Convent, La. will receive \$368,440 to purchase a Bobcat track loader, four welding machines, 9,000 lb. capacity telehandler, and a backhoe tractor.

MARYLAND

The General Ship Repair Corporation, of Baltimore, Md. is one of the largest commercial shipyards in the state of Maryland. It will receive \$364,311 to support the purchase of a blast and paint shelter, ultra-high pressure water blasting unit, a mist / dry-blast unit and air dryer.



Philly Shipyard

MISSISSIPPI

Gulfship Apprenticeship LLC, of Gulfport, Miss. is a manufacturing facility and small shipyard. It will receive \$4,547 to procure a CNC machine to teach students and assist shipyard.

OREGON

WCT Marine & Construction, Inc., of Astoria, Ore. will receive \$874,297 to purchase a 450-ton hydraulic self-propelled vessel transporter.

PENNSYLVANIA

Philly Shipyard, Inc., of Philadelphia, Pa. will receive \$800,000 to support its shipyard apprentice program.

Rhoads Industries, Inc., of Philadelphia, Pa., will receive \$552,846 to support the expansion of its standard welding training program adding modern mechanized welding systems.

RHODE ISLAND

Safe Harbor Marine Newport Shipyard LLC, of Newport, R.I. repairs vessels from governmental to commercial clients, including passenger ferries, fishing vessels, and ma-

rine towing vessels. It will receive \$647,567 to purchase a 180-ton hydraulic self-propelled vessel transporter.

TEXAS

Lighthouse Marine LLC, of Port Bolivar, Texas on the Mississippi River, is set to receive \$646,157 for JLG Hybrid Telescopic Boom Lift, Grove 65-ton Rough Terrain Crane, welding machine, plasma cutter, and airless paint pump blasting and painting equipment upgrades.

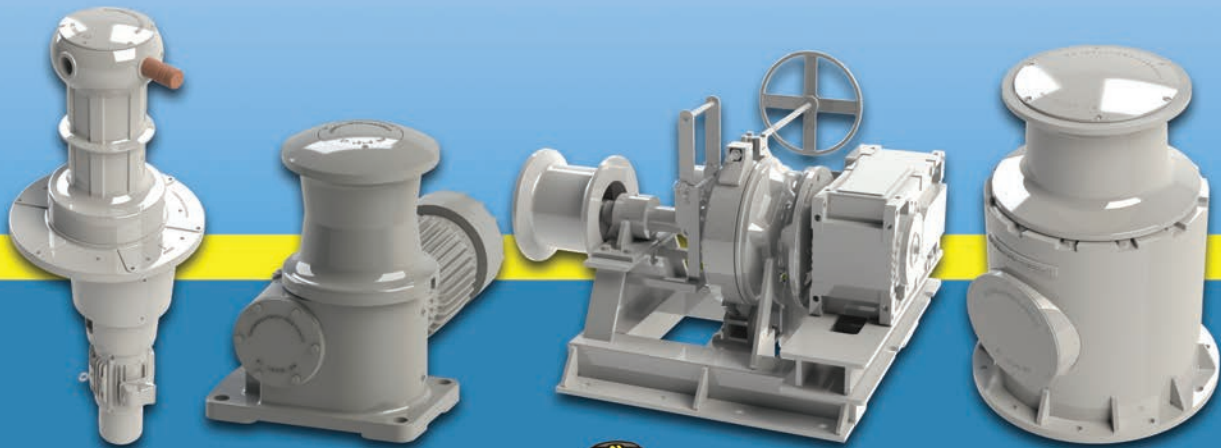
WASHINGTON

Inventech Marine Solutions LLC, of Bremerton, Wash. is a production facility located 8.5 miles from the Puget Sound via the Port Orchard marina. It will receive \$378,079 to purchase an electric clean paint booth with blast and spray booths and two 10-ton and two 5-ton overhead bridge cranes.

Motive Power Marine, of Tacoma, Wash. will receive \$559,687 to support the acquisition of site electrical upgrades, electric air compressor, and a 12,000 lb. capacity telehandler.



DECK MACHINERY





Morgan Fanberg,
CEO, Glosten



Robert Ekse,
President, Elliott Bay Design Group



Wade Carson,
CEO, Vard Marine

Roundtable: North American Naval Architects Weigh In

Marine News spoke to leaders at three North American naval architecture and marine engineering firms about some of the latest trends impacting their business today. Morgan Fanberg, CEO, Glosten; Robert Ekse, President, Elliott Bay Design Group; and Wade Carson, CEO, Vard Marine, weigh in on topics ranging from digitalization and decarbonization to the naval architect talent pool.

How are advances in digitalization and AI impacting the naval architecture business today? How will the role of digital technologies evolve going forward?

WC: Digitalization and artificial intelligence are fast becoming useful tools that will enable us to design and build more efficient, safer and environmentally friendly vessels. Vard Marine specializes in designing complex, tailored vessels that depend on the skill, innovation and experience of our naval architects and marine engineers. AI can supplement their capability by allowing us to more rapidly test

and evaluate concepts, and to synthesize large data sets to provide increased options that will allow us to improve our products, but it can't replace the blend of creativity and competence that allow us to solve the unique problems that our clients face out on the water. We have already seen the digitization of rule sets result in faster calculations, allowing the engineers to focus on improved design decisions rather than repetitive, manual tasks.

Moving forward, we expect to see dramatic improvements in the input data available to inform our decision making and thus the added value we are able to deliver to clients. Output from digital twins combined with data gathered from sensors on ships will allow better predictive maintenance and equipment selection, improve fuel efficiency, increase opportunities for vessel automation and provide deeper insight into vessel performance. As progressively more of this data becomes available, AI will allow the data to be synthesized into useful information that will guide requirements definition and design decision.

MF: Over 15 years ago, 3D scanning was a major techno-

logical breakthrough in retrofit work. Today, it has become as straightforward as using a tape measure and a camera during a ship check, similar to practices from 30 years ago. Since our first 3D scan in 2008, we have refined this process to the point where we can create detailed 3D models within hours of scanning, marking significant advancements in our modeling and simulation capabilities.

We have also made strides in automating other design processes. Simple structural designs can now be completed in minutes using our proprietary automation tools.

Advancements in monitoring vessel propulsion and auxiliary systems have led to significant improvements in predictive maintenance. Maintenance is increasingly based on trends and historical data rather than just run time, thanks to new data collection technologies.

These technological advancements are also driving increased automation onboard vessels, transforming how we operate and maintain ships.

RE: With all digital tech, we need to ask ourselves what it's doing for us, specifically to the application that it's being applied. Most of the time, these innovations are being driven by manufacturers. And they're fully driven by the cost of manufacturing, meaning it's more expensive to manufacture a knob than it is a button on a touch screen. You see this often in the automobile industry, where more and more functionality is being pushed into the information display, and it's only because of customer pushback that newer cars come with a volume knob, for example.

These "technological advancements" are working their way into the marine industry as well—specifically, the wheelhouse controls, navigation, engine rooms, etc. Touch screens certainly have been a shift from solid state controls to digital interface systems that have multiple functions. If there's an advantage to space-saving features or functionality that simply can't be produced any other way, then I think it's worthwhile to look at. We need to ask, "Why is this good for the owner? Why is this good for the platform?" We have a trade-off with tech, and that is system obsolescence and lack of the ability for the owner typically to do their own troubleshooting and maintenance. Those trade-offs need to be continually examined.

The maritime industry is seeing a growing uptake of vessel electrification and alternative fuel propulsion to drive down emissions. How is this

affecting skillset requirements for naval architecture and marine engineering firms? Is it a challenge to add this sort of expertise in house?

MF: First and foremost, this push for electrification is creating a significant demand for marine electrical engineering. At Glosten, we recognized this growing demand years ago as propulsion systems were beginning to become more complex with advancements in diesel-electric and hybrid-electric plants. Our entire marine engineering team is trained in basic electrical design and now we are fortunate to have five licensed professional electrical engineers on staff.

Since we do not have the luxury of a crystal ball on how alternative fuels will be adopted, we must be able to design vessels utilizing all proposed alternative fuels. This requires significant internal technical and regulatory training to pass along knowledge to all of our marine engineers and naval architects. Much of this work contributed to our MARAD guide.

Most of this talent and knowledge growth has been internal at Glosten, led by our seasoned group of principals while also gathering intel from clients and operators who have better firsthand knowledge of these fuels.

In response to the increased complexity of electrical systems including all-electric and hybrid systems, the level of system integration engineering is increasing. These systems require equipment from various manufacturers, so to ensure everything works well together, naval architects and marine engineers must look under every stone and diligently review and engineer systems that will work or find solutions to these gaps.

RE: It's more of an evolution than a shift. Naval architecture, mechanical engineering, electrical engineering, they have to interface with the manufacturer and regulatory bodies in a different way. How do you review a manufacturing system that encompasses what usually took several elements to put together to create a system? It's all in one black box. How can that black box be integrated into the rest of the ship?

You have to communicate, you have to be able to speak to those details, to the purpose of the desired functionality and the requirements of the design with the manufacturers. In the days gone by, there used to be a fairly straightforward mechanical cut sheet that could answer the questions. This is the output of the pump, this is the horsepower that the engine is providing, this is the torque curve, etc. Nowadays, there is a lot of proprietary information in-

Insights

cluded in that black box, that is created by the manufacturer that the engineer needs to be able to interface through communication to make sure that the output is going to be in conformance with the design requirements. Those soft skills versus simply the hard skills are what we really need to bridge the gap to cover that change in our processes.

WC: A strong holistic knowledge of multiple disciplines and the ability to work closely with specialists in different disciplines have always been essential to good ship design; however, the increase of vessel electrification has substantially increased the focus on the electrical discipline. Vard Marine has created an internal electrical department to ensure that we have the necessary skill sets from concept design through to vessel delivery to support our clients.

Marine electrical engineering has been a challenge to add in house as, though there are some great engineers out there, it is a skillset that was relatively rare in North America. We have had to build much of the capability ourselves and rely on support from our parent company in Norway to ensure that the department is able to address the rapid innovation in this space.

How do you see the overall evolution of power/propulsion solutions in the marine business?

RE: While new technology is moving very quickly in other parts of the transportation industry, the marine industry typically moves very slowly. In over the road transportation, for example, a truck may have a 10-year lifespan, while a ship, large tug, ferry or workboat may have a 50- or 60-year lifespan. Because of that and the sheer numbers that we're talking about when comparing the marine industry to other transportation industries, there are much fewer platforms to speak of. The evolution of the marine industry is going to move a lot slower than others. So even with this initial thrust, this initial interest of alternative fuels, there will be people that can capitalize on the funding availability and the real strong interest in lowering emissions in the marine market.

I think the evolution of those markets are going to take a while to really settle, and for the most part, will be driven by the more rapidly changing elements from the other industries. What is the magic bullet for reciprocating internal combustion engines? Is it methanol, hydrogen? Any number of fuels or energy transfer systems are going to be clearly defined in industries that are moving much faster

just because of their nature, the attrition of those pieces of equipment. The marine industry has a unique opportunity to watch the other elements of industry, see how they rapidly cycle through the learning curve of what's happening. And that will inform the marine industry, I think, much more intelligently for that much longer-term, 50-year lifespan investment that owners are looking at.

MF: We foresee an increase in all-electric/hybrid-electric propulsion plants due to technology advancements in battery power density and the adoption of dual fuel marine engines. We also expect more adoption of energy-efficient technologies such as foiling tech for ferries, air lubrication systems to reduce drag, and new waste heat recovery systems to increase overall plant efficiency.

WC: We continue to see increased adoption of hybrid and electric propulsion systems. Given that our design portfolio is filled with unique and complex vessels, we are used to seeing variety of different power and propulsion systems, but the future provides even more opportunities to improve the fit and optimization of systems to the specific operational conditions of the ship. These opportunities will allow us to reduce fuel consumption, reduce emissions and reduce capital and opex costs.

Another key trend is the exploration of alternative fuels. Liquefied natural gas (LNG) has gained traction as a cleaner alternative to traditional marine fuels and will continue to be a key fuel for the coming decade. We are staying up to date with other fuel sources and have developed concept vessels that both use and transport them, but infrastructure challenges and competition with other energy consumers will limit their uptake in the near term.

Many firms in the commercial maritime sector cite the attraction and retainment of qualified/talented staff among top challenges. What does the talent pool and job market for naval architecture/marine engineering look like? Are these challenges as present in your part of the industry?

MF: There's absolutely a challenge with attracting top talent in the marine industry. We continue to see a widening gap in engineers with shipyard and construction experience. We can design amazing vessels that meet or exceed client expectations, but without staff that have construction experience, there's an increased risk of overcomplicating designs that lead to cost overruns. We strive to simplify

and design vessels with a construction mindset.

WC: The talent pool in our market has always been limited. We hire significantly from co-op placements and train our naval architects and marine engineers, providing them the opportunity to rapidly experience multiple projects across multiple ship types. The level of exposure that they receive, which is necessary to develop the experience they need, is difficult to find outside of a small pool of similar companies.

Due to the significant investment required to develop our skilled professionals, retention is very important to us. We prioritize continuous professional development, training, and opportunities to learn. We offer remote and

hybrid working conditions, on-site opportunities at client shipyards, and placements at our parent company in Norway for knowledge transfer.

We have not experienced the same levels of turnover that have occurred in other areas of industry, but we have sought to improve flexibility and working conditions to attract and retain top talent.

RE: At Elliott Bay Design Group, we emphasize flexibility in our employment packages. We have a significant contingency of remote workforce. With that comes flexibility of not only where you live, but how you work. This seems to be a very high priority for younger people entering the



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workforce as well as some of the top candidates that are looking to write their own ticket for their future. I'm not necessarily talking specifically about remote work, but the flexibility that allows them to draw their own work-life balance. If people can create a system where that has the best chance of success, then I think firms have the opportunity to attract top tier talent.

I think the marine market for naval architects, marine engineers and electrical engineers has always been fairly small. The competition for that market is fairly tight. So, we're all looking at the same resources to fit not only the hard skills, but then find those softer skills that we need, as we were talking about earlier, it's a more well-rounded discipline that you're looking for. Somebody that has that ability to pick up the phone and call a manufacturer or have a conversation with a client. That is really, really important. The number of available employees is not shrinking necessarily, but rather the specificity of what we're looking for is narrowing. And on top of that, you have the market that emerged post-Covid, where people looking for work really had the luxury of many options. The job markets were simply in a condition to favor the employee, and that's created some need for innovative business models to attract talent.

What do you see as the number one technology or innovation over the course of your career that has most impacted commercial marine operations?

WC: From a design perspective, I started my career at the tail end of the transition to CAD and I have watched the comparatively slow transition to an integrated 3D modeling environment. I had expected 3D modeling to move earlier into the design cycle much more rapidly, but until recently, the complexity of the systems limited their utility in the dynamic and rapidly changing environment of early-stage concept design, where prototype designs are the norm. We have relied on our own in-house developed tools, which we affectionately call 2 ½ D to bridge the gap.

For marine operations, the greatest impact has come from electrification and the integration of electronics. Greater control, more data collection, better communication, automation, better sensors for predictive maintenance have all resulted from this transition. These have also brought new challenges and the need for increased skills and knowledge from both designers and operators,

but the overall benefit is clear.

MF: Adoption of automation. From simply opening and closing valves from a computer screen, to receiving real-time support and monitoring from equipment manufacturers around the world, these advancements have changed marine operations for the better. Soon the adoption of digital twins will allow us to simulate propulsion systems well before construction begins. We will have the opportunity to troubleshoot designs and greatly reduce the amount of commissioning time required after construction is complete.

RE: Mooring systems roles have had the greatest impact on the industries that I've been involved with. Mooring systems have come a long way since I entered the industry in the late '80s, early '90s. You have magnetic systems, suction systems, all of these quick, efficient and secure ways of mooring a ship, ferry or barge. You significantly reduce your tie-up time and increase the amount of time that you can spend moving freight, passengers, etc. from the platform to the shore or vice versa. That's changed the way operators not only design their boats, but think about their operation, and has really changed the face of looking at turnaround time as a significant cost element to their operation. Before these systems were created, tying up a ship really was a formula that was kind of predictable and there wasn't much magic to it. Everybody knew what this static way of thinking was, and advanced mooring systems changed all that.

A second element is controls. Station keeping and dynamic positioning coming from the oil and gas industry has created a part of the market that has advanced controls and propulsion systems. There's been a resurgence of the cycloidal drive systems. Z-drive systems have really come into a stronger position, propulsion pods as well, not only with fuel economy, but matching the desired efficiency with the specific maneuverability that is required of the platform that you're talking about. Those advances have really changed the face of the industry and created new dynamics for the owners to consider.

Where do you see greatest opportunities in the U.S. market currently? What is your firm doing to capitalize?

RE: I think the greatest opportunity is the modernization of the U.S. fleet. When you look around at the average age of river tugs, near coastal workboats or even ferries—although we have had a lot of money pumped into the ferry market in

the U.S. over the last 30 years—the fleets are very old from an average age perspective. That’s an opportunity. There’s a lot of eyes on the cost of manufacturing, on stretching that dollar to capitalize the latest technology. There’s been some hesitancy without really knowing what regulations and technological advancements are going to come about. Nobody wants to buy something and then have that superseded by the next greatest solution. That’s why we see our aging fleet increase year over year. I believe we’re at a turning point. I think that operators are getting more confident about what they need, and there are funding sources out there that have allowed people to leverage their capital expenses into grants, etc. So that’s the opportunity I see. Whether it’s a midlife refit on an existing platform with a change of propulsion, maybe a slight design change on the hull form. With an aging fleet comes the necessity of renewal.

WC: On the commercial side, we are heavily involved in the transition to alternative fuels and the energy infrastruc-

ture market. This includes bunker vessels, wind farm vessels, the resurgence of the oil and gas market and power generation vessels. We are learning from the experience gained in European markets and tailoring them to suit the unique needs of U.S. shipyards and operators.

On the government side, the focus is on vessel automation. Removing sailors from harm’s way, allowing increased focus on mission execution rather than platform operation, and improving operational reliability are all key opportunities using innovations and improvements in technology.

MF: We’re seeing opportunities throughout all the sectors we serve in the maritime industry. Certainly, inflation and interest rates are delaying recapitalization projects, so there is (and always has been) a focus on keeping older vessels running whether due to aged equipment, steel corrosion issues, or, of course, keeping up with new regulations. We will continue to see an increase in alternative fuel and electrification projects. The space industry (pun intended) is really taking off.



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Maritime Implications of Recent Supreme Court Rulings

By Jeff Vogel, Shareholder, Cozen O'Connor's Transportation & Trade Group

In recent weeks

the U.S. Supreme Court has fundamentally changed the ways that laws are interpreted and enforced by federal agencies. These decisions will have far-reaching impacts on heavily-regulated sectors, such as the U.S. maritime industry, potentially altering the balance of power between stakeholders and federal regulators.

Civil penalties require 7th Amendment protections

On June 27, 2024, in *SEC v. Jarkesy*, the Supreme Court held that under the Seventh Amendment, the Securities and Exchange Commission (SEC) must bring civil-penalty actions for securities fraud in federal court, where the defendant is entitled to a jury trial in accordance with the 7th Amendment, and cannot do so before its in-house Administrative Law Judges (ALJ).

The case has immediate, direct implications for ocean carriers and marine terminal operators, whose actions are regulated by the Federal Maritime Commission (FMC). Similar to the authority held by the SEC when imposing civil penalties for securities fraud, the FMC is empowered to impose civil penalties for violations of the Shipping Act. Under its current adjusted rates, the FMC can impose penalties of up to \$73,045.00 for each “knowing and willful” violation of the Shipping Act or FMC implementing regulation or order, or up to \$14,608.00 for each such violation that does not meet the “knowing and willful” standard. Like the SEC, the FMC has typically imposed such civil penalties – which are the Commission’s key enforcement mechanism under the Shipping Act – before the FMC’s ALJs. The use of internal ALJs includes relaxed evidentiary and discovery rules, generally followed by deferential judicial review if and when a party appeals an ALJ’s

imposition of civil penalties.

Accordingly, prior to the Supreme Court’s decision in *Jarkesy*, it was a relatively low cost and straightforward effort for the FMC to impose civil penalties against ocean carriers and marine terminal operators for alleged Shipping Act violations. Indeed, in recent years the FMC has increased its enforcement of the Shipping Act, particularly when seeking to ensure that ocean carriers and marine terminal operators “establish, observe, and enforce just and reasonable regulations and practices relating to or connected with receiving, handling, storing, or delivering property.” Through a series of rulemakings, reinforced by the Ocean Shipping Reform Act of 2022, Pub. L. No. 117-146, the FMC has increased its use of civil penalties to address what the Commission has deemed to be unreasonable practices in the billing of demurrage and detention charges (i.e., charges for the storage of containers at marine terminals, or use of intermodal equipment, following the expiration of a “free time” period). For example, in May 2024, actions by the FMC’s Bureau of Enforcement, Investigations, and Compliance led to a compliance agreement with an ocean carrier yielding nearly \$2 million in civil penalties for demurrage and detention charges that allegedly violated the Shipping Act. Given the Supreme Court’s decision in *Jarkesy*, the FMC’s ability to rely on its civil penalty authority to enforce such alleged Shipping Act violations has been placed into doubt.

The FMC is not alone in facing potential challenges from the *Jarkesy* decision. Numerous other agencies that regulate the U.S. maritime industry, such as the U.S. Coast Guard (USCG) and Environmental Protection Agency (EPA), possess similar civil penalty authorities that are often implemented through administrative proceedings. While these agencies do not rely upon internal ALJs in the same

manner as the SEC or FMC, it is likely that future cases will test the limits of *Jarkesy*, which may ultimately force these agencies to impose civil penalties only through federal court proceedings that guarantee the right to a jury trial.

Chevron deference eliminated

In the immediate wake of *Jarkesy*, on June 28, 2024, in *Loper Bright Enterprises v. Raimondo and Relentless, Inc. v. Department of Commerce*, the Supreme Court struck down the 40-year-old pillar of administrative law established in *Chevron U.S.A, Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984). Under *Chevron*, if a court determined that a statute was ambiguous or silent on an issue, it was required to defer to an agency’s interpretation on that issue, provided such agency interpretation was “permissible” (i.e., that the interpretation was “rational” or “reasonable”). Accordingly, under such *Chevron* deference, agencies were fully empowered to fill in statutory gaps with their own regulations and interpretations, and courts were required to defer to such agency interpretations, even if the court would have independently reached a different interpretation.

In striking down such *Chevron* deference, the Supreme Court determined that courts must now exercise their own independent judgment when deciding whether an agency has acted within its statutory authority and cannot defer to the agency’s own interpretation of the law. As a result, when challenging an agency interpretation of an ambiguous or silent statutory provision, maritime stakeholders should find a more even playing field when advancing alternative interpretations before a court. Notably, however, other forms of agency deference – such as that established by *Skidmore v. Swift & Co.*, 323 U. S. 134 (1944) – remain intact. Under *Skidmore* deference, courts and litigants may rely upon agency interpretations for guidance, particularly contemporaneous interpretations of a statute to the statute’s creation, or otherwise consistent or longstanding interpretations of a statute.

The impacts for regulatory agencies such as the FMC, USCG, and EPA could be widespread. As an initial matter, the *Loper Bright* ruling may open up the opportunity for regulated entities to challenge agency interpretations of ambiguous statutory provisions. The result of such potential increased litigation – and the lack of deference for an

agency’s interpretation – is that maritime stakeholders will be increasingly reliant upon, and subject to, court interpretations of law. There is also an associated risk that, without deferring to agency interpretations, differing jurisdictions can more easily reach differing results when interpreting ambiguous statutes. As such, entities operating in multi-state operations, such as maritime operators, may encounter greater difficulty in complying with the law when moving between jurisdictions.

Door opened for more legal challenges to regulations

In a third shockwave to long-standing administrative law norms, on July 1, 2024, the Supreme Court held in *Corner Post, Inc. v. Board of Governors of the Federal Reserve System* that the statute of limitations applicable to challenges to agency regulations under the Administrative

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Column

Washington Watch

Procedure Act (APA) is more flexible than previously understood, opening the door for many challenges previously thought to be time-barred. As a general matter, the APA has a six-year statute of limitations, which previously was understood to mean that a challenge to an agency regulation must be brought within six years of when such regulation becomes effective. However, in *Corner Post*, the Supreme Court clarified that a claim “first accrues” under the APA when a party suffers an injury from an agency final action, not simply when agency takes final action. As such, if a party is injured by an agency’s regulatory action – even if the underlying regulation is decades old – the party may still have the right to challenge the agency’s regulation.

From a maritime stakeholder perspective, *Corner Post* may open up a world of opportunity to challenge agency regulations that well past the six year mark of when such regulations went into effect. The unfortunate reality is that many regulations that govern maritime operators are woefully out of date and may be causing harm to the U.S. maritime industry on a regular basis. To the extent that a

maritime stakeholder suffers an injury (monetary or otherwise) from an existing regulation, that injury may provide a basis for challenging the agency’s regulation under the APA, regardless of when the regulation was promulgated.

When the Supreme Court’s decisions in *Jarkesy*, *Loper Bright*, and *Corner Post* are read together, it is clear that the Supreme Court has fundamentally impacted the regulation of the U.S. maritime industry. Stakeholders now have greater protections from the imposition of civil penalties, a more balanced court review process when challenging agency interpretations of ambiguous statutes, and a longer statute of limitations for challenging agency regulations under the APA. Agencies are continuing to review their changed authorities and the full impacts of these decisions will continue to evolve with further court challenges. Accordingly, regulated maritime entities should reevaluate regulatory approaches in consideration of this changed administrative law landscape and carefully consider the Supreme Court’s new framework in evaluating potential opportunities and legal risks.



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Column Shipbuilding

Our National Maritime Strategy Needs to Empower Tier 2 Shipyards

By Joey D'Isernia, CEO of Eastern Shipbuilding Group, Inc.

A few weeks ago,

a U.S. Coast Guard cutter spotted several Chinese military ships within the U.S. exclusive economic zone just 200 nautical miles off the shores of Alaska. This incident underscores how brazen our adversaries are becoming in the face of a diminished U.S. maritime presence. China's brazen actions are backed by the world's largest naval fleet that they have accumulated over the past several years while our maritime capacity has declined. There is a real threat that

China poses to our national and economic security in their growing dominance of international waters.

A comprehensive U.S. maritime strategy accounts for our national security, economic security, and homeland security objectives in both peacetime and conflict. As the potential for conflict in the Pacific looms large, our focus on military production must be at the forefront, while we maintain an aggressive posture on the global trade front in international waters.



Brandon Giles / U.S. Coast Guard

Column

Shipbuilding

Many in Washington are justifiably skeptical of the U.S.'s ability to catch up to China's investment in their shipbuilding industrial base as China does not operate on a level playing field. I personally refuse to accept this narrative. The bottom line is that the United States cannot afford to let our shipbuilding fall further behind, we are the leader of the free-world, and we must maintain our maritime dominance. I firmly believe that Tier 2 shipyards have the capacity, talent, and infrastructure to augment our Tier 1 shipyards if the proper initiatives are put into place.

Recently, the DOD reported in its Navy shipbuilding plan that, "Within the overall industrial base, including both shipyards and suppliers, varying levels of capacity and risk exist. Nuclear powered ship production, a unique capability with little to no opportunity for commercial or dual use production, is provided by two private shipyards that are currently facilitated and certified to construct nuclear powered ships and will be at capacity for the next 15-plus years..." And while it is critical to have carriers, large combatants and highly sophisticated warships at the lead of forward naval action – recent planning and studies have suggested a littoral, and a heavy troop movement role is the likely scenario in Pacific engagement.

The U.S. Navy relies on seven Tier 1 private shipyards in the U.S. to produce and repair its Fleet. And according to the latest report, two of those yards are at capacity for the next 15-plus years. These yards are the best in the world and standing shoulder to shoulder with them are the midsize Tier 2 shipyards, like Eastern Shipbuilding Group, who are ready to support and carry the additional shipbuilding demands of the U.S. military.

I applaud Sen. Rubio and Rep. Waltz from my home state of Florida for leading the charge, along with a bipartisan, bicameral group of members, on revitalizing our maritime sector. In their newly released Congressional Guidance for a National Maritime Strategy they put forward a framework that includes planning guidance, strategic objectives, and actionable steps for both Congress and the Administration to bolster our nation's maritime sector. "As China vies for global influence, the United States must project strength and security in the maritime domain," said Senator Rubio. "Congress must act swiftly to adopt a maritime strategy

that invests in our industrial base, reestablishes a strong workforce, and strengthens our national security."

Tier 2 shipyards, though smaller in scale compared to their Tier 1 counterparts, are vital to bolstering the nation's sealift capabilities, ensuring resilience, and maintaining a competitive edge in global maritime logistics. These shipyards possess the expertise, flexibility, and innovation needed to complement the efforts of larger shipyards.

By incorporating Tier 2 shipyards into the national sea lift strategy, the United States can achieve several key objectives:

- Tier 2 shipyards can quickly adapt to changing demands, providing surge capacity during times of crisis. Their ability to produce and maintain a diverse range of vessels ensures that the sea lift fleet remains versatile and responsive to various operational requirements.
- Supporting Tier 2 shipyards stimulates local economies, creating jobs and fostering innovation in regions that rely heavily on maritime industries. These shipyards often serve as economic anchors in their communities, driving growth and development.
- Tier 2 shipyards are hubs of innovation, often leading the way in adopting new technologies and practices. Their inclusion in the national maritime strategy ensures that the latest advancements in shipbuilding and maintenance are integrated into the fleet, enhancing efficiency and performance.

To effectively integrate Tier 2 shipyards into the national maritime strategy, several strategic considerations must be addressed:

1. Upgrade and expand Tier 2 shipyards. Upgrading and expanding the infrastructure of Tier 2 shipyards is essential. This includes modernizing facilities and investing in advanced manufacturing technologies. These improvements will enable Tier 2 shipyards to meet the demands of a national sea lift strategy effectively, it also provides a strategic wartime multiplier creating production parity with Tier 1 yards for rapid repairs and builds. We have put forward a grant application for a dry dock that would create enormous economic growth for our area and relieve a massive backlog in shipbuilding repair. Before we continue

Column Shipbuilding

down the road of outsourcing our shipbuilding maintenance jobs to our allies, we should invest in our yards who have the talent and the capacity.

2. Implement a national shipbuilding workforce initiative. I have long called for a national workforce initiative aimed at shipbuilders. Although shipyards across the nation are aggressively seeking to recruit and train shipbuilders, we have steep competition across manufacturing sectors for both corporate and skilled trades professionals. This fact makes it hard to maintain and grow our manning level, especially when there is a looming gap in government production. We must train our next generation of mariners and shipbuilders before the current generation ages out of the trade. However, before we are able to train them, they must first be incentivized to choose shipbuilding as their career of choice.

3. Reform government contracting processes. Simplifying and expediting contracting processes for Tier 2 shipyards will facilitate their participation in our defense initiatives. Reducing regulatory hurdles and fostering clear communication channels between the government and shipyards will accelerate project timelines and improve efficiency.

4. Encourage Tier 1 and Tier 2 shipyard collaboration. Encouraging collaboration between Tier 1 and Tier 2 shipyards can lead to synergies that benefit the entire maritime industrial base. Sharing best practices, resources, and technologies will enhance the capabilities of all shipyards involved,

creating a more robust and cohesive sea lift strategy.

5. Stabilize funding streams. Long-term, consistent funding is crucial to the success of the national maritime strategy. This financial commitment will provide Tier 2 shipyards with the stability needed to invest in infrastructure, workforce development, and technological advancements.

The need for a national maritime strategy that incorporates Tier 2 shipyards is both urgent and evident. As the United States navigates an increasingly complex global landscape, ensuring that its sea lift capabilities

are robust, resilient, and responsive is paramount. Tier 2 shipyards offer the flexibility, innovation, and capacity necessary to strengthen the maritime industrial base and secure the nation's strategic interests.

By investing in and integrating these vital shipyards, the United States can enhance its sea lift fleet, support local economies, and maintain its competitive edge in global maritime logistics. The time to act is now. As a nation, we must forge a path toward a more secure and prosperous future through a comprehensive and inclusive national sea lift strategy.



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Column

U.S. Maritime

America Must Renew its Commitment to Maritime

By Jennifer Carpenter, President & CEO, American Waterways Operators; President, American Maritime Partnership

The United States must renew its commitment to a strong, reliable American maritime capability to confront emerging threats. China's aggressive shipping expansion poses significant challenges to the United States and our allies. Global tensions have highlighted the vulnerability of maritime supply chains, and our domestic waterways remain a potential pathway for increasingly belligerent adversaries to cause harm.

The Merchant Marine Act — commonly known as the Jones Act — is vital to defending American interests and sovereignty amid these complex challenges. June marked

the anniversary of this bedrock law and the founding of America's Merchant Marine. These institutions enable our nation's industrial base and naval power to safeguard global supply chains, preserve military readiness and protect our homeland security.

The Chinese Communist Party has long understood the importance of its maritime industry, funneling hundreds of billions of dollars in subsidies into its shipyards and shipping companies. China's ambition to extend its influence and control over the global supply chain has had an immediate and pronounced effect. For example, the lead-



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Column U.S. Maritime

ing association for Europe's shipbuilders has grimly declared that "without a fundamental change in shipbuilding policies, Europe will lose the capability to build seagoing merchant ships on any significant scale over the coming 10 years," mainly due to China. Meanwhile, the CCP has expanded its international presence into 100 ports globally and populated U.S. ports with cranes made in China, raising security concerns.

The Jones Act is fundamental to maintaining a fleet of American-built, -crewed and -owned vessels undergirding our nation's economy and serving as a bulwark against China's expansionism. It supports 650,000 American jobs, helps secure our domestic transportation from supply chain disruptions and buffers against anti-competitive maneuvers from China. U.S. shipyards are booked and busy building oceangoing and "brown water" vessels to meet our economic and national security demands.

Without a trusted domestic maritime industry connecting Hawaii to California, Alaska to Washington state, Florida to Puerto Rico, and the lower 48 states to one another, we would be dangerously vulnerable. The Jones Act ensures these vital domestic trade lanes are independent of foreign interests and underpins U.S. shipbuilding.

Meanwhile, the conflicts in Ukraine and the Red Sea are stark reminders of how tenuous the free movement of cargo can be. Russia's invasion of Ukraine and its potential implications for the global supply and transport of grain have kept the world on edge since 2022. Today, the Houthi's

continuous assault on international shipping through the Red Sea has caused commercial vessels to divert from that major channel and reroute around South Africa. They have fired upon American mariners aboard U.S.-flagged ships carrying vital government cargoes while Chinese ships have passed through unencumbered.

On top of enabling American control over our supply chain, the Jones Act is also critical to maintaining our military readiness. Our armed forces count on barges to transport military equipment between U.S. bases on our domestic waterways and rely on tugboats to help Navy ships safely enter and exit U.S. ports. The Jones Act ensures that American vessels perform these critical tasks and also that the United States maintains a robust pool of trained mariners for the military's critical sealift needs.

Gen. Jacqueline D. Van Ovost, the commander of U.S. Transportation Command, underscored this to Congress, remarking that the Jones Act and associated laws "work to ensure TRANSCOM has the neces-

sary U.S.-flagged capability and U.S. merchant mariners ready to move sensitive defense materials during a national emergency."

The Jones Act is a vital asset for protecting our people and infrastructure from bad actors by limiting foreign vessels' ability to roam our inland waterways and allowing the Coast Guard to safeguard our nation's waterways using taxpayers' critical dollars more efficiently. Without the law, the Coast Guard's already difficult homeland security mission would be even more complex at a dangerous time.

The United States must be clear-eyed and affirm its commitment to American maritime and the security it provides. It's time for our maritime industrial base to receive the national attention it deserves to ensure the strong defense and economic resilience this country demands. The Jones Act and the 650,000 men and women of American maritime are just the start.

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Brandon Giles / U.S. Coast Guard

REOPENING THE CHANNEL: HEROES, PARTNERS



A Look-back at the Key Bridge Accident Response

By Tom Ewing

“The enormity of this disaster is hard to imagine without seeing it in person...It may sound dramatic but given the wreckage field created by the collapsed bridge, the environment divers are working in, and the dangers posed to them, is like cleaning the site of 9/11 with blinders on.”

– Rick Benoit, Emergency Management specialist at the U.S. Army Corps of Engineers (USACE) North Atlantic Division (NAD), from USACE news report.

Col. Estee Pinchasin is commander of the U.S. Army Corps of Engineers (USACE), Baltimore District. On Tuesday, March 26, she was awakened by a middle-of-the night call from her mother-in-law with a disquieting message: there was an accident on the Francis Scott Key Bridge. Her mother-in-law added: “I figured you’d have something to do with this.”

An understatement to be sure. Within hours, Pinchasin became one of six Unified Commanders to lead the Unified Command team established by afternoon March 26. The bridge became her life for the next two and a half months.

In an interview, Pinchasin was asked about some of the critical, initial events as well as some of the major decisions and events as the recovery efforts developed. Her initial thought: it happened in the middle of the night! Sadly, the world learned later, six contractors were killed. But at 1:30 a.m. there was no morning rush on I-695. The State Police, responding to a mayday call from the Dali, the containership that struck the bridge, had at least a few minutes to block the roadways, saving countless lives.

Then, Pinchasin said, the phone calls started. Even early reports indicated a major disaster. The 50-foot-deep Fort McHenry channel, under the bridge, is USACE’s jurisdiction, a channel critical for regional, national and international trade, a route supporting thousands of jobs in the Port of Baltimore and the region.

“There was no waiting for someone to call me and say, ‘Okay, this is your assignment,’” Pinchasin recalled. “USACE has maintained this channel for over 100 years. We had to clear it.” Fifty-thousand tons of wreckage crashed into the Patapsco River.

Initial outreach went to USACE’s emergency management teams. The Coast Guard was contacted. “Everybody knew,” Pinchasin recalled, “that the debris was nothing

that we were going to be able to handle individually. This task would require collaboration.”

Critically, Pinchasin and her team could draw upon recent and similar teamwork that followed the March 2022 grounding of another large containership, the Ever Forward, near Annapolis.

“We partner with these stakeholders when it’s not an emergency,” Pinchasin pointed out. “A human connection already exists among us.” The decision was made to again establish a Unified Command, enjoining six agencies, to oversee Key Bridge recovery. A top executive from each agency became one of six Unified Commanders. As USACE’s top official for the Port of Baltimore, Col. Pinchasin became a Unified Commander (with the Ever Forward incident the USACE was not part of the Unified Command because the vessel was in a state, not a federal, shipping channel).

Importantly, the Army Corps could take advantage of an interagency agreement with the Navy, an agreement that allowed the Navy’s Supervisor of Salvage and Diving (SUPSALV) to call the contractors it has on standby, ready to react in just such an emergency situation. For the Key Bridge project, Donjon Marine, based in New Jersey, was on point and, indeed, mustered its team and equipment and moved into action. Pinchasin said Donjon was on site in less than 12 hours.

Stranded energy

Pinchasin highlighted the deliberate and precise planning required for recovery operations. She noted the potential energy trapped within twisted steel and cables and rebar, energy held in check, tied up really, by being at the bottom of a pile and weighed down further by roadway, water and mud. Moving that debris meant releasing that energy, like a gigantic malevolent clock spring.

Feature Salvage



“Everybody knew that the debris was nothing that we were going to be able to handle individually. This task would require collaboration.”

**– Col. Estee Pinchasin, Commander,
U.S. Army Corps of Engineers
Baltimore District**

“A person quickly realizes how different salvage operations are from construction,” Pinchasin commented. “Salvage work isn’t easily planned out on a Gantt chart. Timing, rates of placement and movements and units of measure are very difficult.” Sometimes the rigging, she said, takes longer than the cutting and lifting. She noted that some loads took two days to lift, moving just inches at a time because the crane operators had to evaluate how each load reacted, how it might shift as ruined sinews snapped free one final time. One USACE news report commented that crane operators and crews need “nerves of steel to operate these metal behemoths from dizzying heights – fighting unpredictable winds and choppy waves below – performing a literal balancing act to shift massive, mud-covered, waterlogged heaps of twisted steel frame and Interstate 695 onto a nearby waiting barge.”

Pinchasin noted the “harsh and unforgiving environment” for the salvage divers who surveyed and delivered the data that the crane team needs to prepare rigging and lifting. Rick Benoit, USACE’s Emergency Management specialist, described the divers’ worksite as “an uber-extreme work environment of dark, cold water. Divers are moving as if playing an underwater game of Twister and Jenga with hundreds of tons of shattered concrete and twisted steel in complete darkness.” Visibility was one or two feet. Divers used survey data from Light Detection and Radar (LiDAR) and advanced sonar imaging to map out underwater routes. They couldn’t stand on the wreckage – it might sink, pulling them into a new trap.

Leadership, partnership, progress

Another critical factor was the role taken on by the Navy’s SUPSALV team. It’s important to keep in mind that the recovery had three, nominally separate, work zones:

- The USACE and its work to clear the Ft. McHenry channel.
- Work on the Dali to prepare it for resailing, a task headed by Resolve Marine, based in Florida, the Dali’s contracted emergency response company.
- The State of Maryland, and its contractor Skanska, working in areas outside the federal channel.

[At their customer’s request, Resolve said they could not discuss their work by the deadline for this report. Skanska did not reply to inquiries.]

In reality, of course, it was one work zone. And this is

where the Navy stepped up – to coordinate contractors’ efforts, to ensure safety, with blasting zones, for example, and coordinating access in order to best synchronize all crews and equipment and schedules.

The Navy’s coordination, Pinchasin said, allowed the three primary contractors to “share resources, and, most importantly, share lessons.” The Navy team, she explained, “enabled each person and salver to get what they needed to do based on their prioritization. Everyone knew of critical activities well in advance and coordinated their schedules.” This teamwork, she said, delivered “incredible capabilities.”

In one Army Corps media report Pinchasin gave a particular shout out to the crane operators and teams. “Their skill, experience and professionalism in removing submerged wreckage is truly unmatched,” Pinchasin said, and added further, “Pulling these massive loads out of the water can be highly unpredictable. The crews must ensure the wreckage is balanced and properly secured to its rigging. It requires a tremendous amount of patience and is as much art as it is skill. To do that, without injury or damage to their equipment, represents a standard of excellence that’s indispensable on this mission.”

Insomnia. Let’s get to work

John A. Witte, Jr. is president and CEO of Donjon Marine Company, Inc. Over the past 50 years Donjon has become a seasoned, experienced player in maritime emergency response. Donjon participated in the Ever Forward refloating, in recovery efforts after Superstorm Sandy in New York and after Hurricane Katrina in

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Feature Salvage

the U.S. Gulf. As noted above, Donjon is the Navy's emergency responder for the Atlantic zone, and it was the Navy Supervisor of Salvage and Diving that facilitated Donjon's priority role with the Army Corp.

Witte received a call about the Key Bridge a few hours after the Dali's hit. His initial thought: "It's time to go to work."

Over the last 40 years, Donjon has worked extensively in the Chesapeake Bay. Donjon knows the territory. "We had the advantage of an already developed relationship with the COTP (Captain of the Port)," Witte commented, "and with local regulatory organizations. We had developed a level of trust and mutual respect which, obviously, is always a positive when dealing with any sized event, but especially one of this significance."

Witte said that in an emergency the most pressing challenge is to establish coordination among players – not easy when people are trying to understand, in the dark, exactly what happened and to what extent. People and safety are the top concerns. "Steel can be replaced, and bridges rebuilt," Witte commented, "but when a life is lost, there is no way back from that."

Once at the scene Donjon linked up with Navy, Coast Guard and Army Corps counterparts. An initial site sur-

vey allowed the new Unified Command to issue its first instructions. Donjon's team knew, from the accident dynamics, there was no way to remove intact pieces of the collapsed bridge and highway. He cited an old joke at Donjon: "How do you eat an elephant? One bite at a time. That's how we started on the wreckage."

Donjon brought the largest barge crane on the east coast, the Chesapeake 1000, to the Key Bridge site three days after the emergency started. Other assets included a hydraulic wrecking bucket and independent horizontal shear. The 1000 short ton bucket – called "the Grab" – was affixed to the Chesapeake, lowered to where its jaws could close around debris and then lifted. The horizontal shear partnered with an onsite crane barge, cutting debris that could not be cut manually. New underwater survey capabilities included a system known as "Blue View" – a 3-D scanning Sonar generating a clear and detailed view of debris. Operators could develop lift and removal plans based upon actual conditions, not just estimates. However, once the scope of the work became clear, additional equipment was called in from New York plus Donjon hired numerous local operators to assist. Additionally, some equipment was moved from other projects, and other customers.



Dylan Burnell / U.S. Army Corps of Engineers

“We worked to satisfy our obligations,” Witte said, “but when faced with this national disaster most customers understood and supported our need to move to the Key Bridge site.” Witte was insightful on this give-and-take: “One thing that I have always seen in over 45 years of service to the marine community in times of need, is that we all somehow find a way to put aside petty bickering and our normal financial concerns and work together to fix the problem. This is the United States I know, love and am honored to support in our time of need.”

Finally, Witte was asked: what kept you up at night?

“Marine salvage has made me an insomniac,” he remarked. “I am typically up at night worrying about or planning for something as it relates to Donjon Marine.” But he was confident in his team, that they had the right plan, the right equipment and support of the Unified Command.

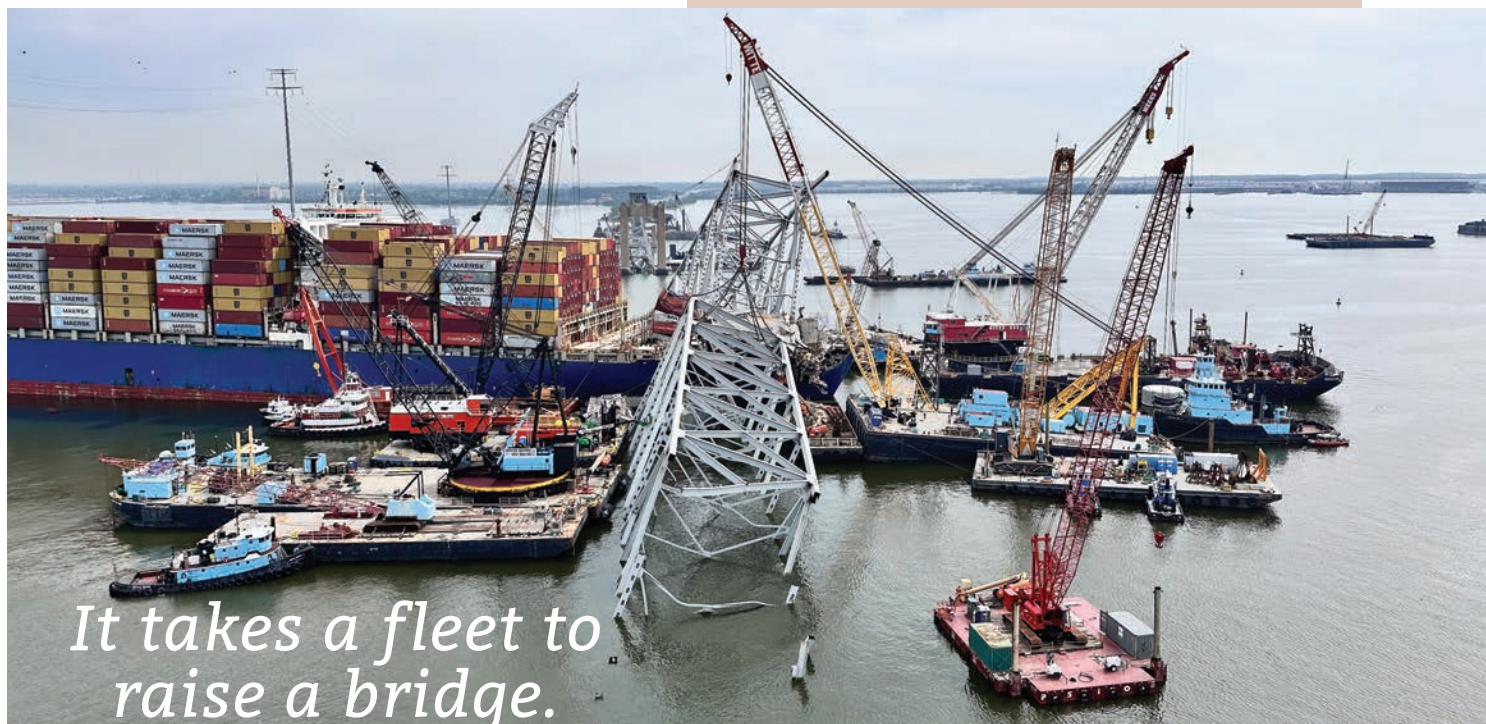
Looking back, Witte said the work proceeded smoothly. “There are always hiccups and even occasional missteps,” he commented, “but on this project, with the right people and an environment of cooperation and a common goal, these hiccups were minimal and nothing that impacted overall performance and timing. Donjon was proud to be a part of the emergency response team. The attitude/de-

sire to work together is the most important lesson we take from incident to incident.”

Because of Herculean efforts of hundreds of unnamed heroes, the Ft. McHenry channel reopened its 50-foot depth, 700-foot width on June 10, one day shy of 11 weeks after the crash.

Event Timeline: A Summary

- March 26: Dali strikes the 1.6-mile Francis Scott Key Bridge near Baltimore, over the Patapsco River, at about 1:30 a.m.
- March 26: Unified Command is established. It includes –
 - The US Coast Guard
 - The Army Corps of Engineers
 - Maryland Department of the Environment
 - Maryland Transportation Authority
 - Maryland State Police
 - Synergy Marine (a private emergency response contractor)
- March 30: Wreckage removal starts
- April 1: The first of two temporary channels is opened
- April 2: The second and deeper temporary channel opens
- May 2: Dali is refloated
- June 10: USACE announces full restoration of the channel

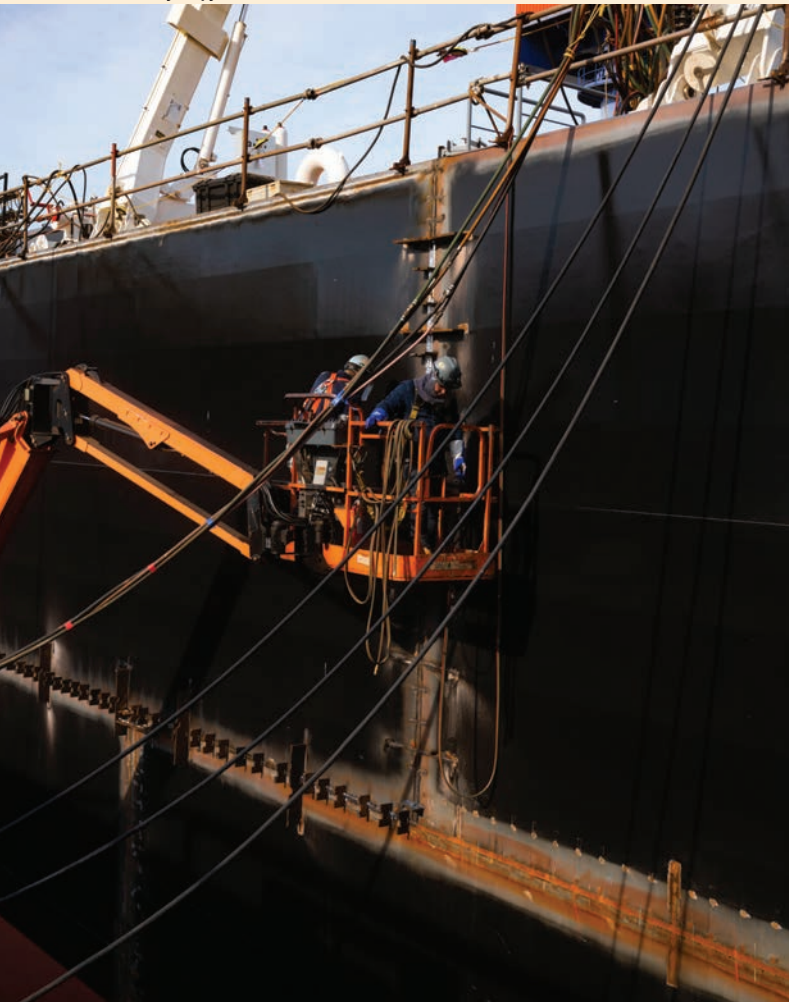


Donjon Marine

Feature

Shipbuilding & Repair

Philly Shipyard



Is US SHIPBUILDING ENTERING A NEW AGE?

By Barry Parker

Shipbuilding in the United States has been eroded over the decades, especially in the construction of deepsea vessels. The oft-cited statistics are worth repeating: at the present time, 180 oceangoing vessels currently operating in worldwide trades are flying the U.S. flag (including builds from non-U.S. yards), contrasted with an overall fleet of roughly 50,000 vessels. As the authors of the recently published book, *Zero Point Four: How U.S. Leadership in Maritime Will Secure America's Future*, authored by a group led by U.S. Coast Guard Rear Admiral (Retired) James Watson, this represents 0.4% (hence the book's title) of the international fleet. The history of the decline has been well documented, with reduced subsidies and the growth of offshore registries over the past decades. At this juncture, there is a groundswell of opinion forming

(from Admiral Watson's team, and others) which, depending on the unpredictable political tides, might begin to reverse the continued ebb in the U.S. international fleet.

For vessels set for domestic employment, the U.S. shipyard scene is more robust, but construction and maintenance/repair work for government sectors has been eclipsing deepsea cargo vessel newbuilds in recent years. The yards have sensibly recognized a need to play in both arenas, and to apply commercial management smarts to execution of government shipbuilding programs. In an early July announcement of a new commercial order for tugs, Eastern Shipbuilding Group (ESG) top executive Joey D'Isernia, stated, "This contract award is more solid evidence that ESG is able to successfully design and build both government and commercial vessels while remaining

Feature Shipbuilding & Repair

Matson

Matson has returned to Philly Shipyard for two more containership newbuilds.



highly competent and competitive in both arenas.”

On the government side, the yard is partnering with Netherlands based Royal IHC on the design of a hopper dredge to be built at its Florida yards, for delivery to the U.S. Army Corp of Engineers in 2027.

ESG has also figured in construction of vessels for the U.S. Coast Guard (USCG) as it replaces an aging fleet, having been awarded a contract to build four “Heritage Class” offshore patrol cutters (OPC). The first vessel in this series, USCGC Argus, was launched in November 2023. The Austal USA yard in Mobile, Ala., will also be participating in OPC building. In the commercial sectors, ESG is completing two ultra-high-spec, Jones Act-qualified MPSVs HOS War Horse and HOS Wild Horse (originally contracted at the Gulf Island Shipyard) for Hornbeck Offshore Services, as well as a Service Operations Vessel (SOV)/ Flotel HOS Rocinate (with an anticipated Q2 2025 delivery), which will be serving the offshore wind sector.

Bollinger, self-described as “...the largest privately-owned shipyard in the United States with 13 shipyards, ...” with facilities in Louisiana and Mississippi, also mixes commercial and governmental work. Recent deliveries in-

clude USCGC Florence Finch, to be deployed in the Pacific Northwest- which it says is the 57th Fast Response Cutter (LOA 154 feet, capable of speeds up to 26 knots) delivered under the USCG program. Commercial activity includes a newbuild ro-ro that will transport rockets from factories to launch sites for United Launch Alliance (ULA), a builder of rockets to propel communications satellites into orbit, as well as for space exploration and national security. According to the yard, “ULA awarded Bollinger Shipyards a contract to build a second roll-on/roll-off vessel, to be named Spaceship, classed for both ocean-going and river service.” Using the new roro vessel, rockets constructed by ULA at sites including Decatur, Ala. will be transported down the inland river system, and then on deepsea passages to launch sites at either Cape Canaveral, Fla., or Vandenberg Air Force Base, Calif. Construction has just begun on the 356-foot-long ship at Bollinger’s shipyard located in Amelia, La. with delivery to ULA expected in January 2026. Naval architects Bristol Harbor Group are partnering with Bollinger on this project. Bollinger, like other yards along the Gulf Coast, is very active with commercial vessel periodic dockings and repair work.

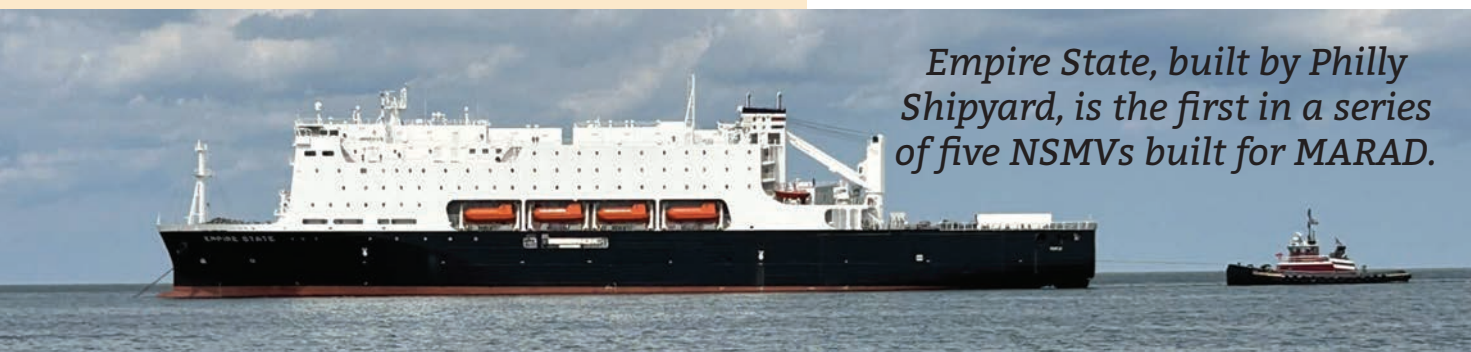
Feature

Shipbuilding & Repair

Offshore wind has certainly accounted for building activity of vessels such as HOS Rocinate. Another recent milestone was the mid-May christening of ECO Edison, a service operations vessel (SOV) built by Edison Chouest, which will be deployed by Ørsted / Eversource's projects at South Fork Wind, Revolution Wind and Sunrise Wind for operations and maintenance. Edison Chouest is constructing another SOV, which will feature a supplemental battery power capability, to be deployed at Equinor's Empire Wind project on a 10-year charter. Windea Enterprise, the second of three crew transfer vessels (CTV) ordered by Windea CTV, a partnership of investment packager

MidOcean Wind and Hornblower Wind- tied to the boat operator, was delivered from St. Johns Ship Building (located in Palatka, Fla). The yard was purchased in 2022 by Americraft Marine (linked to the Logothetis family's Libra Marine). A third CTV is under construction for Windea.

Wind farm construction has been bedeviled by recent cancellations of power purchase agreements, as well as uncertainties about potential policy shifts (with the upcoming election on participants' radar). However, offshore wind has also provided a catalyst for construction to support the vital- but not widely publicized, undersea part of the business. Great Lakes Dredge & Dock (GLDD), best



Empire State, built by Philly Shipyard, is the first in a series of five NSMVs built for MARAD.

Philly Shipyard



Edison Chouest Offshore's ECO Edison is the first newbuild SOV in the United States.

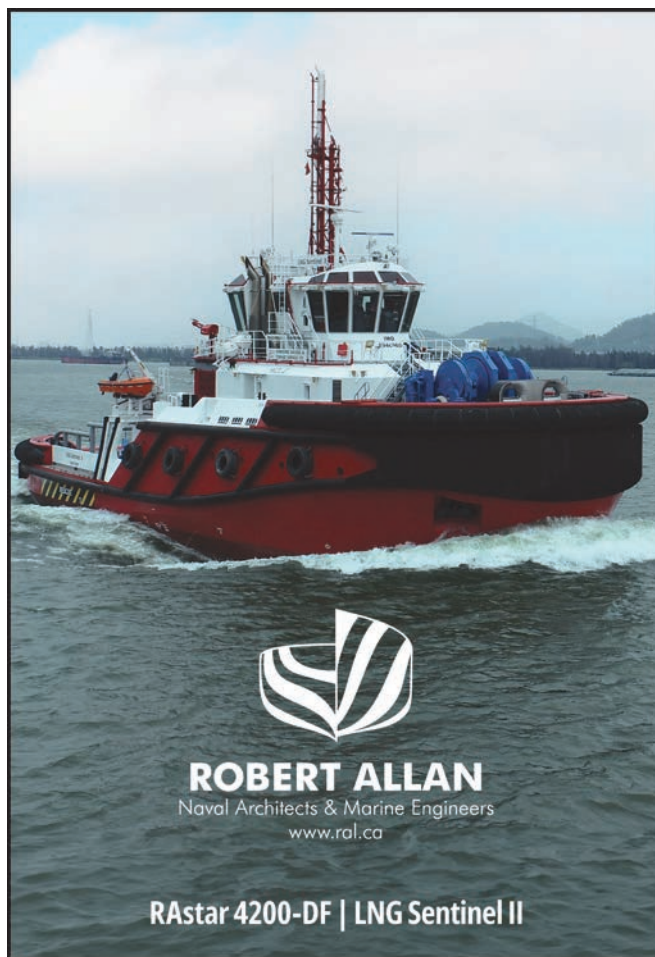
Edison Chouest Offshore


known for its leadership position in the mundane world of harbor maintenance and dredging, will now be an important participant in the emerging arena, describing itself as being “...fully engaged in the rapidly developing offshore wind market in the U.S.” GLDD is behind the construction, at the Philly Shipyard, of a critical piece of infrastructure: Acadia, a Jones Act compliant rock-laying vessel with capacity for 20,000 metric tons of material.

Wind turbines fixed on the sea-bottom require “scour protection”, with rocks, dropped via the “fallpipe” at the rear of the vessel, positioned to stabilize the sea floor around turbine foundations. The GLDD vessel, which will have EPA Tier 4-compliant engines (with the potential to run on bio-fuels), a battery storage system to shave peak loads, and plug-in capability for sourcing shore power when loading up (alongside a quarry near Albany on New York’s Hudson River), is scheduled for delivery in late 2024. When completed, the vessel would be working Equinor’s Empire Wind I and Ørsted’s Sunrise Wind projects. In its traditional realm, GLDD took delivery of a newly constructed trailing suction hopper dredge Galveston Island (6,500 cubic yard capacity) in late 2023, from Conrad Shipyard, put to work in early 2024. A sister Amelia Island, is under construction at Conrad’s Deepwater South yard in Amelia, La., with delivery anticipated in 2025.

In June, 2024, Philly Shipyard (which has also built tankers and containerships for the U.S. commercial fleets) announced that it would be changing hands, with companies in the Hanwha Group (a S. Korean conglomerate whose holdings include the shipyards previously under the Daewoo Shipbuilding & Marine Engineering, or DSME, brand) inking a deal to acquire it. According to published announcements, the \$100 million deal would be set to close in late 2024. The transaction is subject to various approvals, including by the CFIUS (Committee of Foreign Investments in the U.S., tied to the U.S. Department of the Treasury and focusing on national security implications of foreign investments in U.S. businesses). Foreign ownership is not new for the yard; it’s been under Norwegian ownership since the 1990s. The seller in the new deal is Philly Shipyard ASA, a company listed on the Oslo Stock Exchange, with majority backing by companies linked to the Norwegian industrial investment company Aker ASA.

Philly Shipyard was awarded a contract for three Aloha




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Feature

Shipbuilding & Repair


Class containerhips for Matson Navigation, worth around \$1 billion, in late 2022. According to the yard, “The vessels are contracted for delivery in 2026 and 2027,” and are now in a “pre-production” phase. The 3,600 TEU ships (able to achieve 23 knot speeds), with LNG fuel capability, will be serving in Matson’s China-Long Beach (CLX) service. Philly had previously built two similar vessels for Matson, delivered in 2018 and 2019.

The commercial/governmental interplay is further on display in South Philadelphia. The yard was awarded a contract to build five National Security Multi-Mission Vessel (NSMV) vessels that will serve as training vessels at maritime academies, the first of which, Empire State, serving SUNY Maritime, in New York, was delivered in late 2023. These ships, being constructed under a federal contract being administered by Tote, will also have additional roles, supporting humanitarian assistance and disaster relief projects. According to the yard, “The NSMV Program is the first government sponsored ship building program to utilize the Vessel Construction Manager (VCM) model. This model places the responsibility for the selection and oversight of the shipyard on a government contractor that

utilizes commercial best practices to manage the project.” In recent months, NSMV 3 (for Maine Maritime) was launched in April 2024 (with delivery expected in 2025) and steel cutting of NSMV 5 (for Cal Maritime) occurred in February 2024. NSMV 2 is expected to be delivered to Massachusetts Maritime Academy in late 2024.

Philly Shipyard had indicated a hope to apply the VCM template to additional work. Separately, the yard, occasionally bedeviled with labor issues post-pandemic, was the recipient of an \$800,000 grant awarded by the U.S. Maritime Administration (MARAD) Small Shipyard Grants program, announced in July, 2024, to be devoted to a program for hiring apprentices at the yard.

The evolving regulatory environment is also driving orders for tugs and harbor craft from U.S. yards. A recent case-in-point is the order mentioned above- by Foss Marine (a unit within the Saltchuk group of companies) for a quartet of ship assist tugs to be delivered in 2026. The boats, to be built at yards of ESG in the Florida panhandle, will be compliant with EPA Tier-4 standards (with a pair of 3500 HP Caterpillar 3516E engines) as well as meeting the newly enacted California Air Resources Board (CARB)



Bollinger Shipyards is constructing a 356-foot-long roll-on/roll-off rocket transport vessel for aerospace manufacturer ULA.

Bollinger Shipyards

Feature Shipbuilding & Repair

Great Lakes Dredge & Dock Company

requirements. Designed by Robert Allan, they will serve ports along the U.S. West Coast. In early 2024, Master Boat Builders, with its yard at Coden, Ala., delivered eWolf, an all-electric tug that will handle ship assist work in San Diego, to Crowley Maritime.

But in the background of yards navigating the channels between commercial and government work, the still muffled sounds are getting louder. In mid-July 2024, at a session hosted by the Hudson Institute- a Washington, D.C think-tank, House Speaker Mike Johnson (R-Louisiana) came out strongly in favor of renewed construction of deep-sea merchant ships in U.S. yards. Two months earlier, a bipartisan quartet of legislators (two Republicans- U.S. Senator Marco Rubio and U.S. Congressman Mike Waltz, along with two Democrats- U.S. Senator Mark Kelly and U.S. Representative John Garamendi) issued a commentary: Congressional Guidance for a National Maritime Strategy.

Interestingly, views on the frequently controversial Jones Act (affecting vessels in U.S. coastwise, Hawaii-Pacific Islands, Alaska, or Puerto Rican trades) differ among the maritime security related commentators. In the document by the four legislators, the Jones Act was strongly supported. The Hudson Institute also supported the Jones Act, with commentator Michael Roberts (a former Crowley Maritime executive now a Senior Fellow at the think-tank) explicitly linking the legislation with national security. Yet, The Heritage Foundation, another think-tank strongly supportive of U.S. maritime security, has come out consistently and strongly against the Jones Act.



Great Lakes Dredge & Dock Company's subsea rock installation vessel, Acadia, being built to support the domestic offshore wind industry, will be the first of its kind built in the U.S.

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Tech Files: Shipyard Tools

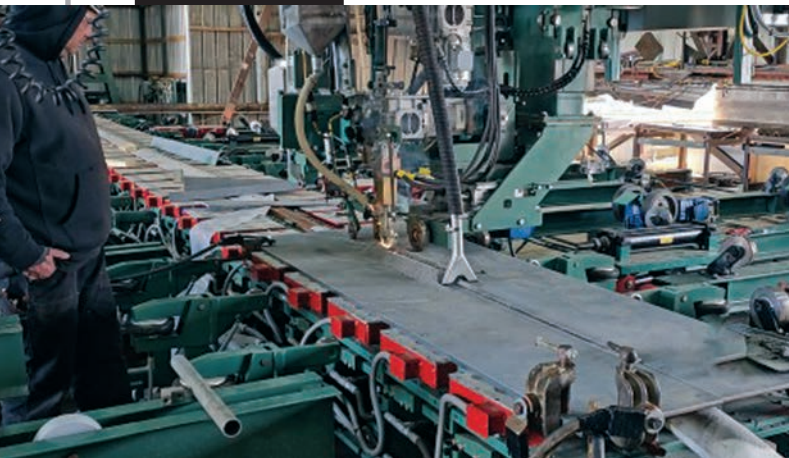
Shipbuilding is one of the world's oldest industries, yet this vital sector is constantly evolving. Today, U.S. shipyards are investing to bolster their capabilities as their needs expand and new technologies enter the market.

Nichols Brothers Adds One-sided Welder

In May, Nichols Brothers Boat Builders (NBBB) in Freeland, Wash. said it acquired and was commissioning of a new Ogden One-Sided Seam Welding Machine, in a move to enhance the yard's steel fabrication process. The machine, purchased with the support of a \$1.2 million MARAD Small Shipyard Grant secured in 2022, enables welding to be done from a single side up to $\frac{3}{4}$ " for a full class double continuous butt weld, eliminating the need for time-consuming and labor-intensive double-sided welding techniques, NBBB said, noting advanced automation features and precision welding technology ensure consistent weld quality and accuracy.

Gavin Higgins, CEO at NBBB, said, "The One-Sided Welder represents a significant advancement in efficiency and productivity, allowing us to deliver high-quality steel structures to our clients with unmatched speed and precision."

Nichols Brothers



NBBB

Baker Industries Increases Capacity

Baker Industries, a Lincoln Electric company, supplies tooling, shipboard components and advanced contract manufacturing services to OEM and Tier-1 manufacturers in the shipbuilding and maritime industries, among others. In July, amid increasing demand for high-precision 5-axis machining of large components in the shipbuilding sector, the company announced an expansion of its CNC machining arsenal via the acquisition of two additional EMCO MECOF Powermill gantry machining centers.

"Few contract manufacturers have the equipment and experience to machine such large components and meet very tight quality requirements. Baker's existing Powermill, purchased in 2017, is one of North America's largest 5-axis machining centers, and it has seen a significant increase in workload. We knew we needed to increase capacity for large-scale machining by purchasing more equipment of a similar size, and we chose the Powermills specifically due to the strong

Baker Industries



Baker Industries

performance of our existing one over the past seven years,” a Baker Industries spokesperson told *Marine News*.

“The EMCO MECOF Powermill HP5 gantry machining centers are equipped to enhance precision and efficiency. The machines feature large envelopes with axis travels of about 26 x 13 x 5 feet, making them ideal for handling large-scale machining tasks like those often required by shipbuilders. They are outfitted with two interchangeable heads: a 6,000-rpm universal head and a 12,000-rpm high-speed head, both of which offer automatic head-changing capabilities. This versatility enables the machines to tackle a wide range of complex machining operations with high precision.

“The Heidenhain TNC 640 HSCI controls provide several advantages, including versatility, high-speed contouring control for improved surface quality and accuracy, integrated dynamic collision monitoring for enhanced safety and reliability, and an intuitive user interface that simplifies complex machining processes. They also allow us to volumetrically calibrate the Powermills quickly using Accuracy for Machines (AfM) software and an API laser tracker, increasing the accuracy of the machines and assisting in diagnostics for upcoming maintenance projects. Overall, the controls ensure that the Powermills deliver consistent and reliable performance, making them a valuable addition to our machining arsenal.”

The machines will support production of large, high-precision parts for a variety of applications—including hulls, structural assemblies, propulsion systems, payload systems, and more—as well as tooling and fixtures used in assembly. “By leveraging these advanced machines, we can ensure faster project completion times and maintain the highest quality standards, which are critical for the demanding requirements of both the

commercial and military shipbuilding sectors,” the spokesperson said.

Viega Earns Additional NAVSEA Approval

Viega’s systems provide consistent, reliable connections in a fraction of

the time while eliminating hot work. The company recently revealed it has earned additional Naval Sea Systems Command (NAVSEA) approval for press connect fittings (PCF) that can be used on U.S. Navy aircraft carriers. Following previous approvals for

Viega



Viega

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MegaPress CuNi fittings in ½” to 2” sizes, the new NAVSEA approval includes MegaPress CuNi 90° elbows, 45° elbows, tees, reducing tees, reducers and couplings in ½” thru 2”.

“Aircraft carriers are the largest and most visible asset of the U.S. Navy. Each ship takes six years to build at a cost of \$13 billion and has a design life expectancy of 50 years or more,” said Jesus Herrero, Marine Program Manager. “For Viega to be approved for service on these ships makes a strong statement from the U.S. Navy in recognizing that our fittings meet the most stringent requirements.”

The NAVSEA approval covers 15 systems where Viega PCFs can be used. To obtain this approval, the Navy evaluated all the tests Viega had ever conducted for its commercial applications and added 15 tests that were more rigorous than those Viega had already qualified for and passed. Some of the additional tests included shock, vibration, tension, flexure fatigue and burst tests. All of these tests subjected Viega’s fittings to the upper limits of stress and fatigue.

Miller Debuts New Laser Welder

Arc welding products manufacturer Miller Electric has released its new OptX 2kW handheld laser welder, best suited for precision welding applications with tight fit-up with minimal gaps where high productivity is needed but automations are too costly. The solution was developed in collaboration with IPG Photonics Corporation with the aim to both boost productivity and help fill the ongoing shortage of skilled welders across the United States and Canada.

It’s estimated that the U.S. is suffering a welder shortage of 330,000 skilled laborers through 2028, an average of 85,200 jobs to be filled annually. According to Miller, its OptX 2kW will help close the productivity gap with quick and easy training for both new and seasoned welders to drive output and productivity, faster travel speeds and reduced heat input, and the near elimination of pre- and post-weld processing.

Dave Lambert, group president of sales and marketing at Miller, said, “As the welder shortage continues each day, Miller is proud to offer the OptX 2kW to support busy welding shops, alleviate their labor shortage and deliver to their bottom line.”

New Indicator from L.S. Starrett

The L.S. Starrett Company, manufacturer of precision measuring tools and gages, metrology systems and more, has unveiled its No. W4900 Wireless Digital Electronic Indicator innovation, a precision measurement gage featuring touchscreen technology, multiple resolution and color settings, digital and analog readouts in the same indicator, seven languages, wireless output and many other unique features

David Allen, Vice President, said, “By eliminating buttons and utilizing touchscreen technology we have redefined comparative indicating measurement, developing an intuitive, fast, easy-to-use, highly accurate and rugged wireless gage. And the W4900 Indicator is assembled in America with U.S. and globally sourced materials, right here in our Athol, Mass. facility.”

Miller Electric



Miller Electric

L.S. Starrett Company



L.S. Starrett Company



WETA

The first-of-its-kind hydrogen-fueled ferry Sea Change has commenced public service, providing zero-emissions transport for passengers in San Francisco Bay.

The groundbreaking commercial passenger vessel is the world's first powered 100% by zero-emission hydrogen fuel cells. It was developed by owner SWITCH Maritime with grant support from the California Air Resources Board (CARB) as a solution to reduce emissions from the marine transportation system.

A group of private and public sector partners came together to officially launch the Sea Change on July 12, and the vessel started operations on July 19.

The 75-passenger Sea Change is being operated initially by San Francisco Bay Ferry's contract operator Blue & Gold Fleet on a route between Pier 41 and the Downtown San Francisco Ferry Terminal for a six-month trial period intended to demonstrate the viability of the fuel cell technology. The demonstration, which allows passengers to ride for free, is sponsored by a group of partners that includes Chevron New Energies; the Golden Gate Bridge, Highway, and Transportation District; and United Airlines.

Built by Bay Ship and Yacht in Alameda, Calif. and All American Marine in Bellingham, Wash., based on a design that originates from Incat

Crowther, the 70-foot aluminum catamaran was launched in 2021, but its entry into service has been delayed by a combination of factors, including the pandemic as well as challenges associated with gaining U.S. Coast Guard approval for the use of its novel propulsion technologies. A Certificate of Inspection (COI) issued by the Coast Guard earlier this year cleared way for the ferry to commence operations.

Sea Change features an integrated hydrogen power system from Zero Emission Industries, with 360kW of polymer electrolyte membrane (PEM) fuel cells from Cummins and 100 kWh of XALT lithium-ion batteries, powering 600kW of electric motor propulsion from BAE Systems. The only emissions produced are water vapor and heat.

According to SWITCH, the clean-burning propulsion system enables transit distances up to 300 nautical miles and speeds up to 15 knots—operational capabilities and ranges similar to those of diesel-powered vessels. Its services speed will be about 8-12 knots.

"This is not just the start of service for the Sea Change, but hopefully also the start of much more active investment in the energy transition of the maritime industry in California and beyond," said Pace Ralli, CEO of SWITCH Maritime.

Sea Change is part of California Climate Investments, a statewide initiative that delivers cap-and-trade funds toward low-carbon transportation, community air protection and other initiatives.

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Vessels

Golden Gate Ferry Newbuilds



Golden Gate Ferry

Golden Gate Ferry will build a fleet of eight new hybrid vessels to improve operational efficiency and reduce emissions from its San Francisco Bay Area commuter ferry service. Electrical contracting company McKay on Monday announced it has been appointed by naval architecture firm

Aurora Marine Design to serve as the electrical systems integrator for the Liwa Class newbuild program, which will commence in early 2025 to retire and replace Golden Gate Ferry's existing fleet of with a series of eight new 50.5-meter-long, 500-passenger catamarans by 2033.

Golden Gate Ferry is a commuter ferry service operated by the Golden Gate Bridge, Highway and Transportation District. It runs four passenger ferry routes plus special event services connecting Marin County with the City and County of San Francisco.

The new vessels will help the operator achieve greater operational efficiency and exceed the new emission requirements set by the California Air Resources Board's (CARB) Commercial Harbor Craft (CHC) regulations.

The vessels will utilize McKay's custom human machine interface (HMI) and alarm, control and monitoring system (VCAM), as well as Danfoss' hybrid power generation system. Each will be equipped with EPA Tier 4 certified MAN diesel engines with diesel particulate filters (DPF) and selective catalytic reduction (SCR) systems.

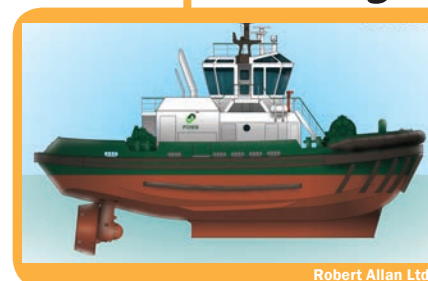
Eastern Shipbuilding Group (ESG) has been awarded a contract to construct four new escort tugs for Saltchuk Marine's Foss Maritime. The vessels will be built at ESG's Allanton and Port St. Joe facilities, in Florida, with delivery expected in 2026.

The order marks the beginning of Saltchuk Marine's long-term fleet renewal project, with the new tugs set

to support West Coast port operations and comply with EPA Tier 4 and California Air Resources Board (CARB) environmental requirements.

The newbuilds will be RAport 2600 ship assist/escort tugs designed by Robert Allan Ltd. Each will be equipped with Caterpillar 3516E engines (3,500 hp @ 1,800 rpm) and Schottel RudderPropeller SRP 510 thrusters.

Foss Tugs



Robert Allan Ltd

LA Port Police Vessel



AAM

Bellingham, Wash. shipbuilder All American Marine (AAM) won a contract to build a new patrol boat for the Los Angeles Port Police. The 65- by 24-foot aluminum catamaran, will employ the latest hull design improvements from Teknikraft Design, providing improvements in fuel efficiency and vessel

performance characteristics beyond what was initially achieved with the All American Marine built dive vessel that was delivered in 2012 to the LA Port Police. This vessel is engineered to operate in challenging conditions along the southern California coast, in both inland and nearshore waters. With the inclusion of the Teknikraft "eco-bow" design, this patrol vessel can maintain ride stability in exposed waters, with a cruising speed of 20 knots and a maximum speed of approximately 25 knots.

The vessel is designed to U.S. Coast Guard Subchapter T regulations, and it

will be fitted with comprehensive fire suppression systems, life-saving equipment, and robust structural integrity to ensure the safety of the crew and passengers. The vessel's key features include twin Cummins QSM11-715 engines with fixed-pitch propellers, providing a combined power output of 705 bhp at 2,500 rpm.

For specialized dive operations, the vessel will include an A-frame for deploying and retrieving advanced SONAR and remotely operated underwater vehicle (ROV) along with a dive compressor foundation and storage solutions for diving gear.

Charles Norman Shay



Steiner Shipyard

Bayou la Batre, Ala. shipbuilder Steiner Shipyard has delivered a new ferry for the Maine Department of Transportation. The 104-foot passenger/vehicle ferry, named Charles Norman Shay, arrived to the ferry dock in Rockland, Maine on June 7.

The newbuild was designed by Gilbert Associates with capacity to carry 149 passengers and seven cars. It will operate on the Maine State Ferry Service's (MSFS) longest route, between Rockland and Matinicus Island (23 miles), serving as an upgrade to the ferry service that transports nearly 500,000 passengers and 190,000 vehicles annually.

The vessel is named after the Maine veteran and member of the Penobscot Nation who served as a combat medic during the D-Day invasion.

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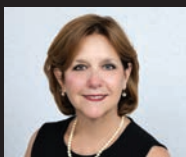
Sperling



Graham

Sperling Takes Over as Tidewater CEO

Tidewater Transportation and Terminals COO Johan Sperling has been promoted to succeed retiring CEO Todd Busch.



Bouchard



Okon

USACE Names New Chief

The U.S. Army has selected Maj. Gen William H. "Butch" Graham Jr. to be its next chief of engineers and commanding general of the Corps of Engineers. If confirmed, he will succeed Lt. Gen. Scott A. Spellmon.



Johnson



Grujic

SNAME Names Bouchard Executive Director

The Society of Naval Architects and Marine Engineers has appointed Elizabeth Bouchard to succeed Valerie Hutnan as the organization's next executive director.



Verloka



Dettor

Okon Appointed SUNY Maritime President

Rear Admiral John Okon has taken over as president of SUNY Maritime College, replacing retiring president Rear Admiral Dr. Michael A. Alfultis.



Humphreys



Meyers

Main Maritime Names Interim President

Craig Johnson has been named interim president of Maine Maritime Academy following the retirement of Jerry Paul.



Hinkebein



Hogan

Curtin Maritime Names Grujic CFO

Curtin Maritime has appointed Sandra Grujic as its new chief financial officer and a member of the company's executive leadership team.



Tague



Wise

Verloka Joins Southern Devall

Southern Devall has appointed An-

drey Verloka as its new director of cargo stewardship and fleet allocation.

Resolve Marine Taps Dettor to Lead New Unit

Resolve Marine has promoted Daniel Dettor as director of its newly created business development unit.

Humphreys Takes the Helm at Attender

Kevin Humphreys is expanding his role at Attender from investor and strategic advisor to the board, to its new chief executive officer.

DSC Dredge Promotes Meyers

DSC Dredge has promoted Waldon Meyers to the position of general manager.

Bollinger Shipyards Hires Hinkebein

Bollinger Shipyards has hired Andrew Hinkebein as its new director of government affairs.

Hogan Succeeds Robertson as Port of Corpus Christi COO

The Port of Corpus Christi has named Kyle Hogan the incoming chief operating officer, to succeed Clark Robertson, who will retire on September 3.

Crowley Promotes Tague

Crowley has named Walter Tague as vice president of sales and supply for its Crowley Fuels businesses unit.

Darley Names Wise CFO

Darley announced that Lee J. Wise has been named chief financial officer, effective July 22, 2024.

Products

1 In-Mar Solutions



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<https://vetus.com/usa/>

3. MJP X-HT Waterjet

Marine Jet Power has unveiled its new X-HT waterjet designed for efficiency in low to medium speed applications. MJP said the X-HT jet delivers more thrust compared to others in the same range and is optimized for efficiency at slow speeds, making it well-suited

2 VETUS Maxwell



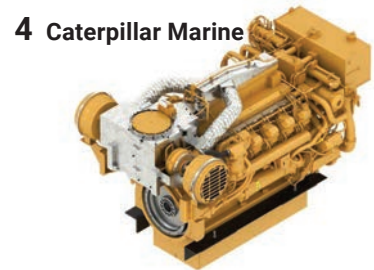
for crew transfer vessels. The compact design allows for larger diameter jets to be fitted into narrower hulls, maximizing thrust without requiring extensive modifications to the vessel's structure. The X-HT is currently available in three sizes, the 280 X-HT, 310 X-HT, and 350 X-HT, with maximum power ratings of 611 kW, 800 kW, and 1000 kW respectively.

4. Cat 3500E Engine

Caterpillar Marine plans to deploy its first set of field demonstrator methanol dual-fuel 3500E marine engines in 2026. Cat 3500E marine engines will utilize innovative dual-fuel technology that leverages proven diesel fuel systems and supports vessels' low-pressure – below 10 bar – fuel systems. The methanol dual-fuel Cat 3500E engine targets the same performance and durability as the current 3500E diesel engine while meeting emission standards and delivering 100% power. Following significant advances in the development of this technology, the engine manufacturer announced it has signed a memorandum of understanding with Damen Shipyards Group for the 2026 trials.



3 Marine Jet Power



4 Caterpillar Marine



5 Cox Marine

5. Cox Marine 350 V8

Cox Marine announced the 350hp variant of its V8 diesel outboard architecture has achieved EPA Tier III approval for commercial and recreational applications, clearing way for the British diesel outboard manufacturer to open its order book in anticipation of production commencing in August. Unveiled in February, the 350 V8 is the latest addition to Cox Marine's diesel outboards lineup, introduced as an evolution of the company's 300hp twin turbo V8, launched in 2018.

2024 Editorial Calendar

January 2024

E-Magazine Edition

**Design & Construction:
Advances in Naval
Architecture, Marine
Engineering & Shipbuilding**

February 2024

U.S. Offshore Wind

- Passenger Vessels
- Mariner Training & Education
- Safety Equipment

Event Distribution:
CMA: Mar 12-14, Stamford, CT

March 2024

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**U.S. Inland Waterways
Transport:
Operations, Infrastructure
& Dredging**

April 2024

Towboats, Tugs & Barges

- 2024 Shipbuilding Report
- Navigation Technology
- Power & Propulsion

Event Distribution:
OTC: May 6-9, Houston, TX

May 2024

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**U.S. Maritime Workforce:
From Offshore to Inland
Waterways & Shipyards**

June 2024

Combat & Patrol Craft

- Navy & Coast Guard Shipbuilding
- Autonomous Vessels
- Workboat Communications Wind

Event Distribution:
Multi-Agency Combat Craft (MACC)
Marine Money Week, New York, NY

July 2024

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**The Green Marine Annual:
Improving Environmental
Performance & Efficiency**

August 2024

Boatbuilding & Repair

- Naval Architecture & Marine Engineering
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- Dredging

Event Distribution:
SMM 2024, Hamburg, Germany

September 2024

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October 2024

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- Offshore Energy
- Electrification & Alternative Fuels
- Deck Machinery & Cranes Autonomous

Event Distribution:

November 2024

Workboat Edition

- Top Vessels of 2024
- Top Tech & Service Innovations of 2024
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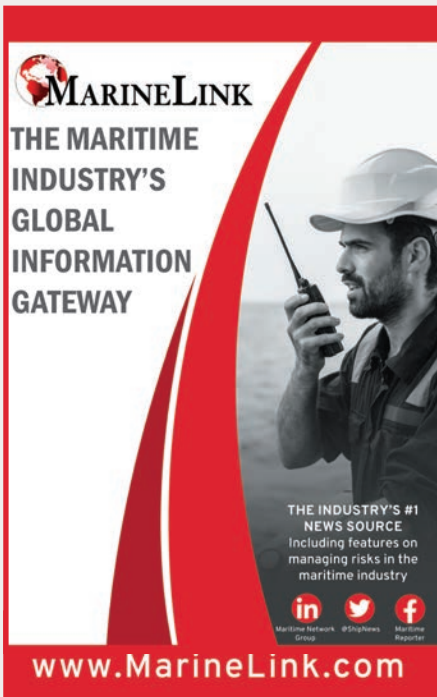
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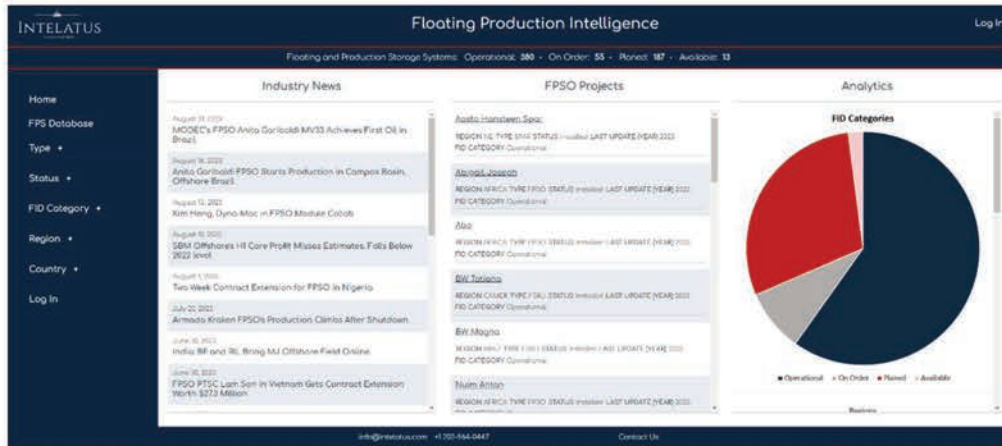


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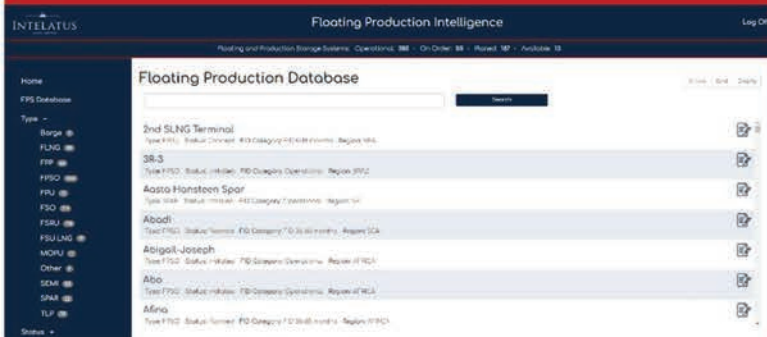
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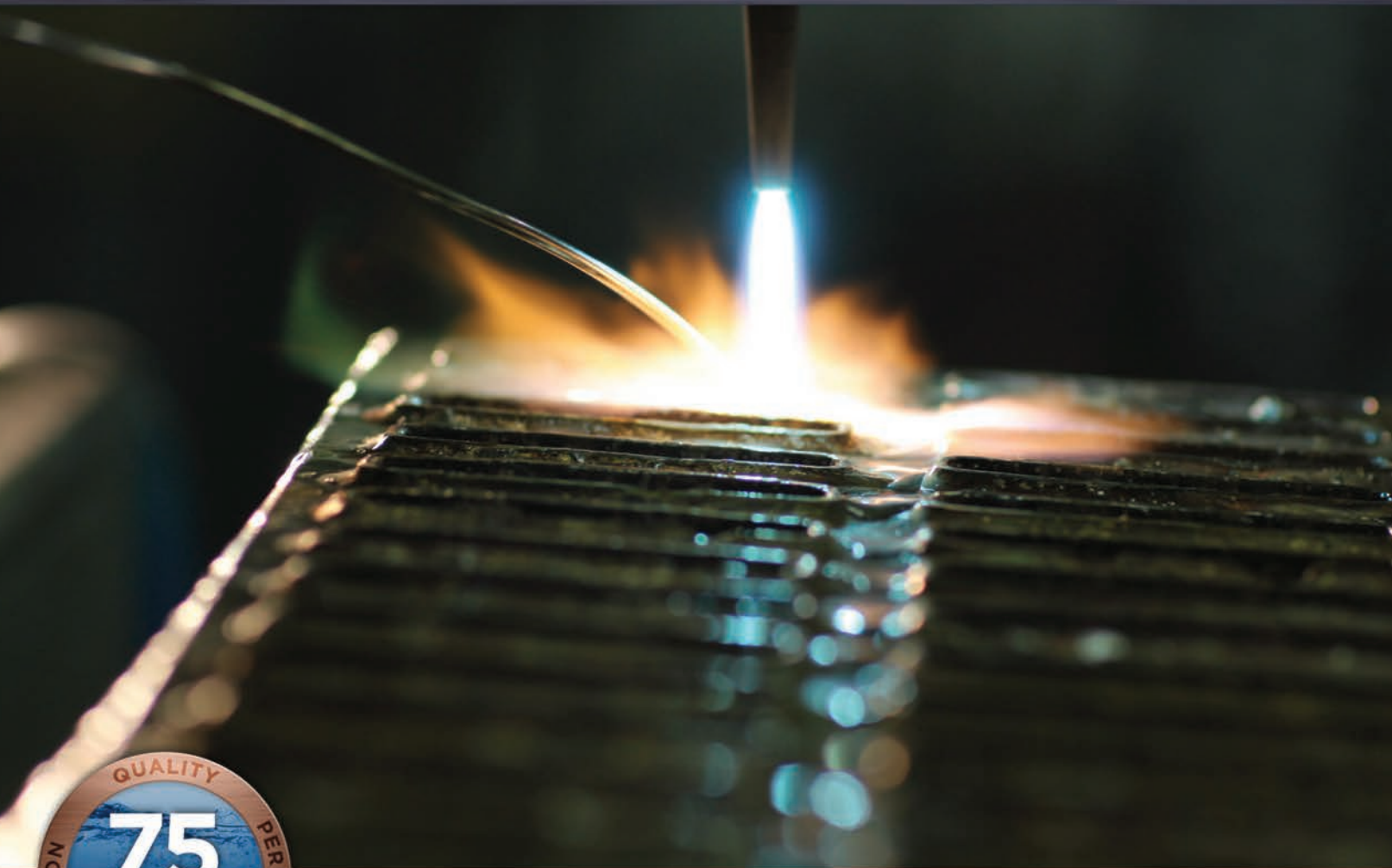
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