The Information Authority for the Workboat • Offshore • Inland • Coastal Marine Markets

Volume 34 • Number 8

Marine News

AUGUST 2023

www.marinelink.com

Shipbuilding

Answering the Call for US Offshore Wind

Need a Lift?
Shipyards Add Brawn with New Equipment

Naval Architecture
One-on-one with EBDG's Mike Complita

Vessel Comms
The Fascinating History of David Clark Company

Our Marine Headset Systems can mean the difference between an operation from hell, and a hell of an operation.

David Clark Marine Headset Systems

Crews on board patrol boats, fire/rescue craft, offshore service vessels, tugs, and other workboats must perform a variety of complex operations. Wind noise, loud engines and pounding through rough waters can make boat crew communication extremely challenging.

David Clark Marine Headset Systems offer clear communication and rugged reliability in the harshest marine environments, while enhancing the safety and situational awareness of boat crew members.

Call 800-900-3434 (508-751-5800 Outside the USA) to arrange a system demo or visit www.davidclark.com for more information.

Series 9100 Digital Communication System
Scalability • Versatility • Simplicity

David Clark

WWW.DAVIDCLARK.COM

An Employee Owned American Company

DMWMARINEGROUP

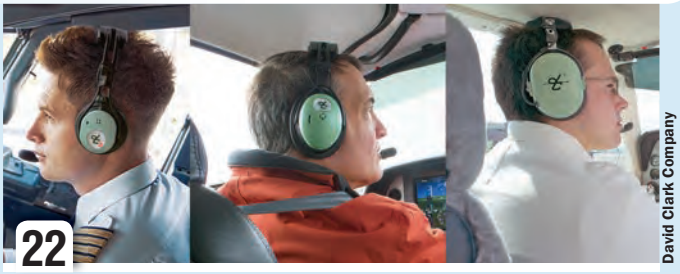
marine cranes

www.dmwmarinegroup.com
610.827.2032

Contents

Marine News August 2023 • Volume 34 Number 8

Features



David Clark Company

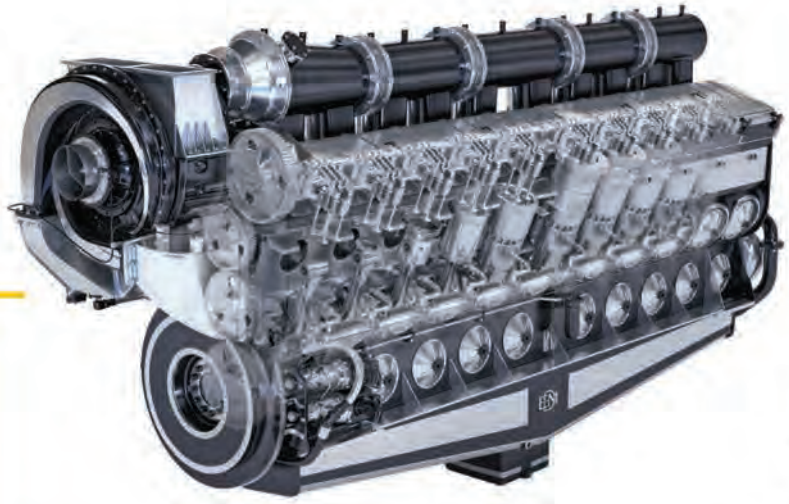
Eric Haun

St Johns Ship Building

On the Cover

U.S. shipbuilders are answering the call to construct a new fleet of specialized vessels to support the nation's burgeoning offshore wind industry.

Marine Systems, Inc.



The E 23 (IMO II-EPA T3) and E 23B (IMO III-EPA T4F) are available in 8, 12, 16 and 20 cylinder configurations with power ratings from (1675 hp) to (5500 hp).
*"Please consult MSI for specific application ratings"

TWO CYCLE ADVANTAGE

ENDURING DESIGN. LEGENDARY HERITAGE.

BEST IN-CLASS TRANSIENT RESPONSE

- E 23 offers the performance of a high speed engine with the durability advantage of a medium speed engine.
- Ample power margin throughout the entire operating speed range allows for optimized engine sizing and a single speed reduction gear.
- Avoids engine lugging under demanding vessel maneuvers.
- Accepts 100% block load in constant speed applications.

TOTAL COST OF OWNERSHIP ADVANTAGE

MAXIMUM UPTIME.

PARTS – LABOR – FLUIDS

Downtime is expensive. EMD engines are designed to minimize the amount of time needed for maintenance and repairs in order to maximize your productivity, keeping operational costs to a minimum.

- Reduced fuel consumption over previous models due to EPA T4F / IMO III technologies and low idle speed.
- Easy non-invasive inspection of cylinder components for simple predictive condition-based maintenance.
- Simple overhauls to minimize downtime – Power Assembly (head, liner, piston, rod) can be removed and replaced as one unit.
- Closed loop dosing control system optimizes (Diesel Exhaust Fluid) DEF usage.
- No oil change required between overhauls unless indicated by oil sample analysis.
- Lowest life cycle cost per horse power / hours of operation.

Ph: (985) 223-7100 • www.marinesystemsinc.com

Editor's Note

Eric Haun, Editor,
haun@marinelink.com

The shipbuilding business is not for the faint of heart. Just like the relentless waves that shape the shores, shipbuilders must confront endless challenges, from mastering the art of design and construction to navigating the ever-changing tides of technology and innovation, market cycles and labor shortages. And we cannot overlook the human aspect of this trade; behind every vessel exists countless stories of individuals whose hard work breathes life into steel.

In the United States, many shipyards are currently answering the call of the emerging U.S. offshore wind industry, which will require a large fleet of specialized vessels for construction, operations and maintenance activities. The story starting on page 34 recaps work already underway to start building this fleet and outlines demand drivers for the industry going forward. Spoiler alert: a large number of new vessels will be needed by the middle of next decade, creating opportunities for shipyards of all sizes.

Many U.S. shipyards are also investing mightily in new equipment—including lifts, hoists, cranes and transporters—that will help them to win more business and perform newbuild and repair work more efficiently. Flip to page 28 to read about several recent and ongoing yard upgrade projects and the new innovations helping shipyards to do what they do best: get the job done.

Marine News (ISSN# 1087-3864) is published bi-monthly (6 times per year) by Maritime Activity Reports, Inc. 118 E 25th St. New York, NY 10010-1062. Periodicals Postage Paid at New York, NY and additional mailing offices. POSTMASTER: Send all UAA to CFS. NON-POSTAL AND MILITARY FACILITIES send address corrections to Marine News 850 Montauk Hwy. #867 Bayport, NY 11705

Marine News

(ISSN#1087-3864) (USPS#013-952)

New York: 118 E. 25th St., New York, NY 10010
tel: (212) 477-6700; fax: (212) 254-6271
www.marinelink.com

CEO
John C. O'Malley • *jomalley@marinelink.com*

Publisher & Editorial Director
Greg Trauthwein • *trauthwein@marinelink.com*

Editor
Eric Haun • *haun@marinelink.com*
Tel: 212-477-6700

Contributing Writers
Tom Ewing, James Kearns, Barry Parker, Jeff Vogel

PRODUCTION
Production & Graphics Manager
Nicole Ventimiglia • *nicole@marinelink.com*

SALES
Vice President, Sales & Marketing
Terry Breese • ***breese@marinelink.com***
Tel: 561-732-1185 Fax: 561-732-8414

Advertising Sales Managers
Lucia Annunziata • ***annunziata@marinelink.com***
Tel: 212-477-6700 **ext 6240** Fax: 212-254-6271

John Cagni • ***cagni@marinelink.com***
Tel: 631-472-2715

Frank Covella • ***covella@marinelink.com***
Tel: 561-732-1659 Fax: 561-732-8063

Mike Kozlowski • ***kozlowski@marinelink.com***
Tel: 561-733-2477 Fax: 561-732-9670

Gary Lewis • ***lewis@offshore-engineer.com***
Tel: 516-441-7258

Managing Director, Intl. Sales
Paul Barrett • *ieaco@aol.com*
Tel: +44 1268 711560 Fax: +44 1268 711567

CORPORATE STAFF
Manager, Marketing
Mark O'Malley • *momalley@marinelink.com*

Accounting
Esther Rothenberger • *rothenberger@marinelink.com*
Tel: 212-477-6700 **ext 6810**

Manager, Info Tech Services
Vladimir Bibik

CIRCULATION
Kathleen Hickey • *k.hickey@marinelink.com*
Tel: 212-477-6700 **ext 6320**

TO SUBSCRIBE:
Subscriptions to ***Marine News*** (9 printed issues) for one year are available for $50.00; Two years (18 printed issues) for $80.00. Send your check payable to:
Marine News, 118 E. 25th St., New York, NY 10010

Member
BPA WORLDWIDE BRAND REPORT
Business Publications Audit of Circulation, Inc.

CELEBRATING SAFETY

Working on the waterfront requires a commitment to safety. As a leading USL&H provider, we take that commitment seriously. That's why each year we celebrate our members with the strongest safety cultures in the business. Congratulations to our 2022 Safety Award winners.

Alabama Shipyard, LLC
Cardinal Plant
CS Marine Constructors, Inc.
Curtin Maritime
Donjon Marine Co., Inc.
Energy Management Company, L.L.C.
Evansville Marine Service, Inc.
General Steamship Agencies, Inc.
Green Toes GRP & Coatings, Inc.
Gulf Coast Marine Fabricators
Gulf South Services, Inc.
JB Marine Service, Inc.
Keppel AmFELS Inc.
LEAD Marine
Lind Marine LLC
Lydia Ann Channel Fleet
Manson Construction Co.
Masse Contracting Inc.
Pacific Fishermen Shipyard and Electric
Port Manatee Ship Repair & Fabrication
Portland Lines Bureau, Inc.
Prime Time Coatings, Inc.
RANDIVE, INC.
Rio Marine
the COOPER GROUP of companies
The Hiller Companies
The Quality Companies LLC
Thomas J. Feeney Enterprises, Inc.
Upper River Services, LLC
Watco Transloading, LLC

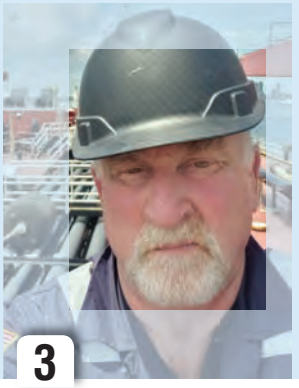
Learn more at amequity.com/safety-awards

AEU THE AMERICAN EQUITY® UNDERWRITERS, INC.

Contributors


1


2

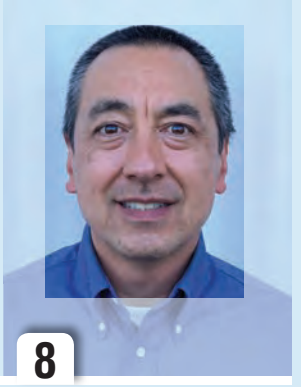

3


4


5


6


7


8

1 Tom Ewing
is a freelance writer specializing in marine, energy and environmental issues. He contributes regularly to this magazine.

2 Jim Kearns
of Jones Walker LLP is special counsel in the firm's maritime practice group, where he focuses on maritime transactions. He sits on the Board of Directors for Inland Rivers, Ports, and Terminals Inc.

3 Robert Kunkel,
president of Alternative Marine Technologies and First Harvest Navigation, served as the Federal Chairman of the Short Sea Shipping Cooperative Program under the DOT's MARAD from 2003 until 2008. He is a past VP of the Connecticut Maritime Association and a contributing writer for *Marine News* and **MarineLink.com**.

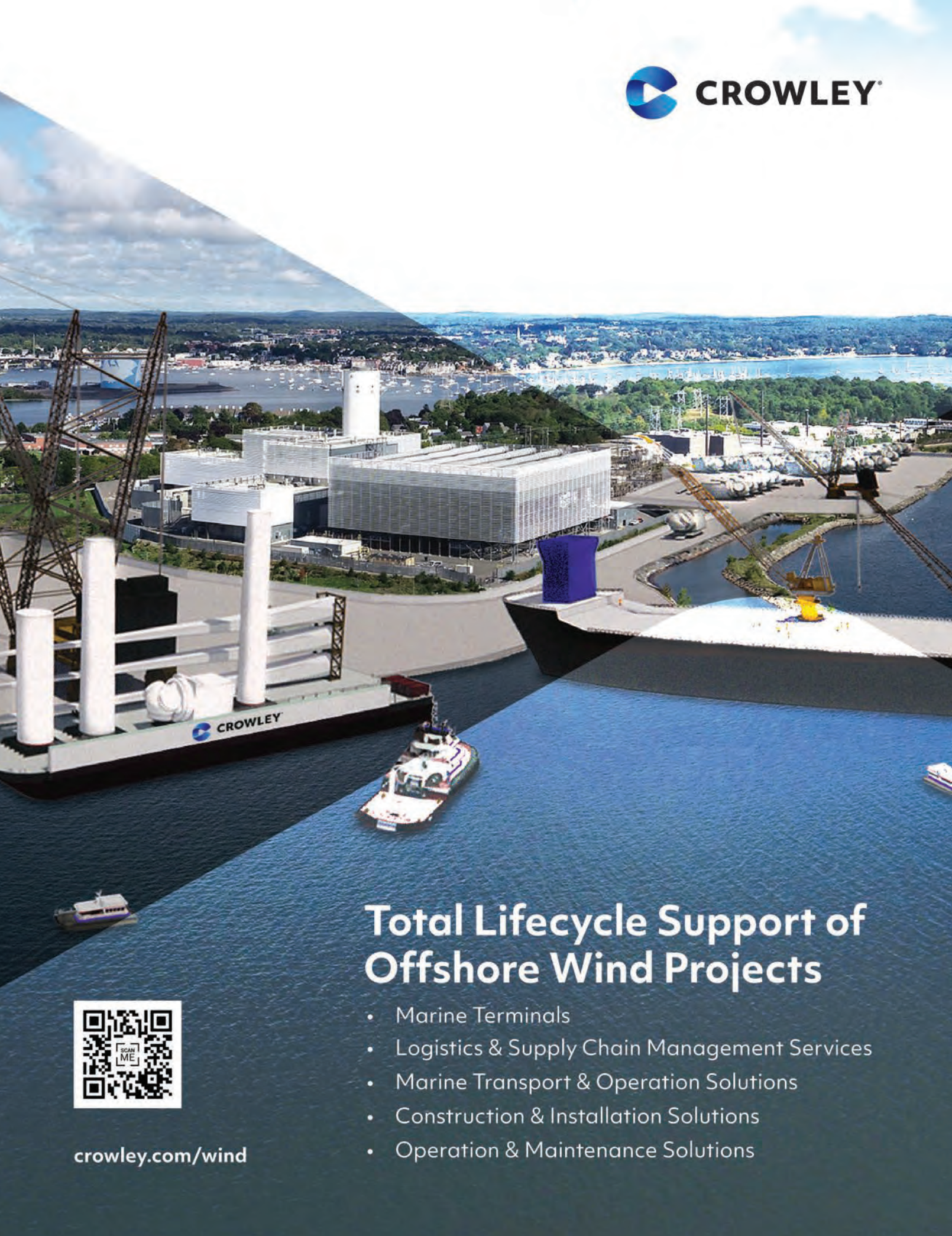
4 Edward Lundquist
is a retired naval officer who writes on maritime and security issues. He is a regular contributor to New Wave Media titles.

5 Jennifer McQuilken
is a freelance writer and communications professional focusing on the maritime industry and energy sector. She also shares her hands-on marine experience by teaching recreational boating safety and boat handling skills.

6 Barry Parker
of bdp1 Consulting Ltd provides strategic and tactical support, including analytics and communications, to businesses across the maritime spectrum. He is a freelance writer and regular contributor to this magazine.

7 Jeff Vogel
is a partner in Cozen O'Connor's transportation & trade group. He focuses his practice on strategic and operational matters affecting the United States maritime industry and on government contracts across all industries.

8 Del Williams
is a technical writer based in Torrance, California.


CROWLEY
CROWLEY
Total Lifecycle Support of Offshore Wind Projects
• Marine Terminals
• Logistics & Supply Chain Management Services
• Marine Transport & Operation Solutions
• Construction & Installation Solutions
• Operation & Maintenance Solutions
SCAN ME
crowley.com/wind

By the Numbers

MARAD Small Shipyard Grants

The U.S. Department of Transportation's Maritime Administration (MARAD) in May announced $20.8 million in grant awards to 27 small shipyards in 20 states through the Small Shipyard Grant Program, which aims to help shipyards modernize, increase productivity and expand local job opportunities.

Since 2008, MARAD's Small Shipyard Grant Program has awarded $303 million to nearly 350 shipyards in 32 states and territories throughout the U.S.

"As shipbuilding technologies continue to advance, Small Shipyard Grants help America's shipyards acquire the equipment they need to compete, thrive and expand America's maritime industry," said Maritime Administrator Ann Phillips. "These grants are also economic boosts to the communities in which shipyards are located as well as to our industrial supply chain."

"Small shipyards strengthen America's commercial fleet, bolster our economic security, and generate good jobs," said U.S. Transportation Secretary Pete Buttigieg. "We are proud to support these shipyards reinforce their vital role in the U.S. maritime sector."

Below is a complete list of shipyard grant recipients in Fiscal Year 2023:

ACBL Transportation Services, Inc., of Jeffersonville, Ind., will receive $1 million to support the purchase of a 200- by 70-foot floating drydock for vessel repair, barge fleeting and cleaning operations.

Alabama Shipyard, LLC, of Mobile, Ala., will receive $718,442 to support the purchase of air compressor systems and fire suppression pumps.

All American Marine, Inc., of Bellingham, Wash., will receive $916,166 to purchase CNC dual head router and CNC press brake systems.

Bayonne Drydock & Repair Corp., of Bayonne, N.J., will receive $730,477 to purchase ultra-high-pressure hydro blasting equipment and telehandlers.

Bay Ship & Yacht Co., of Alameda, Calif., will receive $830,380 to support the purchase of a 165-ton Grove GRT 9165 crane with a 205-foot boom.

Driscoll, Inc. dba Driscoll Boat Works, LLC, of San Diego, Calif. will receive $1 million to purchase a 150-ton marine travelift.

Everett Ship Repair, LLC., of Everett, Wash., will receive $1,168,613 to support the acquisition of a 140-ton

Everett Ship Repair

telescopic crawler crane.

Fincantieri Marine Repair, LLC, of Jacksonville, Fla., will receive $874,079 to support the purchase of a water blast and wastewater collection and treatment system.

Heartland Fabrication, LLC, of Brownsville, Pa., will receive $660,783 to support the purchase and installation of new overhead 25-ton electric bridge cranes and rigging.

Highmark Marine Fabrication, LLC, of Kodiak, Alaska, will receive $969,191 to support the purchase of a 120-ton rough terrain crane.

Hughes Bros., of Brooklyn, N.Y., will receive $1 million in funding to purchase a 160- by 86-foot floating drydock.

J Goodison Company, of North Kingstown, R.I., will receive $704,206 to purchase a 176-ton hydraulic self-propelled vessel transporter.

Main Industries, Inc., of North Charleston, S.C., will receive $527,173 to support the purchase of two HydraBlast Pumps and associated equipment.

Marine Group Boat Works, LLC, of Chula Vista, Calif., will receive $1,142,447 to support the purchase of an 820-ton variable width marine travelift.

Mike's, Inc., of South Roxana, Ill. on the upper Mississippi River, will receive $653,422 to support the purchase of a 30-ton rough terrain crane, telehandler, rack welder and tig stick arc reach.

Mystic Seaport Museum, Inc., of Mystic, Conn., will receive $214,452 to support the purchase of a wood-mizer wide slab industrial sawmill, and two hybrid articulating boom lifts.

Norseman Shipbuilding and Boatyard, LLC., of Miami, Fla., will receive $939,274 to purchase a 150-ton marine travelift.

North Carolina Department of Transportation Ferry Division, of Havelock, N.C., will receive $86,649 to train and certify employees in three required disciplines to enhance productivity in vessel repairs.

The Portland Company, of Portland, Maine, will receive $739,302 to support the purchase of a 60-ton vessel trailer, tractor/loader and support for an indoor ventilation project.

Senesco Marine, LLC, of North Kingstown, R.I., will receive $738,289 to support the purchase and installation of a one-sided sub arc welding system that consists of three integrated digital systems to load, fit, and weld multi-plate panels; upgraded network servers and software; an All-Terrain Lift with variable reach; and a Tier 4 compressor.

Southwest Shipyard, LP., of Channelview, Texas, on the Mississippi River, will receive $1.2 million for blasting and painting equipment upgrades.

Sterling Shipyard LLC, of Port Neches, Texas, on the Mississippi River will receive $1 million in funding to purchase a 120x80 floating drydock to further expand their orderbook capacities.

Sunflower Enterprises, Inc., of Dubuque, Iowa, will receive $599,840 to support the purchase of a 100-ton marine travelift.

Superior Marine Ways, Inc., of South Point, Ohio, located on the Ohio River, will receive $838,221 to support the purchase of a CNC brake and plasma table.

The Thames Shipyard & Repair Company, Inc., of New London, Conn., will receive $309,853 to purchase water-jet surface preparation equipment.

United States Marine, Inc., of Gulfport, Miss. will receive $238,741 to support the purchase of two Eastman CNC tables.

Verret Shipyard, Inc., of Plaquemine, La., will receive $1 million to purchase a 120- by 64-foot floating drydock.

Mike Complita

Principal in Charge and VP Strategic Expansion, Elliott Bay Design Group

Mike Complita *is going on 30 years in the maritime industry. Complita started work at Elliott Bay Design Group (EBDG) as an intern while attending the University of Washington in his hometown, Seattle. "And since that time, I've served in pretty much every role, from a technical and project management standpoint, all the way up to principal of our organization," he said. Today, as Principal and VP of Strategic Expansion, Complita works alongside EBDG's other principals to help guide the firm's project managers, advance new areas of business and serve as the outward facing representative for the organization. This month, Complita reflects on highlights of his career and weighs in on advances in vessel design and technologies as well as the challenges and opportunities that come with these developments.*

By Eric Haun

What inspired you to get into naval architecture, and what do you enjoy most about the field?

I knew from a pretty young age that I wanted to be an engineer. And even though I grew up in Seattle around boats, it never occurred to me that people design boats. When I was at the University of Washington, there was an optional course in naval architecture taught by a wonderful professor named Bruce Adee. This is what really inspired me to pursue naval architecture and understand the great opportunities in the field. Adee actually introduced me to Elliott Bay Design Group and a few other firms. I was hired as an intern at Elliott Bay and carried on from there.

There are a lot of things in my career that I have thoroughly enjoyed over the years. At a high level, the opportunity and the ever-changing industry dynamics have always been exciting to me. There's always something new to pursue, experiment with and work on, like updated or new regulations, opportunities or market segments that captivate and capture our interest. Right now, I'm really intrigued by alternative fuels and alternative energy options. That is an area of our organization that I've taking a leadership role in. Our company is working hard toward a leadership role in the industry overall, in support of our customers.

What's new from Elliott Bay? Can you share updates or details about some noteworthy projects that you're working on? I know you have a lot going on.

A big part of our backlog for the last few years has been working with customers to advance designs for electric and hybrid propulsion ferries. There are a number of ferry projects that will be advancing here in the coming months—some pretty substantial ones. One project is we're working with Washington State Ferries to get ready to bid in their new format and new form of bidding for their hybrid electric vessels.

In addition to the Hydrogen One towboat newbuild project with Maritime Partners, we're working with a number of different tug operators on modifications to existing vessels, to make them more environmentally friendly.

We are starting to see a lot of interest from ports around the United States for our barge-based alternative to shore power. We're in discussions with a number of those ports, regulatory agencies, and MARAD about what that might look like.

What are some possible applications or areas where this barge-based power solution would be a good fit?

The design we've developed is a bit like a Lego kit, with two options to choose from, or a combination of the two. One option is a higher capacity AC electrical system up to 12 megawatts, to power large vessels, either at berth or at anchor, without needing the port to install conventional shore power from the power grid. The barge would pull alongside the vessel requiring power and plug into it rather than utilizing shore power at the dock. And that would run off of low emission alternative fuels.

The second option uses the same platform and a different type of technology to fast charge harbor craft like tugs, crew boats, pilot boats, or dredge tenders that would benefit from not having to come all the way back to the terminal or port where they berth to plug in. They won't need a dedicated berth with that charging capacity. Using the power barge, they can stay in the field and repower between jobs. In that feature, they can pull up to this floating platform, staged out in the field of operation, and in 20 minutes can put a 20 to 30% charge into their battery system very, very quickly.

Are there other trends and advancements in naval architecture that you find particularly interesting or exciting?

Certainly. Wind is a huge new field that everyone is talking about. While that touches on alternative fuels, it also touches on hull form and other things for optimization for the environment. Interestingly in wind, we've got the East Coast, Gulf Coast, and West Coast which all have very different environments. There's a lot of conversation around what types of vessels and what types of hull forms are appropriate for each location.

We're continuing to see a lot of interest from universities and other institutions in supporting wave energy studies and other ways and means to harness the energy of the sea and convert that into usable power. There are a lot of different grant opportunities and things that we're being asked to support on that front.

We are working with a customer, Nautilus Data Technology, who has a floating data project installed in the port of Stockton in California. It's an old barge that has been updated and reused with a data center built on it. Now, we're going to be doing a series of new construction data barges that will be positioned around the world. It's very unique and outside the box.

We are also gaining a lot of experience in advanced weld procedures, and we've been able to save our clients a tremendous amount of money in helping them find a simple path to what has traditionally been a very complex welding procedure problem. We've been able to find ways to support weld projects with different strategies, that allows clients to take a weld process on some of these military crafts, for example, that costs a million dollars to do, and scale it back to something that costs them just a few thousand dollars to do.

What sort of challenges or concerns are you facing, and what's your approach to dealing with them?

It's a blessing and a challenge, but the industry is getting very busy for a wide range of reasons—all the different project types that we discussed and many more. And of course, we've heard for a long time about labor shortages within the maritime industry. Finding and having access to skilled and talented workers is going to be a growing problem, along with most industries, in the future. That's a real challenge.

I think another challenge that we see, and again, it's a blessing and a challenge at the same time, we're at the early stages of artificial intelligence. We have read a lot about how to properly integrate AI into engineering and the work we do. But then also, ensure that it doesn't override human common sense and human knowledge. It's not that we're afraid of it. We're just being careful not to go too far into relying on such new technology and letting it make decisions for us. We need to validate AI through human knowledge and experience.

There's a lot of talk in the world about diversity, equity and inclusion, and there's starting to be a lot of talk about

Elliott Bay Design Group designed Maritime Partners' Hydrogen One, a first-of-its-kind towboat that will run on emissions-reducing methanol-to-hydrogen generator technology—without diesel propulsion.

Elliott Bay Design Group

social justice. We're seeing a lot of DEI expectations enter into contracts with our clients. At EBDG, we are committed to bringing justice, diversity, equity and inclusion to our work while delivering on our commitments in a truthful and meaningful way that meets the clients' expectations.

Social justice is an interesting one because it helps us think outside the box or think of the bigger picture, and step back and say, "Hey, for the longest time, boats have been designed around strong men that can easily turn valves and haul heavy lines." As the world advances and the maritime workforce diversifies, it is important that we design vessels and configure equipment for a broader range of abilities. Can we use automation? Can we use electronics? Can we use other things? Can we reposition things in ways that make it easier and safer to access?

And I think that that's really important because it will help attract more people to the workforce and give our clients much broader access to workers. So how do we rethink what we design and do to help our customers be able to hire and attract more people and be more effective in their jobs?

Can you discuss the impact of regulations and standards on naval architecture and on the industry as a whole? What trends or shifts have you been seeing lately, if any? As the industry continues to push forward, especially with all these new technologies that we've discussed, are regulations keeping up?

That's a great question. I'm glad you asked it, because it ties into the challenges and the opportunities aspect. Technology, as we know, is evolving very quickly to meet decarbonization goals. New propulsion technologies aren't just engines and alternative fuels. They're also ways of making the

propulsion technology, the propellers more efficient and coatings and everything that goes along with that.

There is a challenge to keep up with the rapid pace of change but also an opportunity. The biggest challenge in that is helping regulatory, and especially the U.S. Coast Guard, keep up with that change.

The Coast Guard has limited resources, both funding and personnel. They have been exceptional in working with us on our new and alternative projects of every kind. But they have a job to do and a mission, and they can't just say, "Oh, that sounds cool, let's give it a go and try it." We have to prove to them that the new technology and systems are still safe and still appropriate. That they are reliable in a variety of sea states, environment and working conditions.

How do we help them become comfortable with and understand these new technologies, and equally as important, how do we help them get there quickly to support the timeline that commerce needs to introduce these ideas and meet IMO's goals and meet all of the other goals and aspirations of the different ports and the different world organizations?

Elliott Bay Design Group

Over the course of your career, as you look back, is there a project that sticks out to you as being most memorable or interesting?

That's a hard question for me because I've been doing this for so long. I can think back to each phase of my career and think of some really interesting and cool projects that were really awesome at the time and I reflect on fondly, and they're all very different.

I am especially proud of the work that we have done with Alaska on developing, designing, and building five oil spill recovery barges. Gunderson built four, and one was built by Bollinger in the Gulf Coast. They're some of the largest in the world, and they are the only purpose-built, dedicated ABS-certified spill recovery barges in operation, or actually ever in the history of the United States.

They're giant barges with a very dedicated purpose. And even though it's a basic barge hull, it was very interesting to work through all of the logistics and operational requirements for making the barges actually go and collect oil out of the water and avert or mitigate an environmental disaster. Which is very opposite of the work I've done in my career, which I'm also very fond of, while designing double skin oil carriers. It was neat to take all that knowledge I've gained over 10, 15 years of developing those designs, and then rethink all of that to say, "How do we go the opposite direction? How do we take oil out of the water and manage in?"

Is there anything else that you'd like to add?

One message I really want to keep presenting to our industry is that Elliott Bay Design Group is working hard to be a leader in the realm of decarbonization and emissions reduction.

We are working to stay current on all of the latest technologies and different options—battery, alternative fuels, all of it! We are not a one trick pony in any way with regard to any particular technology or vessel type. That will be a primary focus of our organization going forward, to be an industry advocate and advisor for our industry as a whole. We want to stay independent and not dedicated to any one technology. We want to help our customers pick the right options and technologies and right vendors for their particular need.

Elliott Bay Design Group

Column

Washington Watch

NSMV: The Model of Future of Government Shipbuilding

By Jeff R. Vogel, Member, Cozen O'Connor

At the time of publication, the first National Security Multi-Mission Vessel (NSMV), the Empire State VII, is steadily advancing towards its final delivery to the Maritime Administration (MARAD) and SUNY Maritime College. Let's be clear—this is a huge win, not only for MARAD, its vessel construction manager TOTE Services, the shipbuilder Philly Shipyard, and SUNY Maritime, but for the future of government shipbuilding.

To put this milestone in its appropriate context, it is worth reviewing how we got here. The NSMV program has a long history, transcending Presidential administrations and Congressional leaders. In 2015, MARAD engaged with the U.S. Department of Transportation's Volpe Center to make the business case for the recapitalization of the state maritime academy training fleet. The results of the study indicated that if the government failed to take action by 2025, three of the existing training vessels would be inoperable. Volpe's Principal Technical Advisor for Transportation Logistics and Security summarized the critical importance of finding a solution, stating, "Without the state maritime academy training ships, there would be a long-term negative impact on national security, reducing the number of credentialed mariners available to operate U.S. vessels during war, national emergencies, and for domestic and international commerce."

Philly Shipyard

That same year, MARAD began work with Herbert Engineering to develop a design for what would eventually become the NSMV. The demands on the design would be significant. In addition to have to physically fit in the berths available at the state maritime academies, and serve as a state-of-the-art training platform for up to 600 cadets at sea, the vessel design would also have to accommodate use as a humanitarian aid and disaster relief (HA/DR) platform. State maritime academy vessels being used to support HA/DR missions was, of course, not a new concept. For example, in 2012, the TS Kennedy from the Massachusetts Maritime Academy and the TS Empire State VI from SUNY Maritime College were used to house disaster relief workers during the Hurricane Sandy clean-up effort. The difference, of course, is that the NSMV was designed to specifically support HA/DR operations, incorporating a roll-on/roll-off side ramp, container space, onboard cargo handling equipment, a helipad and berthing for up to a 1,000 people.

The result was a mature design, which together with the business case from Volpe, allowed MARAD to receive Congressional funding to begin the NSMV program in earnest. However, Congress saw the value of partnering with private industry to efficiently construct these next

generation dual-purpose vessels. Accordingly, the National Defense Authorization Act for Fiscal Year 2017, required "an entity other than the Maritime Administration to contract for the construction of" the NSMVs. The stated Congressional goal was to "leverage the ship construction expertise of… a commercial operator when contracting for the construction of the vessel." This act should be viewed as a moment of divine political inspiration.

This Congressional direction led to a MARAD contract award to TOTE Services in May 2019, leveraging their deep experience in commercial vessel construction. In turn, TOTE Services awarded the initial vessel construction contract in April 2020 to Philly Shipyard. The timing is notable, as it corresponds to the month when most States issued disaster declarations in response to startling rises in COVID-19 infections. Notwithstanding these challenges, and working with government-granted exceptions to stay-at-home orders, TOTE Services and Philly Shipyard were able to push forward with the final design of the NSMV, beginning fabrication of NSMV I in December 2020. Keel laying subsequently occurred in December 2021. Again, the timing is notable as TOTE Services and Philly Shipyard were faced with using commercial expertise to overcome supply challenges that plagued the shipbuilding industry. The ultimate result is that, notwithstanding COVID-19 or unprecedented supply chain challenges, the commercial sector in partnership with MARAD is delivering a first-to-class mariner training and HA/DR support vessel in just over two-and-a-half years from when production began. An astonishing result in which the maritime industry and MARAD should take tremendous pride.

To any legislator or executive branch leader involved in government shipbuilding the message should be clear—reliance on the commercial sector through the vessel construction manager model simply works. In contrast to this success, in April 2022, the Government Accountability Office (GAO) released a scathing review of the Navy's shipbuilding program finding that "the lead ships for six Navy programs experienced delays in providing the ships to the fleet, ranging from 6 months to 6 years, and cost growth as high as 154 percent." In addition, the GAO "found that the Navy regularly accepts delivery of incomplete ships with significant uncorrected deficiencies. Issues with the quality and readiness of delivered ships can lead to longer-term problems." The GAO report concludes, "Collectively, these results have raised questions about the Navy's ability to effectively oversee shipbuilder performance throughout the construction of new ships."

Accordingly, when compared to traditional government shipbuilding, the efficiency and effectiveness of partnering with commercial industry under a vessel construction manager model is indisputable. The key now is for lawmakers in D.C. to expand this successful model, with the clear next target being the Ready Reserve Force (RRF). Age has finally caught up with the RRF, resulting in only forty percent (40%) of RRF vessels being available when called upon during a no-notice turbo activation in September 2019. The condition of these national assets creates a clear national security vulnerability, potential leaving warfighters without critical sea lines of communication. While MARAD has begun the recapitalization effort through its vessel acquisition manager (another successful government-industry partnership) new vessel construction remains a key aspect of the long-term RRF recapitalization effort. However, what is abundantly clear is that relying on traditional government shipbuilding processes will not be sufficient to meet the government's time-sensitive sealift needs. However, thanks to the NSMV program, there is a proven process that the government can rely upon to address these challenges. It is now up to Congress to seize upon the opportunity and to appropriate funding to address this critical national security need, through the use of a vessel construction manger model.

Column
Workforce

Labor Shortages, Climate Change & Technology: They're All Related

By Robert Kunkel, President, Alternative Marine Technologies

Many problems in our "New World"

can be solved more quickly than ever due to the speed at which information now travels. Gone are the countless long days of research, because often our questions can be answered instantaneously at a computer terminal or on a handheld mobile device. Traditional investment, research, science and industry have all attempted to reconfigure their business practices to accept that information speed. Unfortunately, government regulation and bureaucracy have not, and as a result, we continue to allow certain problems of the "New World" to be pushed down the road before long-term decisions are made.

With those delays, the labor markets across many, if not all, markets have changed. "Help wanted" signs hang in every storefront, office building and government agency. In no uncertain terms, the maritime industry has been dealing with labor problems, and none of this is news to our industry. The mariner shortage has been discussed at length for years, and it is becoming increasingly difficult to crew not only U.S. flag commercial vessels, but foreign registered ships as well. The labor shortage does not only affect crew labor; it has affected the labor required to fulfill our shipyard production, service and repair companies,

© Pajaros Volando / Adobe Stock

agencies and shoreside office staff.

We have discussed how to solve climate change for the past 30 years. IMO has waffled on standards for emission and carbon reduction that will look at another 30 years to 2050. We can all agree that the crew labor shortages have been discussed for over 10 years, if not more. The relationship with all of these issues is time and the generational effect of problem solving. Our youth expect problems to be solved immediately, just as quickly and easily as they receive their information, selfies and text messages. In my opinion, it's time to put them to work and ask them to help the aging generation reform our traditional practices.

The influence of Gens X, Y and Z has raised many discussions of diversity, inclusion, workplace practices and the cost of higher education. The journey from high school to higher education to realize successful careers for many Black and Latino students along with those from all low-income backgrounds is often anything but successful. If we are looking for growth in the maritime industry, we need to start at the high school level or face losing the skillsets we require to succeed. There is an abundance of solid career opportunities that may require training and certifications but do not require a trip to any university.

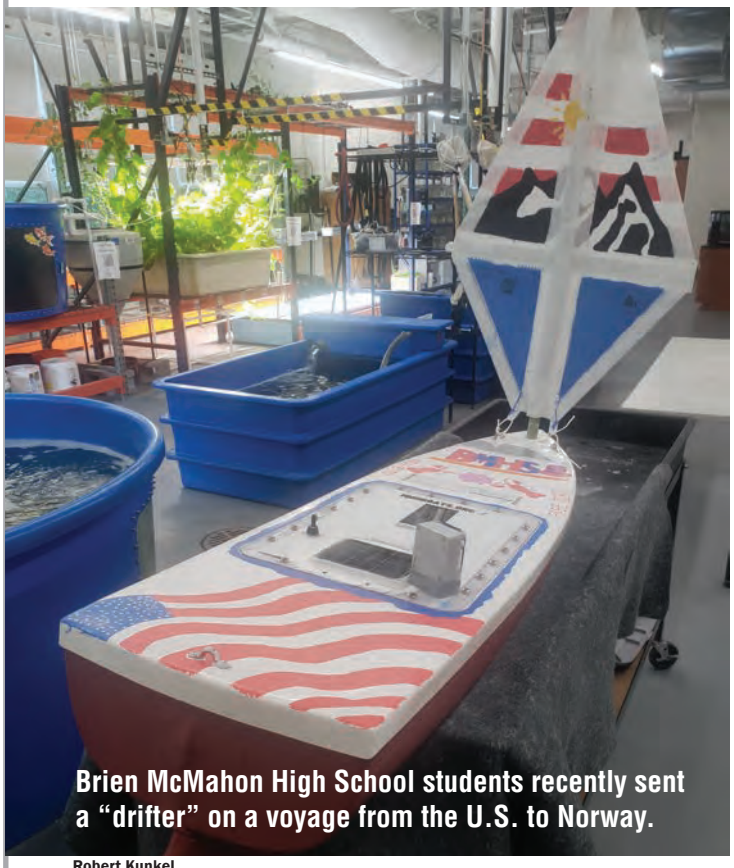
The diversity issue is not new to shipping. We have historically looked to underdeveloped and third world nations to provide our deckhands, oilers, welders and unlicensed positions. Many rose through the hawsepipe to achieve officer status and management positions ashore without degrees or higher education. The science and

Column
Workforce

technological changes we are facing with energy, emissions and climate change will demand a new level of training, certifications and maintenance demands for all of these skill sets. The International Chamber of Shipping (ICS) claims we are short 90,000 seafarers worldwide. Our current Administration claims it will create tens of thousands of new jobs tied to U.S. offshore wind alone. How do we fill those positions?

Within our domestic shipping, coastal and offshore industries, the issue now extends beyond the repeated claim of national security. We now seek industrial security.

Education in the United States is also changing, and if you take an interest as a business owner you will hear the word "pathways" in many of the discussions. New England high schools have long recognized the value of developing pathways that meet the needs and interests of their students and surrounding industries. My company Alternative Marine Technologies (Amtech) has taken an interest in assisting the Brian McMahon High School Marine Science Academy in Norwalk, Conn. to learn how marine pathways can solve the problem. Shipping and shipbuilding have history in New England. History needs to repeat itself.



Brien McMahon High School students recently sent a "drifter" on a voyage from the U.S. to Norway.

Robert Kunkel

The Marine Science Pathway at Brien McMahon High School is a field-based, four-year program offering students a hands-on experience in all aspects of marine science. The initial program is locally centric in Norwalk, Conn., where there is a large recreational boating community and a marine biology influence from The Maritime Aquarium and local oyster farming. Areas of science, aquaculture and mechanics can present career opportunities within the students' hometown. We need to pique an interest beyond that local opportunity.

Various technologies, college, career opportunities and experiences through internships and apprenticeships are included in the program. Amtech has worked with two interns to date, one who continued his path through the Navy nuclear program, and another as she entered Annapolis. We believe the pathway needs to expand into commercial shipping careers at sea, supporting not only the surrounding maritime academies, but also careers that do not require higher education to go directly to work. As a result, we are reaching out to industry to help us support the high school programs, grow the programs and provide sponsorship support.

We met with Eva Bartush, Marine Science Academy Coordinator and Stephanie Tom, IBCP, or International Baccalaureate Career Pathway Coordinator, to discuss their "miniboats" program. On May 31, 2022, the students built and launched a solar powered "drifter" hull to track a voyage across the Atlantic Ocean. Students in the program designed and built the boat, and then tracked it by satellite. The project allowed them to learn about ocean currents, weather, hull integrity and GPS technology. The first drifter launched off the U.S. East Coast completed an autonomous voyage and was eventually safely collected by a second group of students in Norway. The Norwegian students continued the voyage into the Norwegian Fiords and farther North.

What was our initial take on the project? This group of students not only completed a successful autonomous voyage but also met the IMO MEPC zero emissions goals during that voyage. They get it, and they are not waiting 30 years to make changes to their world.

We have no less than four maritime academies located in the Tri-State/New England area stretching from New York

to Maine. The U.S. East Coast is also the launching point for developing the country's offshore wind industry. More importantly, the federal government just invested nearly $2 billion in the construction of five NSMV training ships in Philadelphia. The program to replace aging academy training vessels has been a discussion for as many years as we have discussed global warming. The U.S. Maritime Administration (MARAD) needs to develop a more inclusive program using these assets outside of the sea time for academy license requirements. The platforms should be made available to train returning veterans, high school marine science programs and union school applicants to help solve the labor shortage and provide clear pathways to seagoing careers. A path that includes master to able-bodied seaman, crew transfer vessel (CTV) deckhand to wind farm maintenance technician and QMED to chief engineer.

Rotate the NSMVs through our U.S. ports, position them offshore to attend and observe offshore wind farm construction and use them to conduct near coastal ocean research and aquaculture. These ships can be our first effort to create change and market our industry to next generations—generations that will use alternative fuels to help solve climate change and understand the importance of the world's oceans and the marine industries that need their involvement.

Pick up your mobile device and worked towarf piquing their interest quickly before these generations decide their future only includes a trip to the moon and Mars.

DAVID CLARK COMPANY:

An American Success Story

David Clark Company is best known within the marine market for its wireless and digital headset workboat crew communication systems – the Series 9900 Wireless Marine Headset System and the Series 9100 Digital Marine Headset System. The company has over 20 years of experience designing and manufacturing boat crew communication solutions for a variety of workboats, e.g., patrol boats, fire/rescue craft, and offshore service vessels.

All images: David Clark Company

But you may not know that David Clark Company started out as a knitting factory for making men's and women's specialty garments and evolved into a leading provider of critical communication solutions for high-noise environments and leading-edge aerospace crew protective equipment. Here's how it happened.

So, who was David Clark?

How does a small garment knitting company in Worcester, Mass., end up becoming an iconic brand and indelible part of aviation and aerospace history? The answer is largely due to one man. A man who left school to go to work at the age of fifteen. A man who earned no diplomas after grammar school. A man who, unlike some titans of business today, shunned the spotlight and desired to stand in the shadow of his accomplishments, preferring to bestow credit upon those that "did the real work." That man? David Myron Clark.

David Clark Company was incorporated in Massachusetts in 1935 after developing a new concept of knitting two-way stretch fabric for men's and women's specialty undergarments. The knitted blanks were sold to corset manufacturers for sewing, finishing and resale. Despite being short of cash and having the top of its building blown off by a hurricane in 1938, the company persevered. In time, a total of six patents for knitting were applied for and granted. In 1939, David Clark Company developed and patented a unique supporting undergarment for men

called "The Straightaway" (essentially a compression garment for men) which sold in stores in New York and New England, and via direct mail.

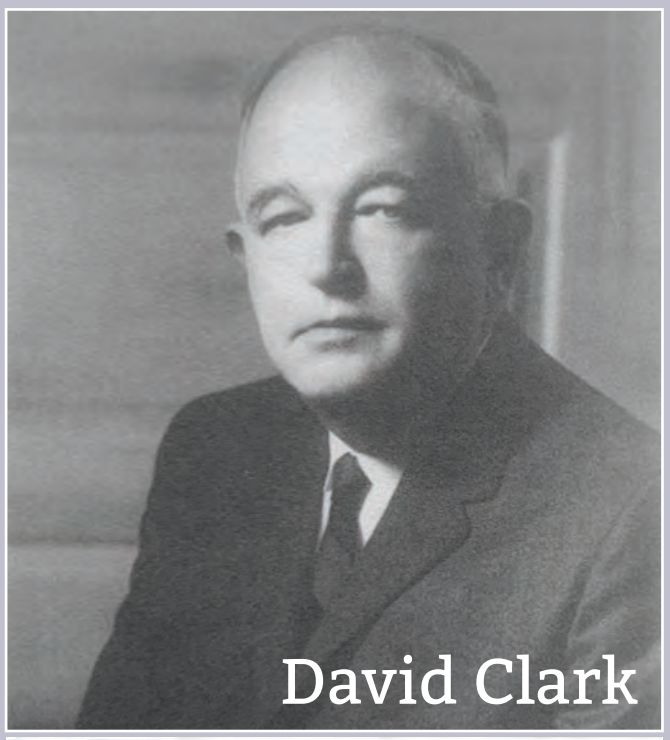
"G"-forces and the partial pressure suit

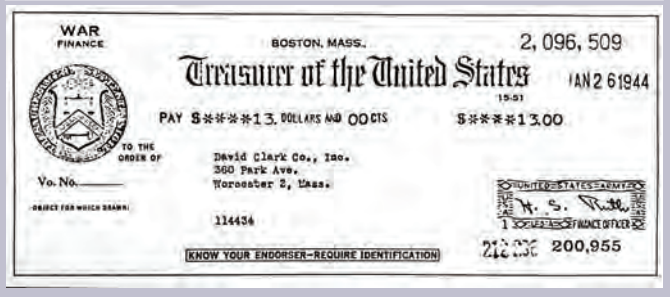
With America's involvement in World War II seeming inevitable, David Clark, working through business associates in Washington, D.C., approached the War department to consider prototype garments which he had recently developed to address "the dreaded blackout", or G-induced loss of consciousness among fighter pilots. It was through his contacts at the War Department that he was introduced to E.J. Baldes, head of the department of Biophysics at the Mayo Clinic, in November of 1941. The two men would become lifelong friends. David Clark recalls in his memoir, The Development of the Partial Pressure Suit, "We each had similar and great interests in aviation; I'd not worked at it at all, but he had worked with Drs. Boothby, Lovelace and Bulbullian – all at the forefront of aviation medical research – in the development of improved methods for supplying pilots with oxygen to breathe so that they might fly at higher altitudes. I presumed that I might be able to help develop some sort of protection from the 'Dreaded Blackout' experienced by pilots of high-performance aircraft when conducting high speed maneuvers in flight. I believed that I should offer my services and facilities to the government."

David Clark rapidly moved his company into war mode, adding sewing machines, and began making tent parts, jungle hammocks with insect netting and roofs, as well as fragmentation bomb parachutes, on prime contracts. His passion, however, was developing the "Anti-Blackout" (ultimately referred to as a "G"- Suit). With the help of the Department of Biophysics at the Mayo Clinic, the company fabricated 22 progressively improved designs.

Initially, the military was skeptical. Again, from his memoir, Clark recalled, "I wrote to the Commanding Officer at Wright Field [now Wright-Patterson Air Force Base] in Dayton, Ohio, and received a classic reply, 'There is no existing data indicating that apparatus such as you describe would be helpful.' I was to hear that many times, with only slight variations in the next few years."

Undeterred, David Clark persevered. After experimenting with several suit pressure valve and inflatable bladder designs, the company received its first check from the government on June 2, 1944, for a partial pressure anti-g suit – made out for thirteen dollars! Since then, David Clark Company's contributions and accomplishments read like a Who's Who list of aerospace history:




WAR FINANCE

BOSTON, MASS. 2, 096, 509

Treasurer of the United States JAN 2 61944

PAY $****13. DOLLARS AND 00 CTS $****13.00

TO THE ORDER OF David Clark Co., Inc. 360 Park Ave. Worcester 2, Mass.

Vo. No.

114434

KNOW YOUR ENDORSER—REQUIRE IDENTIFICATION

200,955

- **First Operational Capstan Pressure Suits** developed for X-1 rocket plane test pilots who broke the sound barrier and first explored high-altitude flight.
- **X-15 Full-Pressure Suits** developed for test pilots who flew the X-15 to record speeds and altitudes - Mach 6.70 and 354,200 feet.
- **Gemini Space Suits** developed for each mission's unique requirements, including the G-4C space suit for Ed White's first U.S. space walk.
- **Apollo Block I Suits** utilized to train the initial Apollo astronaut crews and support initial missions.

- **Apollo Communications Carrier** worn by all Apollo astronauts on lunar missions, providing clear and reliable communications with mission control on Earth.
- **Standard Full-Pressure Suits** worn by pilots of various high-altitude aircraft such as the F-4, F-15, XB-70, HL-10, X-24, U-2, AND SR-71 Blackbird.
- **Shuttle Advanced Crew Escape Suits and Launch Entry Suits** worn by space shuttle astronauts.
- **Contingency Hypobaric Astronaut Protective Suit (CHAPS)** and variants such as SALUS for commercial space flight.
- **Orion Crew Survival Suit (OCSS) to support NASA's emerging missions beyond low earth orbit, to the moon and beyond.**

The Red Bull jump

Among the many other accomplishments not listed above, one of the most high-profile was the design and manufacture of the pressure suit worn by skydiver and adventurist Felix Baumgartner for the Red Bull Stratos Program. In October of 2012, Baumgartner jumped from a capsule 128,000 feet above earth (at that time a world record), suspended in space by a balloon. He became the first human being to break the speed of sound outside a vehicle. Baumgartner landed by parachute safely in the New Mexico desert. The David Clark Company suit performed flawlessly.

Perceived by most as a "record breaking stunt" by thrill-seeking adventurists, the effort was actually the culmination of a detailed design, development, test and evaluation (DDT&E) effort to advance the state of the art for aerospace crew protective equipment, vehicles and related escape systems. The jump from such an extreme altitude provided the company with important data and information on the performance capabilities of its suit and occupant—information that has since been used to enhance the design and manufacture of subsequent suits for military pilots and astronauts.

"Our support of the Red Bull Stratos Program was an opportunity for us to showcase our ongoing commitment to enhance the safety and performance of those who work in challenging environments every day, whether they be ex-

treme altitudes, the vacuum of space, or in the realms associated with high-G flight," said Dan Barry, Vice President/ Director of Research & Development at David Clark Company. "Mr. Clark recognized that the unique capabilities and expertise developed by his company represented a true, National asset, the preservation and advancement of which remains a core focus of our operations 88 years later."

Hearing protection headsets

In 1952, David Clark was invited to be a guest on a five-day training cruise on the F.D.R. aircraft carrier (the largest in the Navy fleet at the time) by Dr. Ralph Christy, a navy friend of the then 'Clark Company', who was charged with Pilot and Flight Crew Protection. That invitation and the five days that ensued proved to be a major turning point for the company. David Clark was stunned by the volume of noise on the carrier flight deck with jets taking off and landing. At a decibel rate far exceeding the threshold that can cause permanent hearing damage, Clark observed some men were also subjected to confusion by

the noise. He was later informed that some had been injured and even killed by propellers and jet intakes.

Months later, while visiting the home of David Clark, Dr. Christy proposed that the Clark Company devise protective devices against the noise and the two began sketching out ideas. After a series of prototypes were tested, the 372-2 Hearing Protector received a patent in October 1953. By 1957, the Clark Company's best year up to that time, more than half the profits were derived from over-the-head style hearing protectors, with the USAF joining the US Navy as primary customers.

Aviation headset pioneers

During the early 1970s, David Clark Company began to broaden its focus in an effort provide aviation pilots with headsets that provide, not only hearing protection from engine noise in loud aircraft cockpits, but also the ability to communicate clearly with ATC. This effort resulted in the introduction of one of the first, viable, communication headsets for aviation pilots: the Model 10BB/F.

Today, David Clark Company serves the general aviation, commercial aviation, marine and military markets with the broadest line of fixed wing and rotary wing headsets in the aviation industry, including flagship models DC ONE-X and DC PRO-X2 Series active noise reduction (ANR) headsets and the Model H10-13.4 passive noise-attenuating headset, the longest and best-selling headset in aviation.

Critical communication headset system solutions

By the mid-1980s, the company continued to expand its reach into new markets with the introduction of Wired Headset Communication Systems designed for airline/airport ground support personnel, as well as firefighters and first responders. These systems were designed to provide clear communication and enhance performance, safety, and situational awareness (while still providing hearing protection) for crews working in high-noise environments. Thousands of David Clark wired systems are still being used in these markets today.

The advent of wireless and digital headset systems

Buoyed by the success of its wired headset systems, the David Clark Company forged ahead with the introduction of the Series 9900 Wireless System in 2011. Wireless systems, featuring advanced Digital Enhanced Cordless Telecommunications (DECT) technology, provide users with all the communication advantages of wired systems, while also providing the additional benefit of mobility and freedom of movement, without being tethered to an apparatus or other equipment—a huge benefit for firefighters on the fireground and for ground support personnel during aircraft pushback, deicing and other airport ramp and maintenance applications.

The Series 9100 Digital System, introduced in 2017, affords workboat crews with the advantages of Scalability for a virtually unlimited number of users, Versatility with multi-channel programmability and the ability to seamlessly integrate wireless headsets for a "hybrid" wired/wireless communication solution, and Simplicity for ease of programming and operation. Wired and wireless capability from the same system enhances programming flexibility for a broader range of mission requirements and creates highly adaptable configuration schemes.

A sea change in workboat crew communications

In the early 1990s, David Clark Company took aim at the workboat segment of the Marine market and introduced the Series 9500 wired headset communication system for patrol boats, fire/rescue craft, tug and tow boats, offshore service vessels and other specialized workboats. Having gained over 20 years of experience in the marine market, the company quickly saw the advantages of its Wireless and Digital Headset Systems for workboat crews.

The Series 9900 Wireless and Series 9100 Digital (wired)

systems have both been well received by workboat crews worldwide, featuring rugged reliability, excellent headset comfort, and are built with marine-grade components offering ingress protection, salt/fog corrosion resistance, wide ranging temperature tolerance and superior shock/vibration absorption to stand up to harsh marine environments.

David Clark Company has also formed relationships with several leading boat manufacturers including SAFE Boats International, Zodiac and MetalCraft Marine. As one example, the David Clark Series 9100 hybrid (wired and wireless) system was installed on the Multi-Mission Interceptor (MMI) demo patrol boat from SAFE Boats International. Rob Goley, Coast Guard veteran and now Business Development Director for Federal Programs at SAFE Boats International, had this to say: "Many missions are long, with many hours on the boat. The operators require comfortable equipment when they're underway. The David Clark [Series 9100] system is comfortable, easy to use, reliable, and it works. That's critical for our operators that are out using this equipment."

The future

David Clark Company remains fully committed to maintaining the highest levels of product quality, performance, customer service and support for its aerospace crew protection equipment and critical communication headsets and systems. The David Clark Company story will continue to be characterized by its core values of corporate integrity, ingenuity and innovation—consistent with the vision of its founder, David Myron Clark.

Marine Travelift

NEED A LIFT?

US Shipyards Are Adding Serious Lifting Power

By Eric Haun

BAE Systems

Eric Haun

Shipyards across the U.S. are investing in new equipment to increase lift capacity, opening up the door for more projects and improved efficiency.

Southern California-based Marine Group Boat Works, which performs a mix of yacht, commercial and government vessel repair work, in 2022 repowered its 665-ton Marine Travelift mobile boat hoist—the largest on the West Coast—with a Tier 4 John Deere engine. And earlier this year it was awarded a MARAD Small Shipyard Grant worth more than $1.1 million toward the purchase of an even larger 820-ton variable width Marine Travelift hoist amid an anticipated sharp demand increase for repower and new construction projects to help operators meet stricter harbor craft emissions rules put in place by the California Air Resources Board (CARB).

Each year, Small Shipyard Grants are awarded by the U.S. Department of Transportation's Maritime Administration (MARAD) to help small shipyards modernize, increase productivity and expand local job opportunities. A quick search through the awards given out over recent years reveals that a large portion of the funds are being put toward equipment that will help shipyards boost their lifting power—welcome news for manufacturers of cranes, hoists, lifts and vessel transporters (see this month's By the Numbers on page 8 for a full rundown of the 2023 grants).

One of the companies awarded a Small Shipyard Grant this year is North Kingstown, R.I. shipyard J. Goodison Company, which netted more than $700,000 to support the purchase of a 176-ton hydraulic self-propelled vessel transporter. The new transporter will allow the shipyard to more efficiently serve clients such as the U.S. Navy, National Oceanic and Atmospheric Administration (NOAA), U.S. Coast Guard and the region's commercial fishing fleet, while expanding capacity to serve an increasing number of crew transfer vessels (CTV) that will operate in the region as offshore wind activity picks up.

Stevens Towing has also recently added lifting power to help prepare for a larger work volume, recently adding an 820-metric-ton-capacity Marine Travelift 820CII mobile boat hoist to join its 150-ton hoist already on site at its shipyard on Yonges Island in South Carolina.

"We hope to meet the needs of the dry docking for ship docking tugs in the Southeast, as well as passenger boats," said Johnson Stevens, president at Stevens Towing. "Schedules are tight and customers are struggling to get into bigger yards – which makes it difficult to keep up with the demands of vessel schedules. We hope to shorten the dry dock time frame for them."

In addition, the Stevens Towing Shipyard facility will now be equipped to haul out 60-foot-wide barges, making the yard one a select few in the U.S. with that capability. "Barges are getting wider; this is in response to new technology in cranes preventing excessive list during unloading," Stevens explained. "We are very excited to become a regional destination for that kind of service."

Bayonne Dry Dock & Repair in Bayonne, N.J. has added some serious lifting capacity of its own. The yard's new Cimolai MBH 1280 mobile boat hoist has a lifting capacity of 1,280 tons and is capable of accommodating vessels with breadths up to 50 feet, making it the largest of its kind in the U.S. Northeast and opening up new business opportunities. The hoist expands capacity to allow more vessels—particularly barges, tugs and other workboats—to be serviced in the yard simultaneously.

The yard's president, Mike Cranston, said Bayonne Dry Dock spent $25 million for the project, including the hoist itself, as well as necessary infrastructure improvements for the facility to be able to absorb the weight of the lift and handle more vessels at any given time. Bayonne's newly constructed laydown area has enough space to dry dock up to eight tugs at a time for services ranging from quick fixes and inspections to comprehensive overhauls.

Bayonne Dry Dock & Repair's new mobile boat hoist is the largest of its kind in the U.S. Northeast, unlocking new opportunities for the Bayonne, N.J. repair yard.

Eric Haun

Feature
Shipyard Equipment

Notably, the mobile boat hauler allows workboats to be repaired locally without having to travel out of town, providing immeasurable value to the port and the vessel operators within, as well as local economies and national security, according to Bethann Rooney, director of the Port Authority of New York & New Jersey. "All of the small vessel operators that are absolutely vital to the maritime industry can now be serviced right here in the Port of New York & New Jersey at Bayonne Dry Dock," Rooney said. "Everything from emergency support and law enforcement, fire vessels, ferries, pilot boats, ferries and whatnot."

Marinette, Wis. Shipyard Fincantieri Marinette Marine, has added a state-of-the-art shiplift system from Pearlson Shiplift Corporation. At approximately 500 feet long and 82 feet wide, the shiplift system is capable of handling vessels of nearly 10,000 tons, giving Fincantieri Marinette Marine the capability to launch and retrieve larger vessels in a more controlled and gentle manner—no more side launches. Ships like the Multi-Mission Surface Combatant (MMSC) and Constellation Class Frigates can be outfitted to near completion and tested inside climate-controlled facilities before being launched into the Menominee River.

In April, BAE Systems held a groundbreaking ceremony officially kicking off a $200 million modernization pro-

Stevens Towing recently added an 820-metric-ton-capacity Marine Travelift 820CII mobile boat hoist to join its 150-ton hoist already on site at its shipyard on Yonges Island in South Carolina.

Marine Travelift

gram to upgrade its ship repair facility in Jacksonville, Fla. Like Fincantieri, BAE will also add a Pearlson Shiplift system, forming part of a new land-level repair complex that will boost flexibility and expand the shipyard's docking capacity by 300%.

Located two miles from the Atlantic Ocean, at the intersection of the St. Johns River and the Atlantic Intracoastal Waterway, BAE Systems Jacksonville Ship Repair provides repair, maintenance, overhaul, conversion and marine fabrication services for a wide range of commercial and government vessels, from tugs to warships, serving both domestic and international fleets. The shipyard, which drydocked 15 vessels last year, expects to accommodate even more vessels calling upon the port of Jacksonville in the years ahead, according to Tim Spratto, general manager at Jacksonville Ship Repair. "We anticipate a sustainable workload from the Navy, Coast Guard and other government customers' vessels in the port," Spratto said. "Growth in workload is expected from the commercial ship repair market with the introduction of this new ship repair capacity in Jacksonville."

Central to the yard's new repair complex will be a new shiplift, used for hauling ships out of and back into the water, as well as a self-propelled modular transport system for carrying ships to and from the new land-level facility. The new shiplift complex will increase drydocking capacity from two large-hulled ships to as many as six vessels simultaneously. The facility will be able to accommodate vessels up to 600 feet long, 100 feet wide and displacing up to 10,000 tons. "The

new facility will expand BAE Systems' docking capacity by 300%, all enabled by a modern Pearlson Shiplift system capable of lifting a Ticonderoga-Class Guided Missile Cruiser, Arleigh Burke-Class Guided Missile Destroyer, the new Constellation-Class Guided Missile Frigate or a Panamax commercial vessel, with laydown area ashore to refit and repair multiple vessels at one time," Spratto said.

With on-site construction activities already underway, Spratto said the yard will continue to function at full capacity with two marine railways and a 13,500-ton drydock through much of the construction period until the shiplift and land-level facility are certified and commissioned in 2025.

For Pearlson Shiplift Corporation, a key partner in the BAE Jacksonville project, business has been good. The Miami-based company in early July reported it has secured four contracts within the past nine months, boosting its order backlog to more than $200 million. One of these projects, which is for an undisclosed customer to be announced in the coming months, will be the largest of its kind ever seen in its commercial market, according to Bryan Fraind, chief operating officer at Pearlson Shiplift. Fraind added that the company expects to announce several new projects in 2023 and beyond.

Central to a new repair complex at BAE Systems Jacksonville Ship Repair will be a new shiplift, used for hauling ships out of and back into the water, as well as a self-propelled modular transport system for carrying ships to and from the new land-level facility.

BAE Systems

Marine Group Boat Works

Marine Travelift is now offering variable width options for its lineup of BFMII and C-Series mobile boat hoist machines, allowing shipyards to block vessels closer together to maximize space previously unavailable because of overall width dimensions on a standard fixed width boat hoist. The new option also unlocks the ability to move vessels through narrower doorways or other tight spaces.

"The variable width option provides the ability to handle a wider variety of hulls and without any major infrastructure changes. With the ability to vary the boat hoist width, you can not only lift wide vessels such as catamarans, but narrower mono hulls as well without exceeding recommended sling angles." said Kurt Minten, executive VP at Marine Travelift.

This new option is powered by a hydraulic ram, housed within the telescoping top beam, and is assisted by Marine Travelift's patented all-wheel electronic steering option. These two components are teamed with a control loop system that includes angle sensors, a distance sensor and wheel encoder to keep the machine square and ensure safe expansion and retraction throughout the full range of variability. The extension and retraction functions can occur on either side of the machine for flexibility and maximum maneuverability. It is also designed to handle full load across the entire width spectrum and can stop anywhere within the full range of variability, with or without a vessel in the slings.

Marine Travelift said it already has orders in place for 35-, 50- and 150-metric-ton models, which are all scheduled to be delivered in 2023. The first hoist with the variable width option is a 75BFMII (75 metric ton lifting capacity) delivered to Marine Group Boat Works' San Jose del Cabo location in March. The hoist offers nine feet of width variability and can expand and retract under full load in 60 seconds.

"The variable width machine allows us to utilize otherwise lost space with a traditional boat hoist", said Pete Horner, general manager at the Los Cabos yard. "It's a twofold solution for us as we can continue to grow our business in the same physical footprint and work on more boats at the same time, ultimately limiting customer downtime and maximizing profitability."

SHIPPINGInsight

2023 10-12 OCTOBER

THE DECADE OF COLLABORATION

Hilton Stamford Hotel | Stamford, CT | USA

PARTNER WITH US!

partner@shippinginsight.com

203 - 255 - 4686

www.shippinginsight.com

SHIPPINGInsight

where fleet management meets maritime technology

Edison Chouest Offshore

An event was held to mark the 50% building completion milestone of the SOV ECO Edison at LaShip in Houma, La.

OFFSHORE WIND: US Shipbuilders Answering the Call

By Eric Haun

It's a big deal when a U.S. president visits an American shipyard, and these trips always send a message. When President Obama spoke at HII's Newport News Shipbuilding in 2013, he warned of the consequences of sequestration. President Trump's 2020 speech at Fincantieri Marinette Marine touted a $5.5 billion naval contract that gave a welcome boost to the Wisconsin shipyard and its supply chain partners. Most recently, President Biden traveled to Philadelphia's Philly Shipyard in July to attend a steel cutting ceremony for Great Lakes Dredge & Dock Corporation's new offshore wind rock placement vessel, hyping his administration's clean energy agenda and job creation efforts as the U.S. builds up its offshore wind industry.

Offshore wind, and "clean" energy in general, have been a major focus area for the Biden administration, which early on set a target of 30 gigawatts of offshore wind energy deployed by 2030. This, along with a number of recent initiatives aiming to boost the efforts of offshore wind developers and their supply chains, has provided assurance to an industry that has taken quite a bit of time to get off the ground.

"Since I took office, we've seen more than $16 billion in new offshore wind investments, including 18 offshore wind vessels, 12 manufacturing facilities and 13 ports. Today, we announced the first-ever offshore wind sale in the Gulf of Mexico," Biden said at Philly shipyard on July 20. "Across the Delaware River in Paulsboro, N.J., workers are welding the steel foundation for another large-scale wind project. . . A project off the coast of New York will use a vessel built in the shipyards of Louisiana, Mississippi and Florida and rely on an electrical substation engineered in Kansas and made in Texas. The Inflation Reduction Act offers tax credits for projects using American-made iron, steel—manufactured products so our clean energy future will be made in America. . . All this investment means good-paying jobs here at home."

Certainly, challenges remain, but industry confidence is only heightened as more steel enters the water at projects in the U.S. Northeast. Groundwork for projects off the coast of California continue to advance, and the Department of Interior recently announced the first offshore wind power development rights sale in the Gulf of Mexico will take place at the end of August.

Welcomed by the U.S. maritime industry, including shipyards, is President Biden's firm support of the Jones Act. "There are some content to rely on ships built overseas without American crews to operate them. . . Not on my watch," he said during his recent speech in Philadelphia. "We're strengthening American shipbuilding, supporting good union jobs and bringing offshore wind supply chains back home."

Today, American shipyards have already started to build the fleet of specialized vessels that will support this nation's offshore wind farms for years to come. Ships like the subsea rock installation vessels (SRIV) being built at Philly Shipyard for GLDD and others such as crew transfer vessels (CTV), service operation vessels (SOV), wind turbine installation vessel (WTIV), and countless tugs, barges survey craft and other workboats will help to build, operate and eventually decommission wind farms in U.S. waters.

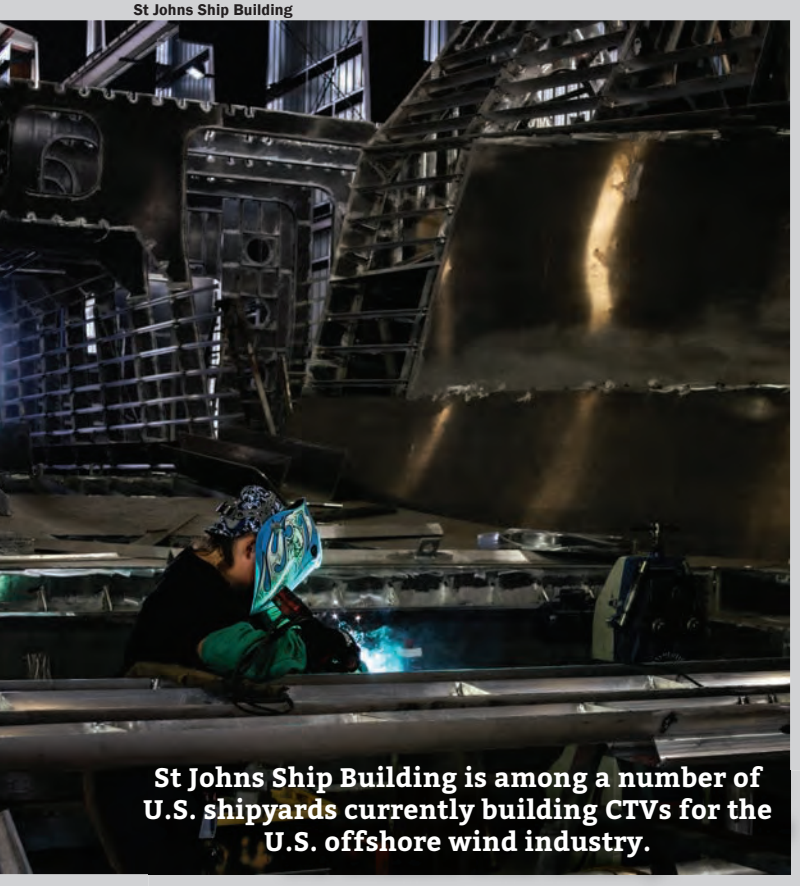
Crew transfer vessels

Among the Jones Act-compliant vessels that will be needed are CTVs—typically aluminum catamarans—used to ferry personnel and light equipment to and from offshore wind farms. To date, three CTVs are operating in support of U.S. offshore wind projects: Atlantic Pioneer and Atlantic Endeavor delivered by Warren, R.I. shipbuilder Blount Boats for Atlantic Wind Transfers (AWT) in 2016 and 2021 respectively, and WindServe Odyssey, built by Senesco Marine in North Kingstown, R.I. for fellow Reinauer Group company WindServe Marine, handed over in 2020. Atlantic Pioneer is on long-term charter to Ørsted supporting operations and maintenance at the Block Island Wind Farm. Ørsted also tapped AWT to provide the Atlantic Endeavour to support the Coastal Virginia Offshore Wind (CVOW) demonstration project. WindServe Odyssey is also on charter for CVOW, but for turbine manufacturer Siemens Gamesa.

The country's fourth CTV, WindServe Genisis, was launched in July by Senesco, which will build two more CTVs—WindServe Journey and WindServe Explorer—for the same customer. WindServe Genisis will initially provide crew transfer support during the construction phase at Ørsted's Southfork Wind project off the coast of Long Island before going on to work at the developer's Revolution Wind project off Rhode Island and Connecticut, and Sunrise Wind off New York.

Blount Boats, which built AWT's existing vessels, is also building four CTVs for American Offshore Services, a joint

St Johns Ship Building



St Johns Ship Building is among a number of U.S. shipyards currently building CTVs for the U.S. offshore wind industry.

venture owned by SEA O.G Offshore and Northern Offshore Services. Two of the CTVs are booked to support construction at the Ørsted Northeast cluster and one will go on charter to Vineyard Wind on the Vineyard Wind 1 wind farm.

In 2022, AWT looked outside of the Northeast to continue building up its fleet, ordering a series of up to six CTVs from St. Johns Ship Building in Palatka, Fla. The first is scheduled to be delivered this year, followed by the second in 2024. St. Johns is also building two CTVs for WINDEA CTV, a joint venture between MidOcean Wind and the Hornblower Group, which has a third CTV on order at Gulf Craft in Franklin, La. Initially, the WINDEA vessels will support GE on turbine commissioning works on Vineyard Wind.

Gladding-Hearn Shipbuilding is known to be building a CTV for Patriot Offshore Maritime Services, which will be chartered for work at Vinyard Wind. The Somerset, Mass. Shipbuilder is also building at CTV for the Mayflower Wind project. Louisiana-based Metal Shark is believed to have firm orders for three CTVs, with options for three additional vessels. Port Angeles, Wash. shipyard Platypus Marine is building a CTV on spec.

Going forward, CTV ordering is expected to accelerate as more offshore wind projects advance to development and

From left to right: Lasse Petterson, CEO of Great Lakes Dredge and Dock; Rep. Mary Gay Scanlon, D-Pa.; President Joe Biden; and Steinar Nerbovik, CEO of Philadelphia Shipyard.

Philly Shipyard

operational stages. Based on the sheer volume of projects in the pipeline, analysts predict a large fleet—potentially several hundred CTVs—by the middle of next decade.

Service operation vessels

SOVs, used during the operation and maintenance (O&M) phases of wind farm projects, serve as an at-sea base of operations to accommodate and transfer technicians, tools and equipment to and from the individual turbines. Whereas smaller aluminum CTVs are used for shorter daytrips, larger SOVs are often made of steel and used for farther, sometimes weeks-long treks offshore. Like CTVs, SOVs must be Jones-Act-compliant. At present, there are three SOVs known to be under construction at U.S. shipyards: ECO Edison and a to-be-named SOV being built for Edison Chouest Offshore (ECO) at its Gulf Coast yards, and an SOV for Crest Wind, a Crowley-ESVAGT joint venture, at Fincantieri Bay Shipbuilding in Sturgeon Bay, Wis.

Scheduled for delivery in 2024, ECO Edison will be chartered by Ørsted at its South Fork, Sunrise, Revolution and Block Island wind farms. ECO's second SOV will be chartered by Equinor for work at the Empire Wind 1&2 projects. Slated to enter service in 2026, the Crest Wind vessel will serve the Dominion Energy CVOW project under long-term charter to Siemens Gamesa.

It's anticipated that many more SOVs will be ordered in the coming years as additional offshore wind projects advance. It is anticipated that a few dozen Jones Act SOVs will be needed by 2035.

It is worth noting also that SOV conversions are also seen as an option in addition to newbuilds. Several existing U.S. vessels from the Gulf of Mexico are in the process of being converted to perform as SOVs. Otto Candies is converting two of its offshore supply vessels (OSV) from the oil and gas market to operate as SOVs for wind projects in waters off the U.S. Northeast coast. Hornbeck Offshore Services recently revealed it has contracted Eastern Shipbuilding Group to convert one of its OSVs to a SOV as well.

Subsea rock installation vessels

At the moment, Philly shipyard is the only U.S. yard building SRIVs, which are used for the transport and strategic placement of rocks on the seafloor as a foundation for offshore wind turbine monopiles. Great Lakes Dredge & Dock's

Acadia is currently under construction and scheduled to enter service by the end of 2024, when it will be used to install monopile scour protection on the Vineyard Wind project. GLDD has also formed a consortium with Van Oord to perform subsea rock installation on the Empire 1 & 2 projects. GLDD has an option to acquire a second SRIV from Philly Shipyard at a later date.

It is worth noting that foreign-flagged vessels can be used to carry scour from a U.S. port and to install the initial layer of scour on the "pristine" seabed, according to recent rulings by U.S. Customs and Border Protection (CBP). However, once the first layer is installed, a coastwise point is created and a Jones Act compliant vessel like GLDD's Acadia must be used for subsequent layers of scour.

Wind turbine installation vessels

WTIVs are most often self-elevating jackups equipped with high-powered cranes for the installation of offshore wind turbines. These are the largest and most complex—and therefore most expensive—vessels required for offshore wind. To date, only one WTIV has been ordered in the United States: Dominion Energy's Charybdis currently under construction at the Keppel AmFELS shipyard in Brownsville, Texas. The vessel, which is scheduled to be delivered in 2024, is booked for the installation of Siemens Gamesa turbines on Dominion's Coastal Virginia commercial project and Ørsted's Sunrise 1 and Revolution Wind farms. In addition, the charter terms allow the vessel to support the construction of Dominion Energy's 2.6-gigawatt CVOW project, which is expected to be completed in 2026.

Because U.S.-built WTIVs come with a significantly higher sticker price, most, if not all, going forward will likely be built overseas and supported by Jones Act tug and barge feeder spreads. For example, Maersk Supply Services and Kirby Corporation have been awarded a contract for the transportation and installation of the wind turbines for Equinor/BP's Empire Wind I and II. Maersk is building installation vessel for the project at SembCorp Marine Singapore for delivery in 2025.

Crest Wind, a joint venture between Crowley and ESVAGT, has selected Fincantieri Bay Shipbuilding to construct a SOV for operations in the U.S. offshore wind sector.

Crest Wind

Charybdis will be the first WTIV ever built in the United States and one of the largest globally. The vessel's main crane will have a boom length of 426 feet and an expected lifting capacity of 2,200 tons.

Dominion Energy

Clean Technology Lasers: A New Tool to Remove Corrosion and Scale

Laser systems quickly remove corrosion and scale from metal surfaces with less preparation and mess than traditional techniques.

By Del Williams

In the maritime industry, corrosion and scale (where rust penetrates a metal surface) can quickly become an issue in an outdoor, salt sea spray laden environment. When sea spray evaporates, it leaves salt behind, leading to saltwater staining and accelerated corrosion.

So, most shipbuilders as well as those responsible for maintenance and repair understand the value of treating metal surfaces to remove corrosion, scale and saltwater staining, which is vital to maintain essential interior and exterior components such as engines, generators, fuel pumps, winches, anchoring chains, latches, door hinges and locks. This is necessary to preserve not only function but also prevent further corrosion and deterioration including possible premature failure.

All images: Laser Photonics

Unfortunately, traditional techniques used for this purpose such as sandblasting and chemical stripping are often messy and require expensive consumables as well as substantial time for preparation and cleanup. Additionally, sandblasting and chemical stripping may not be feasible to clean, maintain or recondition many of the ship's interior and exterior spaces. These methods are also drawing scrutiny from regulators like the EPA and OSHA since they can pose risks to applicators and the environment.

Although manual methods of cleaning and removal are available, such as chipping and using wire brushes and grinders, these are very labor intensive and time consuming.

Today, a more effective alternative is utilizing industrial-grade, precision laser-based systems that can remove corrosion and scale with a high-energy laser beam that leaves the substrate unaffected. The technology can also be used for selective cleaning and even de-painting on access points and service latches when required. Preparation and cleanup time are minimal, and the low-maintenance equipment can last decades.

"Many people are unfamiliar with the use of lasers to pretreat metal surfaces," said Vincent Galiardi, owner of Galiardi Laser Clean, a surface cleaning operator based in St. Charles County, Mo. "When I do a demonstration, at first the people in attendance are skeptical. But after I use the laser to treat a small area, everyone starts talking and getting excited. By the end, when I let them try the equipment, everyone is having a good time and saying how great the laser works."

Given its effectiveness treating metal surfaces, industri-

al laser systems are increasingly being used at shipyards, shipbuilding berths and even aboard ships. Technicians can use mobile handheld units, or if needed the systems can be integrated into automated inline processing lines. Citing advantages in safety and efficiency, Galiardi said laser cleaning is poised to disrupt the surface treatment market across more sectors.

Resolving conventional cleaning limitations

To treat metal surfaces, sandblasting or chemical stripping are traditionally used as industrial cleaning processes.

Sand blasting: Abrasive sandblasting involves forcefully projecting a stream of abrasive particles onto a surface, usually with compressed air or steam. The silica sand used in abrasive blasting typically fractures into fine particles and becomes airborne, which can cause serious or fatal respiratory disease.

When workers inhale crystalline silica, the lung tissue reacts by developing fibrotic nodules and scarring around the trapped silica particles, causing a fibrotic lung condition called silicosis. Estimates indicate that more than 1 million U.S. workers are at risk of developing silicosis and that more than 100,000 of these workers are employed as sandblasters.

In addition, particles are generated during abrasive blasting that further contribute to respiratory problems and other harmful health effects.

"When sand or any other media is used to knock off particles from a substrate, there is always a byproduct that has the potential to become airborne and inhaled," Galiardi said.

"Industry has needed a cleaner, safer surface pre-treatment solution for a very long time," Galiardi added. "Sandblasting is inherently unsafe for operators. The silica glass used in sandblasting is toxic. An operator must wear a full HEPA suit when sandblasting to avoid breathing in particulates."

Sandblasting also is time-consuming to clean up since the sand essentially scatters everywhere, even though it is usually considered a "fast" cleaning method.

Chemical stripping: With chemical stripping, harsh, even toxic chemicals are used to strip metal-based ob-

jects of rust, paint and contaminants to bare metal. However, for operators, exposure to corrosive acids and noxious chemical fumes is inherently dangerous. The process can also be time-consuming to prepare the proper chemical bath, achieve the required level of cleaning, and dispose of the waste. In addition, disposing of toxic chemicals is costly and closely regulated by agencies like OSHA and the EPA.

Safe, effective laser cleaning

Laser-based systems have significant advantages over these traditional methods, including ease of use in which an operator simply points and clicks a high-energy laser beam at the surface. The substrate is not affected by the laser, and the systems do not create any mess or byproducts. The approach is eco-friendly, energy-efficient, and completes the job in half the time of traditional methods when preparation and cleanup are considered.

"In our experience, laser cleaning is as fast at removing rust or old coatings as other methods, but without the same amount of cleanup," Galiardi said. "When we treat a surface with lasers, any fumes or dislodged particulate is extracted into a HEPA filter and the job is done. There is no media [sand, chemicals] to replenish or clean up."

Galiardi Laser Clean uses laser systems made by Orlando, Fla.-based Laser Photonics, a provider of patented industrial grade CleanTech laser systems for cleaning and surface conditioning. The American-made systems function either as mobile standalone units or can be integrated into production lines.

The laser systems are available in portable and stationary models ranging from 50 to 3,000 watts (a 4,000-watt version is in development) with chamber sizes from 3' x 3' in size to 6' x 12'. The systems can also be installed in manufacturing lines in cabinets or operated by a robotic arm.

In the shipbuilding industry, operators are utilizing the industrial grade laser systems to maintain a wide range of vital interior and exterior equipment. Operators are using CleanTech systems to smooth surfaces and remove rust and scale from engines, generators, fuel pumps, water separators, winches, anchoring chains, gear shifting and throttle components without disassembly. This improves safety, function, lifespan and reduces the risk of premature failure.

The laser systems similarly maintain door hinges and locks as well as remove saltwater stains from metal surfaces. In addition, the technology is used for selective depainting and cleaning of access points, service latches and other maritime applications.

With clean laser technology, there is now an environmentally friendly alternative to abrasive blasting and chemical stripping for surface pretreatment, Galiardi said. The approach is safer for operators and highly adaptable to a wide range of maritime applications.

"As people become more aware of laser-based systems and compare them to traditional methods, they need to factor in prep and cleanup time, which can significantly impact project cost. When the improved operator safety, equipment longevity and lower maintenance of laser systems are also considered, the clean laser technology has a much higher ROI," Galiardi said.

The longevity of low-maintenance laser systems further adds to their value, increasing ROI and making replacement unnecessary for decades.

"CleanTech laser systems can last for 50,000 to 100,000 hours. That's many decades working eight-hour days. After purchase, there's virtually no maintenance necessary," Galiardi said.

Vessels

HaiSea Wamis


Seaspan

In July, Canada welcomed the arrival of the its first fully electric tugboat, HaiSea Wamis. Built by Sanmar Shipyards in Turkey, the vessel is the first in a series of three Robert Allan Ltd. designed ElectRA 2800 battery electric harbor tugs being constructed for HaiSea Marine, a joint venture partnership between the Haisla First Nation and Seaspan ULC, to provide ship-assist and escort towing services at LNG Canada's new export facility.

The three fully electric tugboats will be ABS classed and equipped with Corvus' Orca Energy ESS, each vessel having a total battery capacity of 5,288 kWh to drive two Schottel azimuthing L-drive propulsion units powered by electric motors integrated on top of each unit. Each tug will also feature a pair of Caterpillar C32 generators, though the operator notes that all operations will be completed 100% on electricity.

With hydroelectric power available at Kitimat, the harbor tugs will be able to recharge from shore charging facilities at their berths between dockings, resulting in near-zero-emissions when running on batteries.

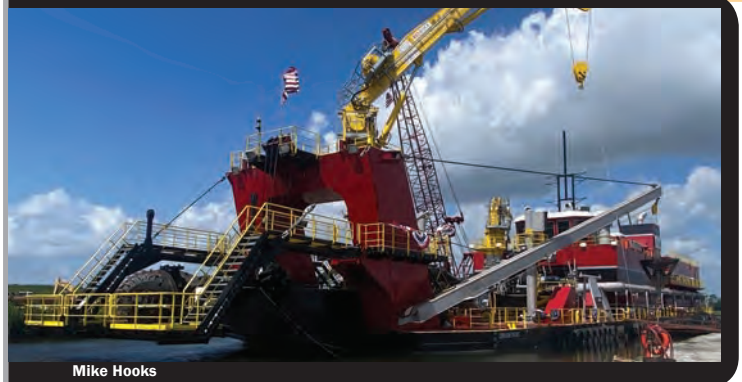
Janet Marie


Pasha Group

Hawaii-based Pasha Hawaii has taken delivery of the second of two new 'Ohana Class, 774-foot liquefied natural gas (LNG) powered containerships built at the Keppel AmFELS shipyard in Brownsville, Texas. The new vessel, Janet Marie, joins Pasha Hawaii's fleet serving the Hawaii/U.S. mainland trade lane, following the company's first 'Ohana Class vessel, George III, which entered service in 2022.

Operating on LNG from day one, the new Jones Act vessel surpasses the International Maritime Organization (IMO) 2030 emission standards for ocean vessels. Energy efficiencies are also achieved with a state-of-the-art engine, optimized hull form and high-efficiency rudder and propeller.

Lorraine Hooks

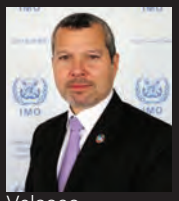

Mike Hooks

A new cutter suction dredge (CSD) has been christened for Westlake, La. based dredging contractor Mike Hooks. The 27-inch CSD Lorraine Hooks was built at Southwest Shipyard in Galveston, Texas and delivered to its owner earlier this year. The newbuild is named after the wife of the company's founder.

C-Job Naval Architects, based in the Netherlands, served as systems integrator and was responsible for the full design scope including the majority of the dredge equipment for the dredge on behalf of Mobile, Ala. based SPI / Mobile Pulley Works, which constructed the dredge equipment.

The 300- by 50-foot Lorraine Hooks, with a dredging depth of 75 feet, will be deployed on both coastal restoration and navigation dredging projects in Louisiana and across the Gulf region to improve climate resiliency and strengthen maritime infrastructure.

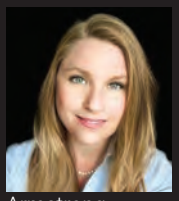
People & Companies


Velasco

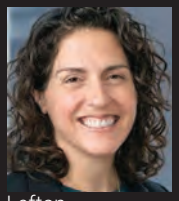

McDonald


Doyle

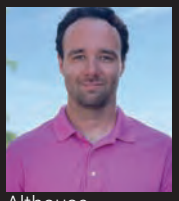

Dumont


Armstrong


Hume


Lefton


Henkin


Althouse


Kennedy


Wypyski


Casey

New IMO Secretary-General Elected

The International Maritime Organization's Council (IMO) elected Arsenio Antonio Dominguez Velasco from Panama as its secretary-general. He will take office on January 1, 2024, for a four-year term, subject to the approval of the IMO Assembly.

McDonald Elected ABS President

John McDonald was elected president of ABS at its board meeting on July 18. McDonald, who has served as the company's executive VP and chief operating officer since July 2021, will remain COO as he takes on the president title.

Doyle Returns to Lead DCA

William P. Doyle has returned to lead the Dredging Contractors of America as CEO and executive director.

Tidewater Elects New Chairman

Tidewater has appointed Dick H. Fagerstal nonexecutive chairman of the board, succeeding Larry T. Rigdon who did not stand for reelection and is retiring form the board.

Dumont Takes the Helm at Cal Maritime

Michael J. Dumont has started his tenure as interim president of California State University Maritime Academy.

Armstrong Joins WCI

Jen Armstrong joins Waterways Council, Inc. as director of government relations.

Hume Named President at W&O Supply

W&O Supply has appointment Michael Hume as president.

Lefton Joins RWE

RWE has hired former BOEM head Amanda Lefton as VP of Offshore Development, U.S. East.

Mack Boring Promotes Henkin

Jonathan "Jon" Henkin has been promoted to the role of chief operating officer for Mack Boring & Parts Co.

BHGI Hires Two

Bristol Harbor Group, Inc. announced the continued expansion of its firm with two new naval architect hires: Taylor Althouse and Kasey Kennedy.

Port NOLA Names Wypyski COO

The Port of New Orleans named Matthew Wypyski to its executive team as chief operating officer.

Donald L. Blount Memorial Graduate Scholarship Launched

DLBA Naval Architects, a division of Gibbs & Cox, a Leidos company, announced the creation of the Donald L. Blount Memorial Graduate Scholarship. The scholarship is offered through the Society of Naval Architects and Marine Engineers and will support graduate and post-graduate students in the field of high-speed craft hydrodynamics.

Casey Joins DSC Dredge

DSC Dredge has welcomed to its team Keith Casey as project manager.

Products

1 VETUS Maxwell

2 In-Mar Solutions

4 HamiltonJet

1. HPW Series Waterlocks from VETUS

The heavy-duty HPW series of waterlocks from VETUS can handle extreme conditions above 500 °F. A cost-effective option, these waterlocks feature rotating bodies and hose connections, a high-capacity water lift design, and excellent sound attenuation.

https://vetus.com/usa/exhaust-systems

2. In-Mar Solutions: Alu Pilot Chairs & Deck Rails

In-Mar Solutions offers a complete line of Alu Design & Services Marine Pilot Chairs and Deck Rails. There is a standard line in addition to the option for custom designs to suit specific needs. Sleek, modern design and maximum utility and comfort are emphasized.

www.inmarsystems.com

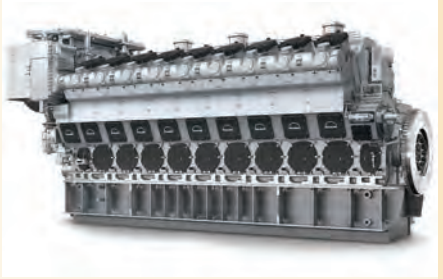
3. Peregrine u8 LEO on OneWeb's LEO Network

Flat panel satellite antenna company Kymeta and low Earth orbit (LEO) satellite communications company OneWeb announced that Kymeta's electronically steered Peregrine u8 LEO terminal is now commercially available, becoming the first flat panel antenna to serve the maritime market on OneWeb's LEO network. By tapping into OneWeb's enterprise-grade connectivity, all large vessels – from super yachts to commercial fishing and shipping vessels – can now connect easily and seamlessly at sea as they would on land.

4. LTX36 Waterjet

HamiltonJet has unveiled a new range of high-efficiency waterjets, starting with the LTX36 model. Optimized for medium- and low-speed operation, New Zealand-based manufacturer said it has produced the first waterjet to rival the energy efficiency and bollard pull of the best propeller-based systems between zero and 30 knots. LTX36 features ultra-efficient mixed-flow pump design, compact in-board footprint, narrow width for compact driveline spacing, Direct Drive capability and refined corrosion protection.

5 MAN Energy Solutions



5. Methanol Engine Retrofits

MAN Energy Solutions is working to develop methanol retrofit solutions for medium-speed marine engines as part of a research association including WTZ Roßlau gGmbh and TU-Darmstadt. The three-year research project, CliNeR-ECo, is funded by the German Federal Ministry for Economic Affairs and Climate Action (BMWK) with initial work having already commenced at the beginning of 2023. MAN is currently planning a first retrofit project based on an MAN 48/60 engine; the first retrofit of a fully functional test engine is scheduled to reach the testbed in 2024.

Marine Marketplace

VESSELS FOR SALE / BARGES FOR RENT

NEW PRODUCTS

NEW PRODUCTS

ADVERTISER INDEX

Page	Company	Website	Phone#
37	Ahead Sanitation	www.aheadsanitationsystems.com	(337) 330-4407
21	All American Marine	www.AllAmericanMarine.com	(360) 647-7602
27	Arcosa Marine	www.arcosamarine.com	(615) 400-4373
25	Bristol Harbor Group, Inc.	www.BristolHarborGroup.com	(401) 253-4318
9	Cassens & Plath GmbH	www.cassens-plath.de/en	49 431 7027 174
15	Clean Gulf	www.cleangulf.org	Visit us online
41	Creative Systems	www.ghsport.com	(360) 385-6212
7	Crowley	www.crowley.com/wind	Please visit our website
C2	David Clark Company	www.davidclark.com	(508) 751-5888
1	DMW Marine Group, LLC	www.dmwmarinegroup.com	(610) 827-2032
31	Environmental Marine, Inc.	www.envmar.com	(606) 561-4697
17	Gladding Hearn	www.gladding-hearn.com	(508) 676-8596
25	Hilliard Corp.	www.hilliardcorp.com	(607) 733-7121
3	Marine Systems, Inc	www.marinesystemsinc.com	(985) 223-7100
39	McDonough Marine Service	mcdonoughmarine.com	(504) 780-8100
19	Pennel and Flipo	www.pennelusa.com	(843) 881-9026
C4	R.W. Fernstrum & Company	www.fernstrum.com	(906) 863-5553
41	Rhotheta International Inc	www.rhothetaint.com/marine	(954) 495-8700
31	Ribcraft USA LLC.	www.ribcraftusa.com	(781) 639-9065
27	Robert Allan Ltd.	www.ral.ca	Visit us online
13	Scania, USA Inc.	www.scaniausa.com	(210) 403-0007
19	SEATAC Marine	www.seatacmarine.com	(206) 767-6000
33	Shipping Insight	www.shippinginsight.com	(203) 255-4686
5	The American Equity Underwriters, Inc.	www.amequity.com/safety-awards	Visit us online

The listings above are an editorial service provided for the convenience of our readers.
If you are an advertiser and would like to update or modify any of the above information, please contact: nicole@marinelink.com

IGP

INTELATUS

GLOBAL PARTNERS

OFFSHORE WIND MARKET INTELLIGENCE PACKAGE

2022 U.S. Offshore Wind Outlook and Market Forecast

The monthly report and database contains all of the latest developments and information on the projects that will lead the U.S. to deploy 30 GW of offshore wind by 2030 and 110 GW by 2050. The report contains insights to support component manufacturers, shipyards, vessel owners and operators, service providers, ports and terminal operators, public agencies and financial institutions amongst others to better understand the opportunities and challenges presented by this growing segment.

Get all the information you need to access this growing multi-billion dollar market today!

VISIT US

WWW.INTELATUS.COM

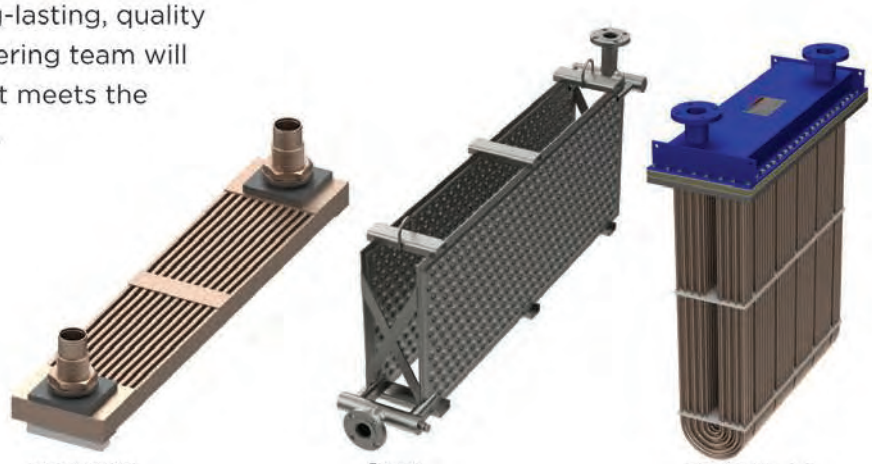
ENGINEERED COOLING SOLUTIONS

OVER 70 YEARS COOLING THE MARINE INDUSTRY

R.W. Fernstrum is committed to providing long-lasting, quality marine heat exchangers. Our sales and engineering team will work with you to custom design a solution that meets the needs of your vessel and operating conditions.

FERNSTRUM®
R.W. Fernstrum & Company

fernstrum.com
906.863.5553
sales@fernstrum.com
ISO 9001:2015



GRIDCOOLER® Keel Cooler

Omega Laser Plate™

WEKA Boxcooler®