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On the Cover

Before tariff events unfolded in late March 2025, markets for inland and coastwise transportation of oil and refined products were brightening.

(Photo: Courtesy McAllister Transportation)

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Editor's Note



Greg Trauthwein, Editor,
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Scan to read
the April 2025
eMag edition



We've been talking about 'the next generation' for longer than I can remember, and when you look up and down the waterfront, we, as an industry, are indeed 'aging out' and a clear line of succession is fuzzy at best. But the tide will turn, particularly as industry leaders such as **Crowley** and **Saltchuk** increasingly extend their outreach to younger and younger sets of eyes, ears and minds. Scan the QR code to the left to read the April 2025 eMag edition dedicated to the **maritime workforce development**.

Looking ahead to the cumulative towboat, tugboat and barge market, companies serving the critical role of moving raw material and finished goods in and around the US' vast waterway system are in the same boat – no pun intended – as every other corporate leader that has faced uncertainty in the wake of the recent tariff blitz that has momentarily upended many markets and traditional trade patterns. Per usual, the best way to cut through the smoke and mirrors is to follow the money, and in this edition we're pleased to have **Barry Parker** take a fresh look at several industry

leaders, from **Kirby** to **Moran** to **McAllister** and many points in between to see how markets, money and assets are moving. In maritime, now faced with unsettled markets, a push to decarbonize and the true advent of digital revolution, scale is increasingly important and if you want the "Cliff's Notes" version of Parker's article it comes down to one word: **CONSOLIDATION**.

While general market's spasms and moves to slash government spending have resulted in uncertainty, I see palpable excitement. I've covered this market for more than 33 years, and in the last four months I've heard more from the federal level on maritime – more attention, more action and more pledge of investment in the U.S. shipbuilding – than I've heard cumulatively in the last three decades.

On a final note, I'd like to leave you with a 'great read alert'. It's certainly not new, but if you've not read "**FREEDOM's FORGE**" by Arthur Herman, pick it up today. The book was recommended to me by **FMD CEO George Whittier**, and it is an inside look at the U.S. industrial machine, its build-up and role in helping the U.S. secure victory in WWII. There's a passage that summarizes the geopolitical climate, the political climate, the state of the U.S. Navy and the prevalence of 'misinformation' from the media, and when I read it I literally stopped and asked myself "is this the 1930s or 2025?" The more things change, the more they stay the same.

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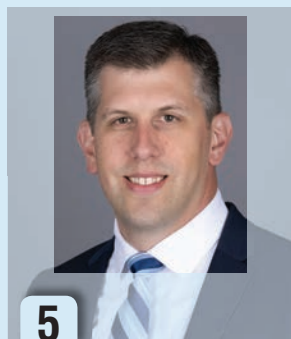
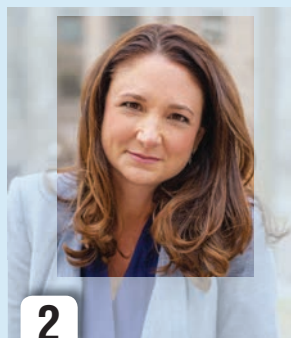
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Ports & Infrastructure

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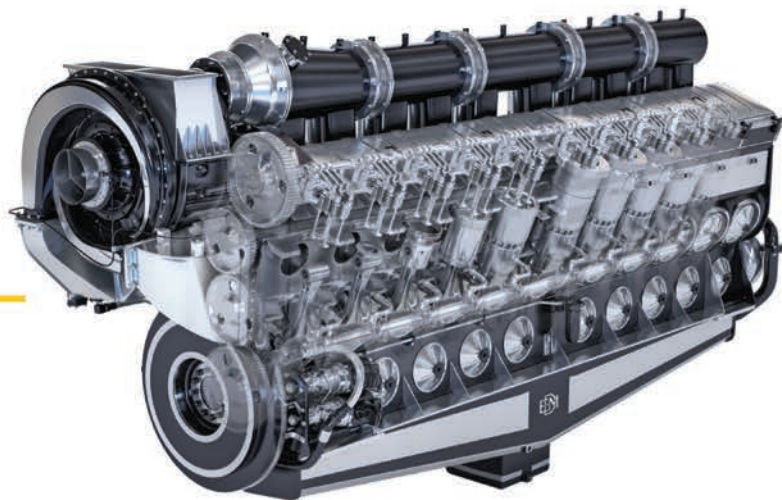
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of bdp1 Consulting Ltd provides strategic and tactical support, including analytics and communications, to businesses across the maritime spectrum. He is a freelance writer and regular contributor to this magazine.



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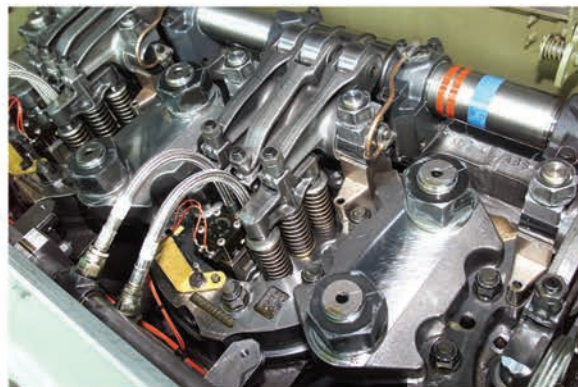
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U.S. NON-CONTIGUOUS DOMESTIC TRADE: Barge, Inland and Water Transportation

By J. Philip Nester, Senior Managing Associate with the Transportation & Logistics Practice, Benesch Law

The U.S. inland waterway system

is a critical and underutilized component of the domestic supply chain that serves non-contiguous markets originating in or destined for Alaska, Hawaii, and U.S. territories and possessions. For transportation service providers and shippers that operate in the domestic trade of the U.S., ocean carriers, barge operators, and inland waterway providers can offer cost-effective scalable alternatives to the traditional surface and air modes that connect these regions to the U.S. mainland.

Non-contiguous domestic trade involves a legal and operational framework that is complex and shaped by multi-agency oversight, legacy statutes, and evolving operational realities that involve the Surface Transportation Board (STB), the U.S. Army Corps of Engineers (USACE), and the Maritime Administration (MARAD). To navigate these complexities, prospective market participants will benefit an understanding of the interplay between these legal, regulatory, and operational schemes, as this remains a pathway for shippers and service providers to diversify their domestic supply chains and expand capacity to strengthen their operational resilience, particularly when other modes face broad service disruptions.

STB Jurisdiction

The STB has jurisdiction over waterborne transportation in the non-contiguous domestic trade of the U.S., even if a particular shipment moves through international waters. 49 U.S.C. § 13521. Stakeholders may see this as a benign authority, but recent STB rulemaking activity suggests there is a broader regulatory structure on the horizon. The agency's 2019 rulemaking that requires electronic tar-

iff publication and annual certification under 49 U.S.C. §§ 13701-02, signals a similar trend toward digitization as seen with other regulatory agencies, which has clear compliance implications for shippers and service providers.

STB Compliance: Tariffs

Legal compliance in waterborne transportation hinges on the tariff publication requirement. Pursuant to 46 CFR § 1312.3(a), all published tariffs for services subject to the jurisdiction of the STB must: (i) be filed in English; (ii) include an accurate description of the services offered to the public; (iii) provide the specific applicable rates explicitly stated in USD and service terms; and (iv) be arranged in a way that allows for the determination of the exact rate(s) and service terms applicable to any given shipment. The STB permits carriers under 46 CFR § 1312.3(a) to electronically publish and maintain tariffs on the websites or third-party vendor hosting sites.

Indeed, the STB requires carriers to maintain and make publicly available their tariffs, which must include applicable rates, charges, and other operational terms. 49 CFR Part 1312. The only stated exception to this publishing requirement is if a carrier provides transport for charitable purposes. Otherwise, carriers can only perform services in the non-contiguous domestic trade "if the rates, and related rules and practices, for such transportation or service are contained in a published tariff that is on file with the Board and in effect[.]" 46 CFR § 1312.2(a). A carrier that fails to appreciate and comply with its tariff publication (and amendment) obligations, particularly where inter-modal movements are implicated, create the potential for agency enforcement or even suspension or revocation of

operating authority.

With the increasing digitized compliance obligations of federal agencies, as well as the STB's enforcement trends, service providers need to maintain proactive tariff governance and digital audit readiness.

Commercial Growth & Infrastructure Development

The Fixing America's Surface Transportation Act (FAST) and the Water Resources Development Act (WRDA) serve as foundational policy tools the STB considers to build out and promote inland water operations and infrastructure, development, and investment. In 2017, the FAST Act accelerated long-delayed lock-and-dam modernization projects and the 2024 WRDA update reinforced federal support for channel maintenance, port dredging, and equipment upgrades. Carriers are only beginning to leverage programs spearheaded through these Acts to structure proposals that meet eligibility requirements, long-term network efficiencies, and commercial return on investment thresholds.

The U.S. Marine Highway Program (USMHP), which is administered by MARAD, is a federally backed initiative that promotes barge and short-sea shipping as a potential congestion mitigation tool. Carriers that have tapped into USMHP grants are seeing the following benefits:

- **Port Decongestion:** Inland ports established in Savannah, GA and Oakland, CA during congestion spikes illustrate the viability of a barge-supported network that can provide relief.
- **Labor Disruption Resilience:** During the 2025 port labor strikes, barge operators served as essential lift providers for diverted cargo to service the flow of automotive parts and time-sensitive agricultural goods.
- **Sustainability Metrics:** Environmental, social, and governance (ESG) requirements continue to drive shipper interest in water-based alternatives (e.g., a 15-barge tow can displace more than 1,000 trucks on the road, which reduces Scope 3 emissions and supports corporate carbon reporting benchmarks).

Carriers' participation in USMHP initiatives enhances both operational resilience and commercial value for shippers. The U.S. inland waterway system is structurally and environmentally challenged, which presents certain risks and barriers to entry, including:

- **Aging Infrastructure:** Downtime and delays are a threat, so monitoring for USACE scheduled maintenance can help carriers build delay clauses into commercial agreements and avoid force majeure disputes.
- **Environmental Compliance:** Carriers are increasingly subject to Environmental Protection Agency (EPA), Customs Border Patrol (CBP), and even state-level rules governing emissions, ballast water treatment, and fuel standards.
- **Competitive Modal Dynamics:** Barges dominate bulk movements such as grain, coal, petroleum, iron ore, etc., but competitive pricing, protracted delivery times, and other market pressures favor the use of railroads and trucks. Emerging services such as Container-on-Barge (COB) offer an opportunity to capture high-value time-sensitive cargo. However, there are practical considerations and risks such as terminal handoffs, liability thresholds, and container ownership that demand a tailored service agreement for COB operations.

Conclusion

Navigating non-contiguous domestic trade demands an integrated legal and operational strategy that accounts for ocean, barge, and inland waterway transportation under overlapping regulatory regimes. Shippers and service providers that consider the use of waterborne transportation, in addition to surface, rail, and air transport, are best positioned to mitigate risks that can arise when there are downturns in the market or broader supply chain issues. As the STB's regulatory landscape continues to evolve, proactive planning will be critical to ensuring long-term resilience and commercial success in this often forgotten segment of the U.S. supply chain.

By the Numbers

NAVIGATING THE FLOW

Between fiscal years 2018 and 2023, the U.S. Army Corps of Engineers (USACE) allocated approximately \$28.5 billion in construction funding across 278 water resources projects, spanning 47 states, Washington, D.C., Puerto Rico, and the U.S. Virgin Islands.

Source: United States Government Accountability Office (GAO) February 2025 report entitled: *ARMY CORPS OF ENGINEERS: Geographic Distribution of Construction Funding for Water Resources Projects*

The U.S. Army Corps of Engineers (USACE) experienced a notable increase in construction funding for water resources projects between fiscal years 2018 and 2023. Annual allocations rose from approximately \$3.5 billion in 2018 to nearly \$6.5 billion in 2023. A significant portion of this growth can

be attributed to supplemental appropriations, which provided an additional \$10 billion during this timeframe. These supplemental funds were often directed toward recovery efforts following natural disasters and aimed at enhancing the durability of existing infrastructure. For instance, in 2022, supplemental funding accounted for 40% of the total construction budget, underscoring the importance of flexible funding mechanisms in addressing emergent needs.

The \$28.5 billion in construction funding was distributed through two primary channels:

- **Directed Funding:** Approximately \$8.7 billion (30.5% of total funding) was earmarked by Congress for specific projects and activities through annual appropriations acts.
- **Non-Directed Funding:** The remaining \$19.8 billion (69.5%) was allocated based on eligibility criteria and considerations outlined in appropriations acts, as well as USACE and Army guidance documents.

The allocation of funds was influenced by a combination of congressional directives and USACE's internal prioritization processes:

- **Louisiana:** \$3.8B allocated to 19 projects.
- **Florida:** \$3.3 billion for 18 projects.
- **Texas:** \$1.9 billion for 17 projects.
- **Pennsylvania:** \$1.4 billion for 11 projects.

The six states that received the largest total amounts of construction funding in fiscal years 2018 through 2023 accounted for approximately 50 percent of total dollars and 34 percent of Corps projects that received funding during that period. Conversely, states like Wyoming received significantly less funding, with allocations as low as \$2.8 million.

THE TOP 10

Below are the Top 10 U.S. Army Corps of Engineers Projects that received construction funding, by Division, FY '18 through '23

AMERICAN RIVER COMMON FEATURES, NATOMAS BASIN, CA
Flood Risk Management - \$522,501,000

MISSISSIPPI RIVER LEVEES, AR, IL, KY, LA, MS, MO & TN
Flood Risk Management - \$583,604,000

RARITAN RIVER BASIN, GREEN BROOK SUB-BASIN, NJ
Flood Risk Management - \$601,900,000

KENTUCKY LOCK AND DAM, TENNESSEE RIVER, KY
Navigation - \$719,752,000

FARGO, ND - MOORHEAD, MN METRO
Flood Risk Management - \$722,000,000

NEW ORLEANS TO VENICE, LA (HURRICANE PROTECTION)
\$783,000,000

UPPER MISS RIVER - ILLINOIS WW SYSTEM, IL, IA, MN, MO & WI
Aquatic Ecosystem Restoration + Navigation - \$820,579,000

UPPER OHIO NAVIGATION, PA
Navigation - \$969,508,000

SAULT SAINTE MARIE (NEW SOO LOCK), MI
Navigation - \$1,567,596,000

SOUTH FLORIDA ECOSYSTEM RESTORATION, FL
Aquatic Ecosystem Restoration - \$2,600,642,000

Source: United States GAO - February 2025 report entitled: *ARMY CORPS OF ENGINEERS: Geographic Distribution of Construction Funding for Water Resources Projects*

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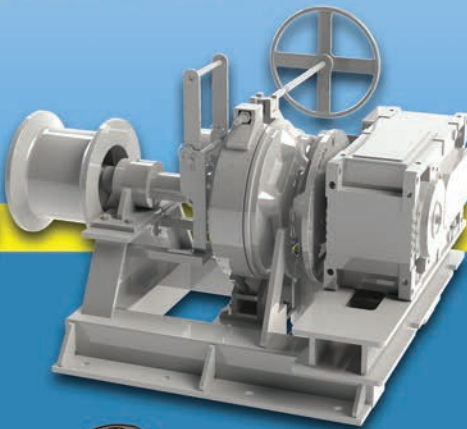


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Insights

Training Tips for Ships

The Drill Dilemma: Turning Routine Safety Drills into Lasting Lessons

By Heather Combs, CEO, Ripple Operations

Every mariner knows the routine:

alarms sound, crew muster, checklists are followed, and then everyone returns to work. But the question remains—are these mandatory safety drills truly improving onboard safety, or have they simply become boxes to check? The reality is, drills often suffer from predictability and repetition, causing crews to disengage and limiting their effectiveness. This month, we explore how to transform these routine drills into impactful and fresh learning experiences by combining them with microlearning techniques that reinforce skills, enhance recall, and foster genuine safety awareness.

Realism Matters

Safety drills should mimic real-life scenarios as closely as possible. When drills are predictable, they lose their educa-

tional value. For instance, if a fire drill always occurs at the same location and at roughly the same time, crew members will anticipate and mentally prepare for it, reducing their readiness for unexpected events. Introducing variability, such as changing the location, timing, or even the type of incident simulated, helps keep mariners alert and prepared. Realistic scenarios also encourage critical thinking and improve practical problem-solving abilities under pressure.

Microlearning: Small Lessons, Big Impact

Microlearning refers to delivering training in short, targeted lessons designed for quick understanding and easy recall. In maritime contexts, microlearning can mean five-minute safety talks, brief videos shown during shift changes, or interactive flashcards distributed through mobile



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Insights

Training Tips for Ships

apps. Integrating these bite-sized lessons into daily routines can reinforce the skills and knowledge gained during full-scale drills. For example, quick quizzes about emergency response procedures, repeated regularly, significantly improve memory retention and readiness.

Effective Debriefs and Immediate Feedback

Drills without proper follow-up lose their potential to drive improvement. A structured post-drill debrief is critical. Immediately after the exercise, gather participants to discuss what went well and what needs improvement. Encourage open dialogue and constructive feedback, focusing on specific actions rather than generalities. This feedback loop not only corrects misunderstandings but reinforces learning through reflection and discussion.

Rotating Roles: Encouraging Crew Engagement

When the same individuals always lead drills, opportunities for learning and growth diminish for other crew members. By rotating leadership roles during drills, you empower all mariners to become familiar with various responsibilities. This approach boosts engagement, increases situational awareness, and creates a more knowledgeable and versatile crew, ready to respond effectively regardless of who's present during an actual emergency.

Harnessing Technology for Training

The modern mariner's smartphone can become a pow-

erful training tool. Mobile apps that deliver short safety modules, daily tips, or quick safety quizzes offer convenient ways for mariners to engage with training materials at their own pace. These apps can track progress, identify gaps in knowledge, and adapt to individual learning needs. Additionally, providing digital resources such as short videos or scenario-based simulations enhances traditional drill programs, making them more engaging and impactful.

Practical Implementation

Here are actionable steps to immediately improve your onboard safety training:

- Vary drill scenarios regularly to avoid predictability.
- Use daily microlearning modules to reinforce critical information.
- Implement structured debrief sessions immediately following drills.
- Rotate crew roles frequently to ensure broad-based knowledge.
- Leverage mobile and digital technologies for continuous training reinforcement.

By combining realistic, varied drills with regular microlearning reinforcement, maritime organizations can transform routine safety drills into meaningful learning opportunities. Not only does this approach increase engagement and retention, but it also cultivates a proactive safety culture onboard.

Thank you for reading, and until next time, sail safely!

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Insights

Fred Paup, Manson Construction

Fred Paup

Chairman of the Board, EVP,
Manson Construction

Fred Paup *was an English major with a writing emphasis and published poetry. Not your typical dredging industry pedigree, but talk to Paup for five minutes and you'll find a knowledgeable, passionate and dedicated maritime executive, one that made the switch to "the left side of the brain" via hands-on work at the family business and an MBA earned along the way. Today he stands atop a \$500m maritime construction and dredging behemoth, a company that has increased its value six-fold since 2012 when it made the move to become an employee-owned company.*

By Greg Trauthwein



Image courtesy Manson Construction

Fred, can you give us a quick overview of Manson Construction, with insights on your career path in dredging. Did you always know that yours would be a maritime career?

Manson was started in 1905 by my great-grandfather **Peter Manson** and as the lore goes, my grandmother held the lantern as he dug up a jar of gold coins which was in the ground because they didn't trust banks. They took those gold coins and they purchased a winch and that winch then was put on a barge and that became Manson's first pile driver. Slightly after 1905, which would be 1992, I came to Manson and, at the time, Manson was a \$50 million revenue company. I started on the bottom rung and I did everything from bank reconciliations to administrative functions and worked my way up over the years, I got involved in dredging in the mid-'90s.

Before I was at Manson, I was an English major with a writing emphasis, I had a couple poems published; not your typical marine background! But when I came into

Manson, I didn't want to be perceived as dead weight. So, I ended up going back to school, earning my MBA while working, and then once I went to the dark side – *to the left side of the brain* – and the rest is history. Today, Manson is a \$500 million revenue company and, in 2012, we became a 100% S Corporation ESOP so we are employee-owned. Our salaried employees own Manson, and I'm proud to say that our value has increased almost six times since 2012, so it's been a fabulous part of our retirement program.

Can you give a by the numbers looking at the company, something that gives a size and shape to the company, it's maritime and dredging operations fleet and capabilities.

99% of our work over our time has been US based. We are a Jones Act company, **all of our equipment is US-built, US-flagged, US-crewed, built in US shipyards**, so that mainly is why we stick to the US market. We are roughly 50% heavy civil marine construction, that's bridges, wharves, piers for the Navy, offshore work in the oil patch removing platforms and jackets and then 50% of our business is dredging, and that's the three food groups of dredging, that's cutter section dredging, clam-shell dredging and hopper dredging.

Our headquarters is in Seattle with offices in Richmond, California; Long Beach, California; Houma, Louisiana; and Jacksonville, Florida. We perform most of our work on the Pacific, the Atlantic and the Gulf Coast. We have worked internationally, in Mexico, in the Caribbean, and in Canada. Canada has its own marine cabotage laws so, when we've worked in Canada, it's either have to have been a unique circumstance to get permission to work there which would be akin to a Jones Act waiver in the United States.

When you look at the dredging market in general, what are the drivers and how's business look for you in the coming five years?

We are in the salad days, as they'd say, of funding for US Army Corps of Engineers work with the Harbor Maintenance Trust Fund, percentage of those funds having increased over the years, the Army Corps has been able to get more projects done on their list.

There's been a huge buildup of equipment in the US dredging market and Manson has been part of that. We're building a 15,000 cubic yard hopper dredge, and once

Insights

Fred Paup, Manson Construction

the hopper is operating, we will pull the trigger on we are building a new 30-inch ABS offshore cutter suction dredge, so these are major investments that take literally years plan and years to build.

One of the interesting things about the US dredging industry that is different is that the US federal government has its own dredges that it operates, so there are limitations on what projects industry does. For example, around the country, there are what are called small business set-aside projects and so larger businesses can't do those.

That's great for smaller businesses but the problem is, if those small businesses get too busy, then they sometimes have a hard time responding.

At the same time, the Army Corps of Engineers operates its own hopper dredges. So, Portland District has two hopper dredges, the Essayons and the Yaquina, the New Orleans district has the Wheeler and the Philadelphia district has the McFarland. If they don't like our pricing or if there's an emergency and industry can't respond, then government dredges work there. So, it's really a unique market and an interesting dynamic.

Let's take a dive into the new Frederick Paup, the 15,000 cubic yard hopper dredge. Can you give us more detailed insight on the vessel, its technical capabilities and discuss the attributes that you see will set it apart?

Frederick Paup is years of experience and knowledge that Manson has built up with our hopper dredge Glenn Edwards. In 2006, we put the Glenn Edwards, a 13,000 cubic yard dredge, into service. The Frederick Paup is like the bionic man of dredges. So, when you compare the Frederick Paup to the Glenn Edwards, we tried to improve everything that we could. For example, she's bigger, 15,000 yards versus 13,000 cubic yards. She's faster, her whole form has been modified somewhat, she's 420 feet long by 81 feet wide. And we've done a number of safety improvements to make it to where our crew can go about a stern and still be below deck. We learned on one of the superstorm Sandy projects, where we put more than two million cubic yards of sand on the beach, when you're out off the coast of New Jersey in February, the weather is not good!

One of the benefits of engines being more modern, they

will be more fuel efficient, also their footprint isn't quite as big. Also, she is diesel-electric. Also, we have in-hole pumps for pump out, and we will be a lot more competitive on beach work than we've been previously. Not that we're uncompetitive, but our other equipment, the Newport, the Bayport, the Westport, the Glenn Edwards, all hopper dredges have focused more on the maintenance dredging. While they have pump out beach capability and we pump beaches all over the country, we will be dramatically more efficient. Our competitors are not going to like us, we'll be able to bid many more projects.

[Adding this new dredge is] like adding three Bayports to the Manson fleet, so our overall capability is going to be huge. We will be **the Cookie Monster of dredges**, eating up the work like crazy. We've been building in Texas, at Seatrium-AmFELS and the dredge is a little tardy but we are in commissioning stages right now [as of the interview in late January 2025].

You talked a little about the diesel-electric. What engines or what make did you fall on for the new unit?

They are Wabtec engines, formerly GE, and they are Tier Four. We could have gotten ones that had urea, but we didn't want to do that; we've done that before on one of our cutter section dredges for California before we powered it for the third time to meet air quality requirements; we knew that we didn't want that. The complexity and the cost for doing diesel-electric versus just straight diesel is a lot of money but, over time, we're going to pay for it in fuel, we're going to pay for it and be more environmentally friendly and we're also going to be more efficient.

Can you discuss what do you consider to be the number one maritime technology or technique that, in your opinion, has most substantially improved the ability to operate more safely, more efficiently?

This is a cheat of an answer, but I would say it's safety. Manson is IIF, incident and injury free, and it's more of a journey than, say, a program or a checklist. It's about employees having personal responsibility for what they do, but also it's for employers to do the best that we can to,

say, engineer out hazards. When you build a new vessel, take into account things from a safety standpoint to make the vessel safer for your employees to then go out and do a good job. Our number one core value is taking care of people; that's what we do. Whether it's our people, whether it's our subcontractors, that's what we do.

That was really a shift and we had a lot of old-schoolers who were not wild about the changes. A lot of people are used to what they call 'safety cops'; you're doing something bad, buckle that buckle, or put on your safety glasses, etc. We have the same problems today in safety that we had previously, it's hands, it's eyes, it's access and egress, it slips, trips and falls. But I can speak for Manson, our level of severity and frequency has gone down exponentially.

Can you put in perspective the importance of the Jones Act to your operation with insights on any threats that you see to the Jones Act currently today?

All of our equipment is US-built, US-flagged and US-crewed. It costs more money to do it that way. If we could have built our new hopper dredge in South Korea, we probably could have built it in half the time and for two-thirds the cost. But that's not the law, the law is the Jones Act and we abide by the law. That's paramount to what we do. There have been instances over the years where some competitors have tried to bring in some non-Jones Act compliant equipment and they've asked for waivers and so, as best we could, we have tried to fight those waivers and 99% of those have not gotten through.

For us, it's about an even playing field; if it's going to cost me X dollars per day for a US shipyard, then I want my competitor to have that same cost. I like to say, look, you can demand that I have a goat on the deck of a dredge as a requirement, so long as my competitor has to have a goat on the deck of their dredge, I'm okay, that's fine, just be consistent. As Trent Lott once said, *"I can sum up the Jones Act in one word: 'patriotism.'"*

Other countries have cabotage laws, it just so happens that in the US we refer to the Jones Act, a collection of laws. You have the Dredge Act which is part of the Jones Act, you have the Passenger Services Vessel Act, they all intertwine.

So there are markets around the world that, due to vari-

ous laws in various countries, you can't get in to. Do I want to sell real estate in England? Sure, why not? Well, guess what? I can't just go sell real estate in England, it doesn't work that way.

And the good news is for Jones Act supporters, it is supported on both sides of the aisle in Congress. You know why? Because dredging and infrastructure is agnostic to party. We need dredging so that our ships can come in fully loaded, lower those costs of goods, and we need US entities to do that work, to do that dredging so that our harbors are safe.

Jones Act aside, what do you count as the number one challenge to running an efficient, profitable marine construction and dredging business in the US today?

Well, I'd say it's two things. One which I already alluded to was the people. It's really the people that makes it happen, it's our employees. They are the ones that bring it home, they are the ones that make the operations successful. Thankfully, Manson has a lot of extremely smart people that do a fantastic job. The second part of that answer is we don't want to get too big for our britches in terms of projects that we take on. Bonding is a very important part of being a US dredger and contractor and we happen to be in an excellent position. So, we could bond a billion dollars of projects. We don't want to get overextended. One thing about being an English major and not an engineer is sometimes we fall in love with something because it's really cool and we figure out how to do it, but is it really something we should be doing commercially. Just because something's really cool and you have the capability to do it, is it something where you can earn a dollar? Manson is 120 years old; we want to be around in another 120 years. So part of our culture is we want to be making decisions that are longer-term, which is why we're building a \$200 million plus, 15,000 cubic yard hopper dredge.

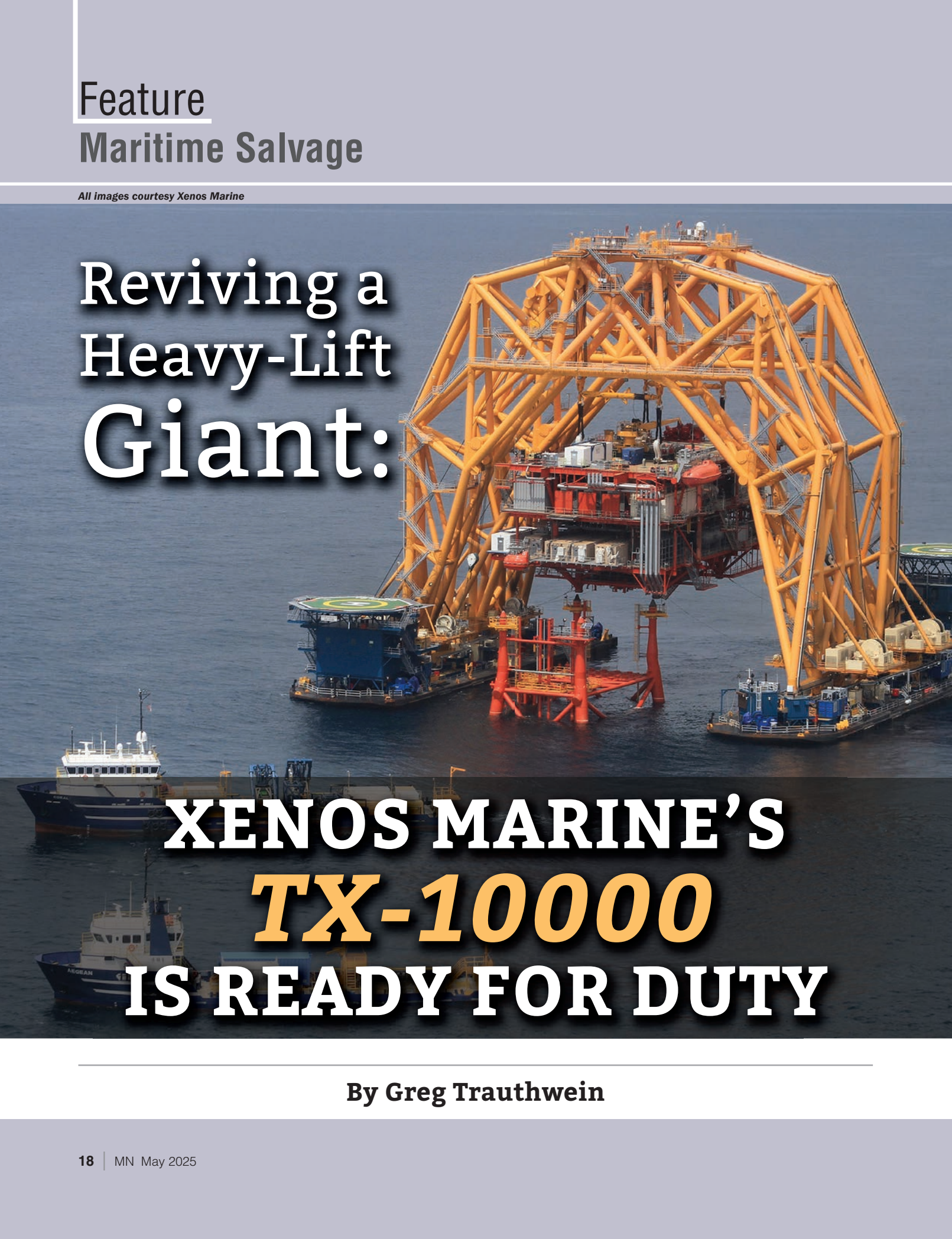
Don't get too enamored with your own reflection in the mirror and just, as I like to say, stick to our knitting. We need to stick to our knitting and not worry about what other folks are doing, it's not a race, it's not a competition. I don't care about revenue one iota; I want to be profitable and I want to be safe.

Feature

Maritime Salvage

All images courtesy Xenos Marine

Reviving a Heavy-Lift Giant:



XENOS MARINE'S *TX-10000* IS READY FOR DUTY

By Greg Trauthwein

Feature

Xenos Marine

One of the most powerful heavy-lift vessels ever built is entering a new chapter under U.S. ownership, reconditioned for major offshore work in the Gulf of America. Renamed the TX-10000, this twin-gantry catamaran is at the center of Xenos Marine's mission to expand domestic heavy-lift and decommissioning capabilities, following a major refit at Gulf Copper Ship Repair.

The TX-10000, previously known as the VB-10000, has a storied history. Originally commissioned in 2010 by Versabar as a next-generation evolution of the pioneering *Bottom Feeder*, the vessel was purpose-built for offshore decommissioning and salvage in the aftermath of destructive Gulf hurricanes. With a lifting capacity of 10,000 tons (limited in practice to 7,500 tons due to buoyancy), dynamic positioning to DP3 standards, and towering hook height of nearly 200 feet, the TX-10000 quickly became a unique asset in U.S. waters. Now, under the new banner of Xenos Marine — a partnership between longtime marine heavy-lift specialist Matt Fish and T&T Salvage's Kevin Teichman — the vessel is poised to play a key role in Gulf of Mexico operations once again.

A FULL-CIRCLE MOMENT

For Matt Fish, Managing Director of Xenos Marine, the relaunch of the TX-10,000 represents both a personal and professional milestone. Fish began his offshore career with

Versabar during the development of the *Bottom Feeder*, later managing operations for the VB-10000 through years of decommissioning and salvage campaigns. One of the most notable was the removal of the Golden Ray car carrier from the St. Simons Sound in Georgia—a complex project that required slicing the 700-ft. shipwreck into eight sections weighing up to 8,000 tons, using massive mooring chains as cutting tools.

That collaboration between Versabar and T&T Salvage laid the groundwork for the current partnership. When the opportunity arose to acquire the vessel from its interim owner, Fish and Teichman joined forces to launch Xenos Marine, with a mission to restore the TX-10000 to full operating strength and reintroduce it to the U.S. offshore market.

OVERHAUL @ GULF COPPER

One of the first moves under new ownership was to begin an extensive overhaul at Gulf Copper Ship Repair in Galveston, Texas. The vessel, now 15 years old, was overdue for its mandatory five-year special survey, and Xenos Marine acted quickly to secure drydock space and initiate repairs.

Gulf Copper handled steel and hull work, blasting and coating, and installed cathodic protection. Meanwhile, Xenos Marine launched a parallel refurbishment campaign that extended to nearly every critical system aboard.



Feature

Maritime Salvage



The *TX-10000*'s eight 1,000-hp thrusters—four on each barge—were pulled, inspected, and reconditioned. Hoses and electrical components were replaced. A complete re-rigging of the crane blocks is also underway, with new wire shipped in from South Korea: four 3.5-inch main hoist wires (7,500 feet each) and four 2-inch auxiliary wires (5,000 feet each). These cables support four primary 2,000-ton capacity crane blocks and four 500-ton auxiliaries, giving the vessel exceptional versatility for lifting topsides, jackets, or wrecks.

Once the wiring is installed, the *TX-10,000* will undergo a full load test and sea trial series, including functional failure mode effects analysis (FMEA) to validate offshore readiness.

READY FOR WORK

Xenos Marine has already secured a long-term contract with a major Gulf operator, with work expected to begin as early as June. Initial tasks will focus on platform decommissioning, including topside removals and jacket reefing operations. The goal, says Fish, is to keep the *TX-10000* working close to home—primarily in U.S. waters—to serve domestic decommissioning and salvage markets.

Beyond the vessel itself, Xenos Marine brings a broad portfolio of supporting assets to the table. Under the combined Xenos and T&T umbrella, the company operates small deck barges, supply and crew boats, and has engineering, diving, and survey capabilities in-house. Plans are underway to potentially add a mid-size crane barge to support increased demand.



A CREW REUNITED

One of the most remarkable elements of the vessel's rebirth is the reunion of its original crew. Many of the mariners and technicians who worked on both the *Bottom Feeder* and the *VB-10000* have returned to Xenos Marine, reassembling a team with nearly two decades of shared experience.

That continuity, combined with the vessel's unmatched lifting ability and the deep technical bench provided by the T&T Salvage partnership, puts Xenos Marine in a prime position to support America's growing backlog of offshore infrastructure removal projects.

As the Gulf Coast prepares for an uptick in decommissioning activity, the *TX-10000* stands ready once more—rebuilt, reflagged, and recommitted to serving U.S. waters.

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SCAN FOR DETAILS

USACE Photo by Leon Roberts

MEGA INFRASTRUCTURE:

INSIDE THE CHICKAMAUGA LOCK UPGRADE PROJECT

*An episode of **Maritime Matters: The MarineLink Podcast**, delved into the critical importance of the inland waterways infrastructure in the U.S., focusing on the Chickamauga Lock Project on the Tennessee River. A trio of experts – **Tracy Zea**, President & CEO of WCI; **Elizabeth Burks**, USACE Nashville Division Chief; and **Capt. Joe Cotton**, Project Manager, Chickamauga Lock Project – discussed the current state of the inland waterways, the history and significance of the Chickamauga Lock, and the ongoing efforts to modernize this essential infrastructure.*

Feature

Chickamauga Lock Upgrade

Key Takeaways

- There are 12,000 navigable miles of inland waterways in the U.S.
- 80% of locks are past their 50-year design life, increasing failure risk.
- Chickamauga Lock is a major civil works project of national importance.
- The new lock will significantly increase efficiency for barge traffic.
- Barge transportation is the cleanest – and sometimes only -- mode of surface transportation for large equipment.
- The Chickamauga Lock Project is expected to be operational by 2027, fully completed by 2029.
- Increased funding for the Corps of Engineers is essential for modernizing infrastructure.

The Chickamauga Lock, a vital component of the U.S. inland waterways system, is undergoing a much-needed rebuild to ensure continued economic and transportation benefits for the Tennessee Valley and beyond. The project, authorized in 2003 and expected to be completed by 2029, is a testament to the importance of modernizing aging infrastructure to maintain America's competitive advantage in global trade. It also is a testament to the very long life-cycle, and requisite need for consistent funding to power critical infrastructure projects of this size.

The U.S. inland waterways system spans 12,000 navigable miles and consists of 236 lock chambers across 196 facilities. These critical infrastructures facilitate the efficient movement of commodities such as agricultural products

and industrial materials, offering a cost-effective and environmentally friendly alternative to road and rail transport. However, many of these facilities are aging. "The majority of our locks were built in the 1920s and 30s, with 80% of them exceeding their 50-year design life," said Zea. The average age of locks is now around 60 years, making modernization an urgent necessity to prevent system failures and sustain America's economic competitiveness.

The Chickamauga Lock: A History

Commissioned in 1940 and a major component of the New Deal, the Chickamauga Lock has been a cornerstone of the Tennessee Valley's economic development. Originally designed for smaller barges, today's larger 35-foot-wide barges present challenges for the existing lock chamber, resulting in significant delays and inefficiencies.

"We are currently limited to passing one barge at a time, which can take up to 15 hours for a typical 15-barge tow," said Cotton. The new 110-by-600-ft. chamber will enable the passage of nine barges at a time, drastically improving throughput times and safety for mariners.

The Chickamauga Lock's structural issues stem from a chemical reaction in the concrete used during its construction, leading to degradation over time. Despite aggressive maintenance efforts by the Tennessee Valley Authority (TVA) and the U.S. Army Corps of Engineers, further investment was deemed necessary. "We reached a point of diminishing returns on maintenance, making replacement the only viable option," Cotton said. The partnership between the Corps and TVA is crucial to the success of this project. TVA manages recreation, hydropower, and flood



An aerial view of the Chickamauga Lock Replacement Project June 18, 2024, on the Tennessee River in Chattanooga, Tennessee. The U.S. Army Corps of Engineers Nashville District is constructing the new lock. When completed, it will be 600-feet long and 110-feet wide, and will handle nine barges per lockage. It will reduce commercial transit times by 80%.

Feature

Infrastructure

USACE Photo by Leon Roberts



Lt. Col. Robert W. Green, U.S. Army Corps of Engineers Nashville District commander, updates Congressman Chuck Fleischmann, Tennessee District 3, about ongoing construction at the Chickamauga Lock Replacement Project in Chattanooga, Tennessee. As chairman of the Energy and Water Development, Fleischmann visits USACE projects to understand how his subcommittee can support the nation's critical infrastructure projects.

control on the Tennessee River, while the Corps is responsible for navigation infrastructure. “A two-page memorandum from the 1960s still governs this partnership, a testament to the cooperation and shared vision of both organizations,” said Burks.

Key Milestones & Project Timeline

As with any public works project of this magnitude, levels and timing of funding is central to whole project efficiency.

“The decision was made to pull two mega projects out, the Kentucky Lock and Chickamauga Lock, so the team can

really focus their efforts on delivering these projects,” said Burks. “So they’ve been set aside from the typical portfolio that the district is executing on an annual basis, pulling those aside and really operating at a different level, a different speed, because we’re all about trying to deliver these projects for the nation. With the support of Waterways Council and other advocates including members of Congress, we’ve been able to receive supplemental funds that really gives us the boost in funding that we have to execute these projects faster,” said Burks. “Incremental funding is really an inefficient way to build a project. You would never build a house

one paycheck at a time, it just wouldn't be efficient, right? So with the ability to get this large influx of funds through supplemental, we can focus our efforts and get these construction projects built faster and into the system."

The project faced funding challenges early on, but significant progress has been made since concrete placement began in 2018. Major milestones include:

- 2010s: Site preparation and cofferdam construction
- 2017: Award of the lock chamber contract
- 2021: Award of the upstream approach wall contract
- 2026: Expected completion of lock chamber work
- 2027: Operational completion
- 2029: Full project completion

One of the most significant upcoming milestones is the arrival of the upstream miter gates, weighing 150,000 pounds each. "This effort is comparable to craning an M1 Abrams tank into place and welding 14 sections together," Cotton said.

Economic, Environmental Impacts

The upgraded Chickamauga Lock will enhance efficiency and support the growing demand for barge transportation. The inland waterways offer a sustainable alternative to road transport, reducing congestion and emissions. "Barge transportation is the cleanest mode of surface transportation, providing a valuable way to alleviate traffic and lower CO2 emissions," Zea emphasizes. Moreover, the Chickamauga Lock is already experiencing increased traffic, with a 50% rise in barge tonnage even before the new lock becomes operational. "We projected steady traffic, but demand has exceeded expectations," Cotton says, reinforcing the project's necessity.

The Chickamauga Lock rebuild represents a broader effort to modernize the nation's inland waterway infrastructure. With supplemental funding and streamlined project execution strategies, the Corps aims to complete future projects in shorter timelines. "Once funding was secured, the Nashville District executed efficiently, and we're hopeful this becomes the norm moving forward," Zea said.

The successful completion of the Chickamauga Lock will not only improve efficiency but also solidify the U.S. inland waterways' role in maintaining global competitiveness. As the project progresses, stakeholders remain committed to delivering a state-of-the-art infrastructure that will benefit the region and the nation for decades to come.



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Towboats & Tugboats

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NAVIGATING STORMY WATERS, INDUSTRY CONSOLIDATION AHEAD

Before tariff events unfolded in late March 2025, markets for inland and coastwise transportation of oil and refined products were brightening.

By Barry Parker

Feature

Towboats & Tugboats

Equity analyst Ben Nolan, Stifel, in a late February report, focused on conversations with top executives from **Kirby Corporation** (NYSE: KEX), reporting to investors that: “The company continues to benefit from very tight markets on the inland and coastal barge businesses. Inflation has pushed rates up and years of underinvestment means that the markets are getting tight, and likely won’t be able to fix that for years.”

Kirby is, by far, the largest operator of tank barges; with a fleet of nearly 1,100 units and an overall capacity of 24 million barrels.

On the dry side, Ken Eriksen, Polaris Analytics, offered a positive view for barging, posting (in days preceding the tariff ramp-up) that: “U.S. grain exports for the 2024-25 marketing year are forecast to hit a three-year high, with the Mississippi River system playing a critical role.”

But today, the picture is a bit less clear, and in particular all bets may be off for now, as China is a major destination for U.S. agricultural exports.

In his report, issued prior to the late-March “Trump

Slump”, which effectively was the driving down all sectors of the stock market, analyst Nolan had a “Buy” recommendation on the KEX shares. In early April, in a subsequent report, the analyst wrote: “However, we would highlight Kirby as a name that should be particularly interesting at current levels given the pullback relative to KEX’s virtually complete lack of direct tariff exposure.” At that time, KEX had pulled back to around \$90/share, having reached as high as \$104/share in mid-March.

Tariff policies aside, the inland sector was not without its challenges, at least in the short term.

Analyst Jon Chappell, from Evercore, suggested that we are seeing “pricing still 40% short of appropriate return economics and realistic delivery schedules pushing into 2028.”

Concerning barges on the inland waterways, he took a view that the present situation would turn around. In his report, he offered that: “There had been a narrative building that inland barge spot rates had begun to decline, which had pressured a stock that had greatly outperformed the market in 2024. KEX management acknowledged that spot rates were flat to slightly down sequentially (though



Bay Houston Towing Company

Feature

Towboats & Tugboats

term contracts, which represent the majority of revenue, were up high single digits) in 4Q as winter weather impacted utilization; however, thus far in 2025 utilization is recovering and spot rates have resumed positive momentum. Further, management confirmed a de minimis schedule of new barge orders...

Bigger Companies Dominate

Reporting on a meeting with Kirby management, Stifel's Nolan focused on potential consolidation in the inland barge space (which has been a trend in the coastwise sector during 2023- 2024), informing investors that: "... it sounds as though M&A opportunities in the inland barge market are becoming more real, which we believe could be a catalyst for the shares." Through the years, Kirby has grown by acquisitions; Stifel's analysis points towards more in the future, telling investors, "The improvement in the barge market has sellers investigating potential divestitures, and Kirby believes the best use of their cash at the mo-

ment is acquiring inland competitors. It is worth noting that because of the company's scale, their operating costs are significantly lower than those of their competitors..."

KEX, like others in the business, has continued efforts towards reducing emissions.

In its 2024 "Sustainability Report," KEX highlighted its Green Diamond initiative; the "hybrid" vessel with diesel electric propulsion and based in the Houston area (with a charging station at its dock), working for Kirby Inland Marine. Overall, Kirby's Sustainability reports indicate that its overall emissions of greenhouse gasses were dropping steadily, even as its fleet expanded. **Bay Houston Towing**, a regional powerhouse (which grew its fleet substantially with its late 2023 acquisition of eight vessels from **Seabulk**, serving Port Arthur, Texas and Lake Charles, La), has recently commissioned two Tier 4 tugs George M and May Louise-with the Z-Tech 30-80 Tractor tug design from **Robert Allan Ltd.**, built at yards in the U.S. Gulf and classed by ABS as Low Emission Ves-



Suderman & Young

sels. Two additional units, also with Tier 4 designation, with Robert Allan RAstar 3200-W design (8800 hp), are under construction at the Sterling yard, in Texas. The yard is also building similar vessels, also with and a Low Emissions certification from ABS, for **Suderman and Young**, based in Houston. Despite the change in U.S. administration and a loosening of environmental regulation, sustainability is still an important concern across maritime sectors. However, at least some pundits have noted that the movement to new fuels is slowing.

A session at the Capital Link International Shipping Forum, held at the end March 2025 in New York, was entitled “*Energy Transition: Is it still happening?*” Attendees at the April 2025 Connecticut Maritime Association conference (CMA, held in days following Capital Link), received a detailed view of ongoing efforts at **Moran Towing Corp.**, where Mary McCarthy, Director of Sustainability and Corporate Responsibility, was a panel participant.

Some participants on the CMA panel, titled “*Fueling Sustainable Change*” did note recent vicissitudes regarding maritime sustainability efforts broadly, but McCarthy stressed that “Regardless of the change in administrations, there are a number of things that we are looking at: the first is operational efficiencies and “things we can manage and control,” specifically mentioning “a speed reduction program with remote monitoring of vessels ... with feedback to the captains...” She cited benefits of both reduced emissions and reduced fuel costs. A second leg of Moran’s strategy are efforts at trying new technologies.



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Feature

Towboats & Tugboats

Specifically, she mentioned a program, now in its second year, of **renewable diesel trials in 12 vessels spread around five ports**. Though renewable diesel is a “drop in” fuel with no engine modification required, McCarthy pointed to the importance of training the crew in handling a new fuel.

The third tenet is the “collaboration” piece, including a leadership role in the **Blue Sky Maritime Coalition**, an organization working towards the transition to net zero emissions of greenhouse gasses (GHGs) among North American maritime operators. She described the company as building for the future, but said that: “...we still want to increase the operational efficiencies of older assets that we have.” Moran has four newbuilds on order, including a series of Robert Allan designed Rapport 2800 series boats under construction at **Master Boat Builders**, vessels designed and built to meet EPA Tier 4 requirements and holding ABS certifications for Low Emission (LEV) and for Escort operations.

Competitor **McAllister Towing**, based in downtown New York, has also been investing in sustainability; January, 2025 saw the launch of its tractor tug Isabel McAllister from the **Washburn & Doughty** yard in Maine. This 6,770-hp towboat features twin EPA Tier 4 compliant **Caterpillar 3516E** engines, with Z-Drives from **Schottel**; a similar tug,

Gerard McAllister, is under construction at the same yard. Both have the “Low Emissions” designation from ABS.

Looking at the bigger picture for alternative fuels, Moran’s McCarthy, spoke about fuel availability at CMA: “It’s a little bit of a turning point right now,” explaining that the fueling trials also gave Moran first hand experiences in dealing with fuel supply issues impacted by both Federal incentives and standards”, as well as state rules “which really drew a lot of demand to California.” Speaking of drop-in fuels, she said: “Our hope is that it continues to be available.”

Is ‘Being Green’ Waning?

At end March, after all the Q4 2024 earnings reports for listed companies (Moran and McAllister are both privately held) had been issued, news service Bloomberg reported that: “In boardrooms across America, mentions of sustainability and related terms on earnings calls have dropped steeply as public companies see less to gain from associating themselves with environmental goals.”

This comports with the “sighs of relief” for maritime transport providers (and other linkages in the supply chains of big industrial cargo shippers listed on U.S. stock exchanges), which came a year earlier when the Securities and Exchange Commission (SEC) issued its Final Rule



McAllister Transportation

Feature Towboats & Tugboats

Moran Towing

on Mandatory Climate Disclosure. Big industrial companies, including listed cargo movers, were not required to report their Scope 3 emissions of greenhouse gasses; providers of water (and other modes) transportation, are now under less pressure to report their emissions (factored into Scope 3 for the big cargo movers).

Carriers (part of the “Scope 3” for cargo shippers) may be less likely to feel compelled to report on their emissions in great detail. Consider the announcement from the **National Grain & Feed Association (NGFA)**, whose Transport subcommittee includes well-known names **ACBL** and **Ingram Barge**, when the SEC’s final language was announced: “Calculating Scope 3 emissions is widely recognized as being inherently much more difficult than determining direct and indirect emissions (Scopes 1 and 2)”. Ingram and ACBL are leaders in the dry segments, with around 3,900 and 3,000 barges, respectively, at end 2024.

The overall regulatory framework for the inland sector is impacted by attitudes in Washington, D.C. At the recent Marine Environmental Protection Committee 83 (MEPC 83) meetings of the International Maritime Organization (IMO), the U.S. delegation went on the record as not supporting the organization’s efforts at reducing GHGs, reflecting the views of the Trump administration. The new actions of the IMO regarding fuels apply to vessels of 5,000 gross tons, or more, on international runs, so are not directly impacting the inland sector. However, the U.S. stance at MEPC 83 provides hints at what domestic Federal regulatory impacts on fuels might be.





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Feature

Towboats & Tugboats

Carbon 'Scorers' Emerging; *But What are they Scoring?*



The SEC rules, where big cargo movers need not report Scope 3 emissions, apply to stock-listed entities, but reflect a broader mood. Bloomberg had noted that: “Green chatter on quarterly <investor> calls peaked at the beginning of 2022...” A year after the release of the SEC rules, the ESG fervor of 2021-2022 seems to have died down. However, the Artificial Intelligence (AI) revolution is now impacting public and private cargo shippers alike, many of whom will still be eager to trumpet their successes in reducing emissions. Indeed, a new wave of “carbon scorers” who are drawing on available “data” crunched through AI routines are rating carriers, including some well-known names in the inland, offshore and coastwise segments. One such scoring provider is the U.K. based startup [www.ditchcarbon.com](https://ditchcarbon.com), described as a “Scope 3 emissions platform.” Its rankings of various companies are not based on measuring devices mounted on vessel exhaust stacks; rather, its DitchCarbon score “... leverages proprietary algorithms to analyze dozens of data points specific to an organization and calculates their score between 0 and 100.” Specific pages on its web portal directed at “Maritime Transportation” say: “Each company has a DitchCarbon score, calculated based on 30+ company-specific emissions data points. The score ranges from 0-100, with higher scores indicating better environmental performance.”

Aaron Smith, President/ CEO of the Offshore Marine

Service Association (OMSA), representing owners working the offshore oil and gas fields (and, in recent years, offshore wind) several of which are listed in the DitchCarbon database, told *Marine News*: “I have serious questions about the validity of their data, and indeed, their overall methodologies. For starters, they missed the boat on describing the correct industry sector for three of our members, putting Hornbeck Offshore into ‘inland transportation’, Harvey Gulf into ‘land transportation’ and Edison Chouest into ‘manufacturing’.

Smith also had doubts about how the various scores were derived, adding that: “It is not clear where the ‘scores’ come from; they are something of a black box. What I would point out, even if the measurements were approaching accuracy – which is NOT the case here – is that vessels may need to engage in less than perfectly efficient operations in the name of safety. For example, the vessels operated by these companies could run their power plants a more optimum level, but doing so would expose them to a more dangerous condition where they would not have sufficient reserve power to escape a bad situation caused by a change in environmental conditions, equipment malfunctions, or a variety of other factors. These realities don’t seem to be captured in the Ditch Carbon methodology, which looks a lot like guess-work.”

<https://ditchcarbon.com/industries/maritime-transportation>

Digitalization: Coming to a Waterway Near You

For a while now, the large carriers have offered portals to customers for booking and managing shipments; one look no further than **Ingram Barge's Intellisoft**, **ACBL's ACBL Connect**, and **KEX's Kirby-compass**. The cloud-based **TowWorks** platform is used by many barge operators for operations, maintenance, and for planning. Now, a new generation of online offerings, aimed at the operational side of barging, is emerging. Consider **Opentug.com**, which has recently raised \$2.2 million (from an investor group led by New York based TMV, which has deep ties to international tanker shipping) to build out its **BargeOS** digital software platform. BargeOS is aimed at both the cargo side (for tracking shipments) and at the carriers (for fine-tuning tug/ barge operations). Another outfit worth watching is **Spotbarge.com**, serving operators and cargo customers in European waters, for now, but is in expansion mode. Its software is used to track barges in the fuel trades between refineries and distribution facilities. Besides aiming at the logistics side, its software is also used for constructing and evaluating price quotes on movements along the river system.



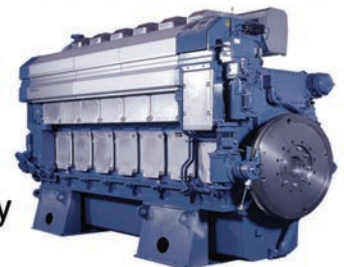
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Charting the Evolving U.S Offshore Wind Landscape

By Philip Lewis, Research Director at Intelatus Global Partners

Only four or five months ago,

the U.S. offshore market seemed poised to embark on a phase of major expansion to become one of the world's largest markets for offshore wind installations. How things have changed with the swearing in of the new Trump Administration, which clearly promoted and followed through on its anti-offshore wind stance during the election campaign. The table below summarizes the high-level impacts to the U.S wind forecast since January.

Previous administration "business as usual" case

- Set goals to reach 30 GW of offshore wind by 2030 and 110 GW by 2050.
- Developers proposed a pipeline of over 100 GW of project capacity and ~6,800 turbines to be installed, of which ~58 GW to be commissioned by 2035.
- Behind the targets were commitments to invest in locally built vessels and multiple turbine, monopile and subsea cable factories.

Updated forecast based on Trump administration actions

- The overall pipeline has fallen to ~86 GW and ~5,680 turbines.
- The revised forecast is for ~15 GW of capacity and ~1,100 turbines to be grid connected by 2035, ~43 GW less than the previous forecast.
- As a result of the uncertainty developers have deferred investment plans and several manufacturing facility investments have been cancelled.

The long-term pipeline still amounts to ~85 GW of installed capacity, but much of this is forecast to be commissioned late in the next decade, going into the 2040's.

The high-level message is that there will be no new permitting, no new project approvals and more legal challenges to existing project approvals, resulting in limited activity and higher developer risk for at least the next four years. Uncertainty has increased and confidence in the segment has been thoroughly shaken.

In our latest U.S. market report, Intelatus Global Part-



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Column

Offshore Wind

ners takes a deep dive into the changes to the offshore wind landscape in the United States and assesses the impact on project activity.

What has Happened?

On the day that he was sworn in to office, President Trump issued a Presidential Memorandum entitled “Temporary withdrawal of all areas of the Outer Continental Shelf for offshore wind leasing and review of the federal government’s leasing and permitting practices for wind projects”.

Under the Presidential Memorandum on offshore wind, there will be no new offshore wind leases issued on the outer continental shelf (OCS) until the suspension is withdrawn, existing awarded leases supporting ~40-80 GW will be reviewed to see if there are any legal reasons to cancel the leases and no new construction and operation approvals will be given, which currently impacts ~14 GW of project capacity. In the worst case, at least 50 GW of project capacity which developers had planned to advance over the next four years will not materialize.

As a direct result of the changing environment, several developers have delayed projects and several significant supply chain investments have been cancelled. Utilities and developers in Massachusetts and Rhode Island have recently asked for a three-month extension to negotiations for ~2 GW of power purchase agreements for the South Coast Wind and New England Wind projects. Whilst New England Wind has completed permitting, SouthCoast Wind has yet to secure the award of permits from three federal agencies. As a result, the developer, Ocean Winds, has recognized a ~\$270 million impairment on its U.S. offshore wind portfolio and expects a delay in project construction from 2026 to 2030. The permitted Atlantic Shores South development has already seen one of its approved permits withdrawn by the Environmental Protection Agency for further review. Legal challenges outside of federal agencies to permitting projects are also ongoing, including multiple cases addressing permitting issues put forward to district courts and to the Supreme Court.

While not directly targeted at offshore wind, other presidential executive orders and initiatives will impact offshore wind projects, such as tariffs on imports or a proposal to

impose penalties on owner/operators of Chinese-built vessels. Further, disbursement of IRA (Inflation Reduction Act) related tax credits, on which many offshore wind projects rely, is on hold and law makers are reviewing which tax credits will remain in the new federal budget.

Is that it – is the industry in the U.S. dead and buried?

While the industry has taken quite a hit over the last few months, there are some reasons to maintain longer-term optimism premised on the activities of several individual states. The foundation of this optimism is ~81 GW of state procurement targets. Nine Northeast and Mid-Atlantic states have established legally binding offshore wind targets amounting to ~53 GW through 2040. On the Pacific Coast, California and Oregon seek to collectively procure 28 GW of floating wind by 2045. Other states add ~17.5 GW of inferred targets to the planning pipeline. To date, ~9 GW of federally permitted capacity has secured offtake agreements and a further 2.5 GW is expected to be procured within this year.

~5.5 GW of commercial wind farm capacity is being built. Offshore construction works are advancing on Vineyard 1, Revolution, CVOW-C, Sunrise and will start on Empire Wind 1 in early April, and site assessment for future developments continues in other offshore leases.

What does this mean for the maritime supply chain?

Offshore wind construction and O&M vessels were previously designated as vessels of “national interest”, meaning they received priority treatment for preferential financing terms under the Federal Ship Financing Program (MARAD Title XI). It is unclear how this program will be managed going forward but it is assumed that the priority will no longer be on offshore wind vessels.

While there remains space for foreign flag construction vessels, mainly for turbine and foundation installation and cable lay, much of the offshore wind market in the USA is restricted to Jones Act vessels.

One Jones Act compliant WTIV (WTIV Charybdis), one scour protection vessel (Acadia), three Tier 1 SOVs (two ECO new builds, one for Ørsted’s Northeast Cluster and one for Empire Wind, and one Fincantieri Bay vessel for Dominion’s CVOW-C), one Tier 2 SOV (a Hornbeck SOV conversion) and 38 CTVs (excluding

Column Offshore Wind

around options and SOV daughter craft) are currently either operational or are being built.

Further, ongoing construction of windfarms in the Northeast Atlantic has resulted in numerous short – and medium-term vessel charters for vessels holding a U.S flag, including tugs, AHTSs, PSVs, MPSVs and OSVs, many from the Gulf of Mexico oil & gas fleet.

However, the uncertain outlook for the Jones Act wind fleet is not so positive.

The cost of Dominion's WTIV Charybdis is forecast to rise to around \$625 million by time of delivery (at least one year late) versus an initial \$500 million cost estimate and compared to the \$325 million cost of WTIVs contracted in Asian yards with similar specifications in the same period. The WTIV will initially be busy with the construction of 176 turbine CVOW project, but thereafter opportunities outside of new construction and major component exchange for existing wind turbines are potentially limited. The Charybdis could possibly take work in the European segment if the market supply tightens and rates increase sufficiently, although this is not an immediate opportunity.

Great Lakes Dredge & Dock is building the first Jones Act compliant purpose-built wind farm fallpipe rock installation vessel, the Acadia. Originally estimated to cost around \$197 million, the current cost estimate for the vessel which is being built at Hanwha Philly Shipyard is close to \$250 million. The vessel will be delivered too late for its planned

first assignment, foundation preparation at Empire Wind, where work will be undertaken by Great Lakes' partner Van Oord. The delivery date for the vessel has slipped from November 2024 to September 2026. The vessel is contracted to work at Ørsted's Sunrise Wind and a further unnamed permitted project. Given the current vessel delivery delays and challenges to permitted projects, this vessel may still face significant utilization risks.

Pricing challenges have also impacted the logistics segment.

Three tier one SOVs are being built by ECO (two) and Fincantieri Bay Shipbuilding (one). These vessels currently have secured long-term contracts for permitted projects with offtakes, which currently provides utilization mitigation. If off-hire, it is anticipated that these vessels would struggle to find profitable utilization. The vessels are reported to cost ~\$97-168 million. Similar spec SOVs contracted in Europe in the same period were priced at ~\$62-69 million.

U.S. CTV pricing is indicated at

~\$12-15.5 million per vessel with a construction cycle time of at least 12 months per vessel (and as much as 15-20 months). By comparison, leading Southeast Asian yards will sell European specification CTVs for around ~\$6 million per vessel, with build cycles of 8-10 months and capacity to produce 10 vessels a year. The challenge for much of CTV fleet will be redeployment. Over one quarter of the fleet has secured long-term operations support charters, with the remaining delivered vessels working in the construction and commissioning phases. As project permitting stops and challenges to existing permitted projects and leases increases, the utilization outlook is not positive.

Wait and See

While it would be easy to write-off the U.S. wind market, there remain short- and mid-term opportunities. As long as developer confidence in the market can sustain, the longer-term opportunity continues to have great potential.

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GravityVibe in Action: System Optimization is Underway

Following studies to verify GravityVibe's feasibility, MacGregor is now engaged in the real-world validation and optimization of its self-unloading system. Evidence that verifies the advantages of GravityVibe has been accumulating since MacGregor introduced the augmented gravity self-unloading system to market in February 2024.

Developed to allow bulk carriers to deliver a wider variety of cargo in greater volume, GravityVibe eases the discharge of coarse materials from cargo holds. In contrast with a standard gravity self-unloading configuration, where slope angles range from 35 to 60 degrees depending on the material, MacGregor's system can discharge various cargo types with slope angles of just 15–20 degrees.

MacGregor collaborated with various institutions and organizations to verify GravityVibe's feasibility. In a simulation, TUNRA – a wholly owned subsidiary of the University of Newcastle, Australia – found that GravityVibe functioned effectively with the three materials tested: wood chip, manufacturing sand, and gravel.

MacGregor sought to ascertain the impact of the system's vibrations and how to minimize their transfer into the vessel's hull structure. The company worked with leading international sub-suppliers, and separately with the KTH Royal Institute of Technology in Sweden, to conduct thorough vibration and sound analyses. In both studies, vibration and sound readings were comfortably within the class-defined threshold. MacGregor is now engaged in efforts to validate the system's performance via a full-scale test rig in China. The company has confirmed the findings of TUNRA, its sub-suppliers, and KTH: GravityVibe efficiently discharges wood chip, manufacturing sand, and gravel, while both vibration and sound levels fall far below the upper limits stipulated by class.

Building on these results, MacGregor continues to validate GravityVibe's performance in real-world tests. According to Mikael Häggglund, Sales Manager for General Cargo, the company has turned its attention to optimizing

the system based on data gathered from the test facility.

"All the materials we have tested have flowed without any issues, so we know GravityVibe works, which is the first and most important step," he says. "As our approach to R&D emphasizes continuous improvement, we are now working to finetune the system's performance by adjusting its parameters for even more efficient and reliable cargo discharge."

While theoretical studies and extensive in-house testing are crucial aspects of MacGregor's R&D process, the company also places great importance on customer demonstrations and feedback. "By discussing GravityVibe with our customers, showing them its functionality and inviting their input, we gain a deeper understanding of what matters most to their operations," said Tomas Wallin, Senior Product Owner, MacGregor. "Customer consultation plays an invaluable role in a product's validation and optimisation while nurturing confidence among our target audience." Involving customers in the testing phase also enables MacGregor to establish parameters for the programmable logic controller and software on board the vessel, ensuring that GravityVibe executes the complete unloading process as smoothly and intelligently as possible. Ultimately, MacGregor's objective is to enable the fully automated discharge of all kinds of bulk cargo.

Critical to this aim is GravityVibe's self-optimization functionality. Extracting data from built-in sensors, the system 'learns' the characteristics of each material and adjusts its vibration frequency accordingly, achieving optimal flow regardless of the cargo being unloaded and without the need for human intervention. As a result, the operator avoids overworking the system, which in turn minimizes energy consumption as well as operating and maintenance costs.

In the coming months, MacGregor aims to validate GravityVibe's performance with a wider range of materials to identify any operational limitations, making technical adjustments and functional improvements as needed ahead of the system's market launch.



All Images courtesy MacGregor

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Fuel Transition

Propane

How Propane Has Transformed One of America's Busiest Ports for Two Decades and Counting

WBCT in California saw more than 50% savings on fuel costs, 99% lower emissions with propane.

By Jim Bunsey

West Basin Container Terminal (WBCT), operated by Ports America, is a major terminal at the Port of Los Angeles, one of the busiest ports in the world. With four berths and close to 300 acres of space, WBCT is equipped to handle more than one million vessel lifts per year, and it relies on a fleet of 75 propane-powered port tractors to keep containers moving around the clock.

Operational uptime at WBCT is critical, which is why the port invested in propane terminal tractors and infrastructure more than 20 years ago due to propane's affordability, lower emissions, and reliability.

The port began transitioning from Tier III diesel engines to propane in 2003. The initial decision to acquire new propane equipment was due to a planned expansion of the facility. The project's Supplemental Environmental Impact Report (SEIR) required exclusively non-diesel terminal tractors to operate on the new site. After considering the cost, emissions, and performance advantages of propane, as well as the inefficiencies of only being able to use one type of fuel in part of the facility, WBCT decided to convert its entire fleet to propane.

Lower Costs

Over the past 22 years, WBCT cites significant cost savings as a key advantage of switching to propane equipment. Historically, the price per gallon of propane has been half the cost of diesel.

"In 2024, our average price of propane was \$1.66 per gallon, while the price of diesel was \$3.44 per gallon dur-

ing the same time period," said Willy Won, director of engineering at Ports America. "Up until recently, the Federal government also provided an annual Alternative Fuel Tax Credit ranging between \$0.37-0.50 per gallon purchased, which gave us further savings."

Besides the lower cost of propane, the propane tractors themselves can also be significantly less expensive than electric- or diesel-powered models. According to a 2021 study of San Pedro Bay Ports, the purchase price of near-zero-emissions propane tractors averages approximately \$150,000 per unit, while many electric yard tractors average more than double at \$320,000 per unit (not including necessary refueling or recharging infrastructure).

In terms of refueling infrastructure, propane provides even more savings. Propane refueling stations can be installed without extensive redesign, reconfiguration, or operational disruptions. Similarly, WBCT took advantage of maintenance efficiencies. Because propane and diesel engine systems are so similar, the port's existing maintenance workforce didn't need to undergo extensive training to get up to speed on the new propane engines.

Lower Emissions

In a state where air quality regulations continually trend towards more stringent standards, propane has helped WBCT stay ahead of the curve. By eliminating diesel emissions, the port significantly reduces its environmental impact while ensuring compliance with California Air Re-



sources Board (CARB) standards.

“The key positive of switching to propane terminal tractors was eliminating diesel emissions, and over time they’ve become more and more efficient,” said Won. “In the early days, our propane engines from Cummins and Ford reduced NOx emissions to a rate of 0.2 grams per brake horsepower-hour — a huge emissions reduction from diesel. Our newer, ultra-low NOx engines from PSI Engines further reduce NOx emissions to 0.02 grams per brake horsepower-hour.”

These ultra-low NOx port tractors are highly efficient, with NOx emissions 99 percent lower than diesel tractors and 90 percent lower than EPA standards, helping WBCT meet stringent emissions standards while improving air quality for its workforce and the surrounding community of San Pedro, California.

Increased Reliability and Resiliency

Meanwhile, WBCT yard tractors still boast an 8.8 -liter engine with 270 horsepower, 565 foot-pounds of torque, and the capability to maintain all-day performance — hauling cargo at consistent speeds no matter the weight. This gives WBCT the tried-and-true reliability of diesel equipment but without the emissions.

Propane’s resiliency also mitigates the threat of natural disasters. Severe weather and wildfires can knock out electrical grids, making it harder to re-

fuel diesel equipment at the pump and keep electric equipment charged, all of which results in operational downtime. With the ability to store propane long term, access propane where it’s needed most, and even re-boot electrical power with propane-powered microgrids, propane gives fleet managers at ports added peace of mind.

Combine all that with propane’s consistently lower cost per gallon—helping fleet managers better budget fuel costs—there’s a strong case to be made for propane as a reliable, long-term energy source.

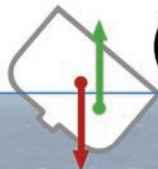
A Sustainable Future for WBCT and Beyond

As WBCT plans for the future, it remains committed to propane power. As its initial fleet of propane terminal tractors approaches the end of its lifecycle, WBCT plans to continue investing in new propane equipment to ensure continued efficiency, cost savings, and environmental benefits.

In recognition of the success it has seen at ports like WBCT, Ports America is strongly considering expanding its use of sustainable, cost-effective propane equipment across its national terminal operations.

The transition to propane highlights a broader movement within the maritime and logistics industries. Ports are seeking cost-effective, low-emission solutions that align with tightened environmental regulations without sacri-

ficing performance. Propane has proven itself, not just as an interim energy solution, but also as a long-term strategy for cleaner, more resilient terminal operations. With its proven success, including more than two decades at WBCT, propane is key to sustainable port operations —delivering cleaner air, lower costs, and greater energy resiliency for years to come.



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Vessels

Saronic Buys Gulf Craft Shipyard

Gulf Craft was sold to Saronic, as that company seeks to accelerate its growth into autonomous shipbuilding. Saronic gains a strategically located shipyard on the Gulf Coast, a 60-year-old shipyard – which has a long history of developing manned and unmanned ships for defense and commercial customers. It will serve as the prototyping and production hub for its medium unmanned surface vessel (MUSV) fleet — starting with Marauder, Saronic’s 150-foot Autonomous Surface Vessel (ASV). Saronic plans to invest more than \$250 million directly into the shipyard, modernizing infrastructure, acquiring new machinery, and updating the facilities to support a rapid capacity ramp-up, enabling Saronic, it claims, to deliver up to 50 unmanned ships per year. Saronic has retained Gulf Craft’s workforce



and expects to create more than 500 new jobs over the next 3–4 years. As part of its long-term vision, Saronic intends to invest over \$2.5 billion to develop Port Alpha — the world’s most advanced shipyard.

Meet Ergon’s M/V Big Valley 325



Ergon Marine & Industrial Supply Inc. (EMIS) has taken delivery of a new crew boat, M/V Big Valley 325, bringing the company’s total number of crew boats to three and increasing its capacity to serve marine operators navigating the Mississippi River. The 47- x 12.5-ft. vessel, powered by twin 300 HP outboard engines, enhances our speed and

efficiency in transporting crew members to vessels and delivering fuel and supplies to customers.

“This expansion is part of our commitment to provide reliable, round-the-clock service to commercial vessels along the Mississippi,” said Chris Maxwell, VP of Marine Operations for EMIS. “The addition of this new vessel also allows us to support fleeting operations at our Memphis location.”

Founded in 1969, EMIS has become a trusted partner for marine operators, providing mid-river refueling, fleeting and supplies from locations in Vicksburg, Mississippi, and Memphis, Tennessee. EMIS offers 24-hour support with a strong focus on safety and efficiency. This dedication to service and operational excellence has earned industry recognition, including the U.S. Coast Guard’s Meritorious Public Service Award.

Eastern Shipbuilding began construction on the USACE’s new medium class hopper dredge, scheduled for delivery in 2027. The hopper can be fully loaded with medium fine sand in less than 45 minutes, and the latest high efficiency dredge pumps, almost halves the desired discharge time. The pump maximizes the operational efficiency and durability of this hopper and is specifically developed for passage of large obstacles. The hopper dredge will be equipped with a diesel-electric propulsion system that meets EPA Tier 4 and IMO Tier 3 standards.

ESG Cuts Steel For USACE Hopper Dredge



NBBB to Build Incat-Crowther Designed Electric Ferries for San Francisco



Incat Crowther

Ice Floe, LLC, doing business as Nichols Brothers Boat Builders (NBBB), won the contract from San Francisco Bay Ferry to design and build a pair of 43-m battery-electric ferries as part of the agency's Rapid Electric Emission Free (REEF) Ferry Program. The new ferries will be capable of transporting 400 passengers and 60 bicycles at speeds of up to 25 knots and will be amongst the most technologically advanced all-electric ferries operating anywhere in the world.

The 142'-1" x 34'-9" Subchapter K vessels will operate at 25 knots, serving central bay routes that connect Oakland and Alameda to San Francisco. The modular propulsion system features four independent azimuth propulsion units, each equipped with a Hydromaster drive, and a scalable energy storage system from Echantia - including MCS charging units, a DC grid, and advanced DC conversion technology, all provided by EPSI Wärtsilä North America.

In a bid to maximize operational efficiency, the vessels will be charged via specifically designed electric charging floats. The charging floats will ensure the vessels can be recharged during passenger loading and unloading. In an added design feature, the floats will serve as the embarkation and disembarkation pathway between the shore-side gangway and the vessels.

In addition, the new vessels are progressively styled with a light, open aesthetic and large windows to enhance the passenger experience. The vessels' spacious

main deck boasts seating for 150 passengers, including six wheelchair accessible spaces, a large kiosk with bar-style seating, three bathrooms and an easy-to-access storage area on the aft deck for bicycles. A large internal staircase and an additional staircase on the aft deck lead commuters to the upper deck, which seats 204 passengers in a spacious, air-conditioned cabin and a further 48 passengers in a covered outdoor deck.

SPECIFICATIONS – INCAT CROWTHER 43

PRINCIPAL DIMENSIONS

Length, o.a.	142' 1" / 43.3m
Length, w.l.	139' 9" / 42.6m
Beam	34' 9" / 10.6m
Draft (prop)	6' 3" / 1.905m
Depth	11' 9" / 3.59m
Construction (Hull)	Aluminium
Construction (Superstructure)	Aluminium
Fresh Water	396 gal. / 1,500 litres
Sullage	396 gallons / 1,500 litres
Crew	4
Passengers (total)	400
Wheelchair accessible passengers	6
Bicycle capacity	60
Speed (Max)	25 knots
Propulsion	4 x Hydromaster Series E
Power	4 x 625kW
Energy storage system	Echantia 1603kWh
Flag	USA
Class / Survey	USCG 46 CFR, Subchapter K, Protected Waters Routes

Deck Machinery

Heavy Haulers

Founded in 1907, **Markey Machine** is the oldest privately-held winch manufacturer in the U.S., and is among the pioneers in electric winching, embracing winches working aboard Active-Front End (AFE) configured boats. Markey has also led the field in constant-tension winch control, coining the term “render/recover” as part of the first prototypes developed in the mid-1990s. Markey further developed render/recover and trademarked its most advanced form, the Markey Asymmetric Render/Recover (TM, trademark symbol) in 2004. Most recently, Markey can be found on a pair of innovative workboats.

McAllister Towing and Transportation Company earlier this year welcomed a newbuild tractor tug to its fleet, Isabel McAllister. Built by Washburn and Doughty Associates, the tug is rated at 6,770 horsepower, boasting an 84 tons bollard pull. It is powered by two, Tier IV Compliant, Caterpillar 3516E engines, with an SRP 490 FP Z-Drives propulsion system supplied by Schottel. The vessel also features two John Deere 4045 AFM85 Tier III, 99 KW generators, with a 72 horse power **Markey DEPCF-52** towing gear.

Late last year, Markey outfitted the RASCAL Tugboat with **Markey Machine’s DEPC-42 Hawser Winch**. The vessel was delivered by Diversified Marine, Inc. to Brusco Tug & Barge, Inc. As the first in the RAscal 2000 D series, the RASCAL is designed to fill an emerging niche in secondary ports. Design by Robert Allan Ltd. and powered by Caterpillar C32 T4 engines driving Berg Propulsion MTA 522 Z-drives, RASCAL sports a bollard pull of 42ST, with an option for 50ST+.

Markey Hawser Winch.



Image courtesy Markey Machine

DMT Marine enjoyed a milestone late last year when it signed a deal to equip a pair of Canadian Navy tugboats. The vessels, built to the RAMPARTS 2400 design by the Canadian shipyard Groupe Océan. Each vessel will be outfitted with a comprehensive set that includes a towing and hawser winch, an anchor mooring capstan, and various deck fittings, all designed to ensure high performance. The equipment will be powered by DMT’s electric and hydraulic control systems.

Rapid naval response in mission-critical situations depends on the reliability of davit systems for efficient launch and recovery of daughter craft in challenging marine environments. And **Vestdavit’s** ongoing deliveries of its innovative PLRH-5000 rescue boat davits for a series of US Navy newbuild refuelling vessels at General Dynamics NASSCO demonstrate its proven credentials in this market segment.

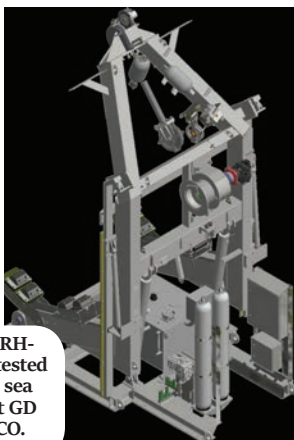
Successful sea trials were recently performed at the San Diego, US-based shipbuilder on the first pair of davits delivered for the USNS Robert F. Kennedy that is one of 10 so-called T-AO oilers being built at the yard, with Vestdavit to deliver a total of 14 davits on seven of these newbuilds - two per vessel. The PLRH-5000 davits are equipped with sophisticated motion compensation and safety features to optimize the efficiency of launch-and-recovery operations for seven-meter RHIBs deployed from these vessels.

Features include shock absorbers for removing peak loads, constant tension for safe and efficient recovery in high sea states, and guiding arms that act as an anti-pendulation device to keep the RHIB steady. The PLRH-5000 is supplied as a fully self-contained and skid-mounted davit that makes it easy and quick to install. It is also certified according to all relevant class standards based on verification of design, materials and safety, while rigorous fabrication testing smooths the commissioning process. Vestdavit is a leading Norwegian supplier of high-specification davit systems with a track record of over 2000 deliveries to most NATO navies.

Vestdavit



The PLRH-5000 is tested during sea trials at GD NASSCO.



Images courtesy Vestdavit

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1 VETUS Maxwell



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<https://webshop.vetus.com/en/products>

2. In-Mar Solutions: Wynn Marine Type C & Type D, HeavyDuty Straight Line Wipers

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www.inmarsystems.com

3. VIKING YouSafe Cyclone Suit

VIKING Life-Saving Equipment launched the first Crew Transfer Vessel (CTV) immersion suit in the world designed for women. The VIKING

2 In-Mar Solutions



YouSafe Cyclone suit is delivered in high-vis GORE-TEX NARVIK, and the female-fit YouSafe Cyclone suit is approved to the same dual SOLAS/MED and CE/ISO standard as the male version and is available in multiple sizes. Common features include compatibility with all standard offshore harnesses, durable Neoprene cuffs and neck seal, retro-reflective piping for increased visibility in dark surroundings, and a maintenance free zipper. Ratios and cut are designed for shorter torsos, and different hip and chest proportions, and for a range of smaller sizes that avoid the risk of snagging.

4. Victor Medalist Utility Kit

To bring more organization and convenience to oxy-fuel cutting, heating and welding in portable applications, Victor, an ESAB brand, introduced the Medalist 350 Classic Utility Kit, which features a durable utility bag. The Medalist 350 Classic Utility Kit comes with Victor heavy-duty G350 oxygen and fuel gas regulators, a heavy-duty Victor combination torch, a 1-101 series size 2 cutting tip, safety goggles and a striker. Available options include ¼ in. x 20 ft. Grade T hoses and a complete range of cutting tips and welding and multi-flame heating attachments.

3 VIKING Life-Saving Equipment



4 Victor



5 Cummins Inc.



5. Cummins Methanol-Ready Engine Earns AIP

Cummins received Approval in Principle (AIP) from DNV for its methanol-ready QSK60 IMO II and IMO III engines, available in power ratings from 2000 to 2700 hp. It validates Cummins' retrofitable methanol dual-fuel solution for the marine market. Following extensive field testing, Cummins plans to launch the retrofit kits post-2028 to align with market demand and infrastructure readiness. Designed for diesel-electric systems, these kits can be integrated with battery technology to optimize efficiency and sustainability. "Using a retrofitable solution dismisses the need for a major vessel overhaul and creates an immediate positive impact on carbon-emissions reduction," said Dawn Wehr, Cummins Executive Director – Strategy, Product Planning & Digital.

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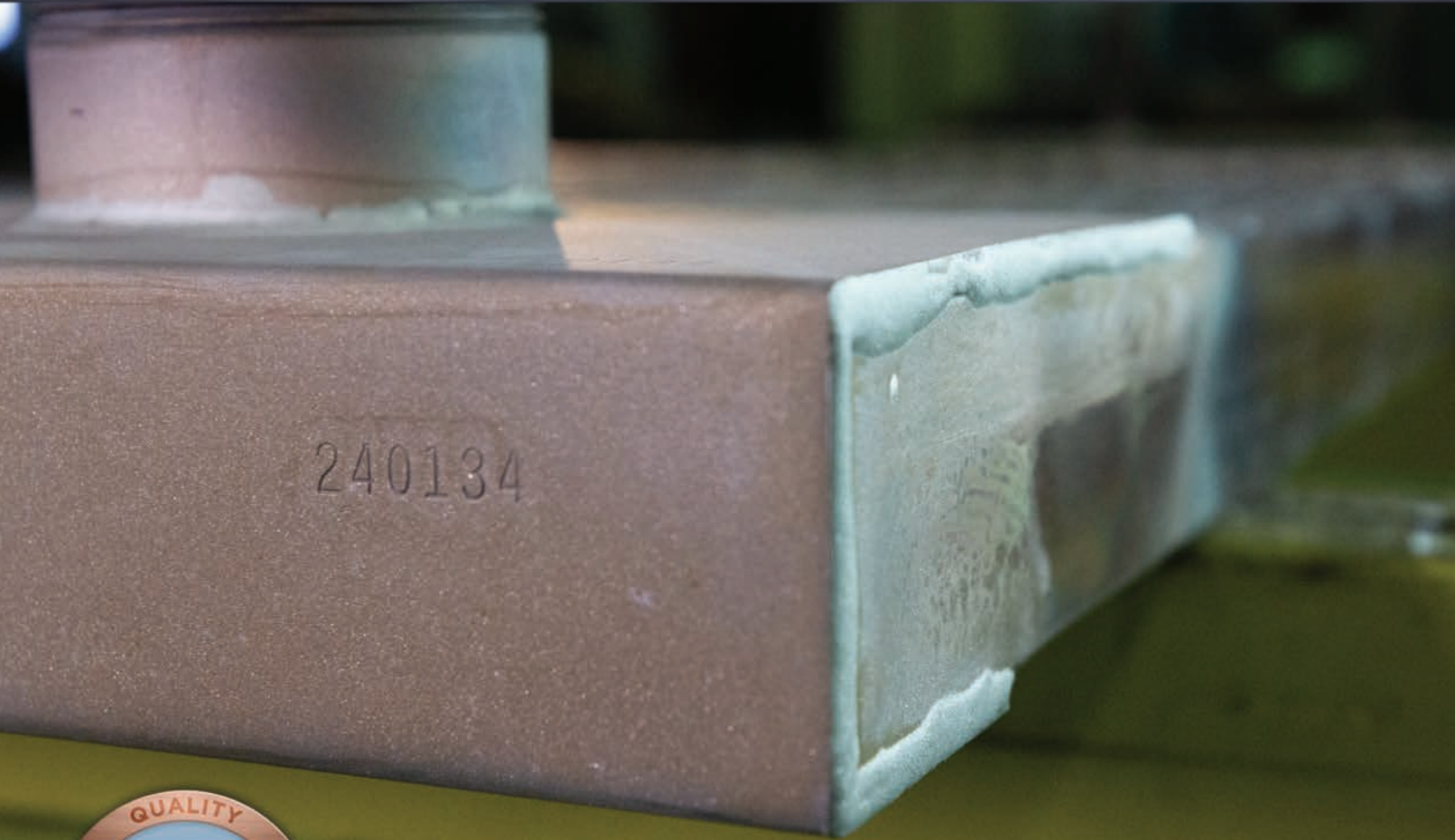
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