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Signals

Cadet's rape allegation brings fresh scrutiny to Sea Year program

By Casey Conley

The U.S. Merchant Marine Academy (USMMA) and Maersk Line Ltd. are facing scrutiny after a female cadet shared a detailed account of her rape aboard a merchant ship during Sea Year training.

The cadet made the allegation in an anonymous post on a whistleblower website that includes other stories of harassment and sexual assault from men and women during Sea Year.

In the post, the victim describes in detail how she and another Sea Year cadet were goaded into drinking on a Maersk Line cargo

ship. The victim awoke the next morning naked with blood on her sheets and hazy recollections of her sexual assault. She recalled her supervisor, the ship's first assistant engineer in his 60s, committing sexual acts without her consent.

"I was in a state of total shock," the victim, then 19, wrote in the Maritime Legal Aid & Advocacy website post. She is now a senior at USMMA.

"For at least 20 minutes I sat there on my bed just looking at everything, looking at the scene, looking at my wet clothes, trying to piece together a timeline, and

trying to process the fact that I had actually been raped," the post continued. "I was completely terrified. I was the only girl on the ship, and we had about two weeks until we even reached the next port."

Professional Mariner could not independently verify details of the incident, and multiple attempts to reach Maritime Legal Aid & Advocacy founder J. Ryan Melogy were not successful.

The name of the ship on which the incident occurred has not been publicly released, but Maersk has identified the vessel



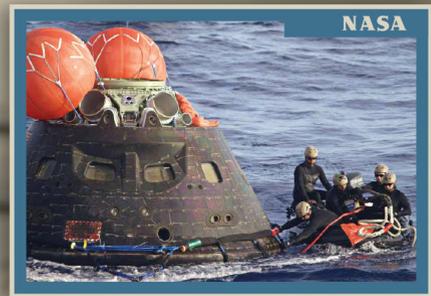
Cadets at the U.S. Merchant Marine Academy gathered in 2019. A female cadet's rape allegation has again raised concerns about Sea Year.

USMMA



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and is investigating the allegation. The Danish shipper said it is cooperating with USMMA, labor unions that represent the officers and crew, and federal authorities.

“Maersk Line Ltd. has strict zero-tolerance policies regarding alcohol use and sexual assault/sexual harassment on its vessels in full compliance with U.S. government regulations,” the company said in a prepared statement. “As part of the investigation process, the master, chief engineer, first assistant engineer and two junior engineers have been suspended pending the outcome of the investigation.”

Maersk spokesman Tom Boyd confirmed the suspended crewmembers worked with the cadet. The men were not named publicly.

USMMA, located in Kings Point, N.Y., referred the victim’s post to the Coast Guard Investigative Service on Sept. 28, a day after it appeared online. The academy reiterated its zero-tolerance policy for sexual harassment and assault, and said it is ready to provide support to the victim and other sexual assault survivors.

“As we determine the appropriate steps required to increase and ensure the safety of USMMA students, we pledge to listen to and work closely with the entire USMMA community including students, parents and alumni,” the academy said in a statement.

Senior officials at the U.S. Department of Transportation and the Maritime Administration (MarAd) made resources

available to the victim and the broader Kings Point community. In a statement, the agencies said they are working to determine “the appropriate steps required to increase and ensure the safety of our midshipmen.”

“We especially want our students to know that we value their voices and want to make sure they are part of any decisions that could potentially affect our Sea Year training program,” the statement said.

These are not the first allegations of sexual assault occurring during Sea Year. The program, which dates to 1942, pairs two cadets and places them aboard U.S.-flagged merchant or government ships during their sophomore and junior years. MarAd in 2016 suspended Sea Year for about six months following reports of cadets facing sexual harassment, assault, bullying and hazing while on ships.

Separately, USMMA officials continue to work to change the culture on the Kings Point campus. Multiple reports from the mid-2010s identified longstanding and widely recognized problems related to sexual harassment and assault.

A culture audit of Kings Point cadets released in late 2016 found that the campus climate was negatively affected by behavior cadets bring back to the academy after Sea Year. “Their observations were that when midshipmen return to campus after working and living with more freedom and responsi-

bilities on ships, some return with an increase in behaviors related to alcohol consumption, smoking, lewd talk and lack of respect for women,” according to the report prepared by the Logistics Management Institute.

Claims made in the anonymous post by the Kings Point victim aligned with those observations. The cadet recalled being subject to demeaning and crude comments on the Maersk ship, as well as overt romantic passes from the first assistant engineer well before the assault.

After the assault, she said, he again made a pass at her, and when rebuffed, said nobody would believe her story. As the only female sailor on the ship and a relative newcomer, those words resonated. She confided in her male Sea Year partner but told nobody else, including the captain.

“Back in my room I decided that the only thing I could do was to tough it out. No one was going to believe me, and toughing it out was the only option I felt like I had,” she wrote.

“The next 50 days were horrible,” the post continued. “I had to continue working for the gross man who raped me, had to see him all the time, every day. And every man who had been in that room drinking that night knew that something had happened to me.”

The cadet returned to campus and became a victim advocate. She has since learned of at least five women out of 50 in her class who

said they were raped during Sea Year, and at least 10 women total on campus.

The Maritime Legal Aid & Advocacy website mostly contains stories from women of abuse and harassment while working on ships. But several male sailors recalled harassment, unwanted sexual touching and other abuse during Sea Year and on the USMMA campus.

Ally Cedeno, the founder of the nonprofit Women Offshore Foundation, believes most female mariners have faced some form of sexual harassment or worse while at sea. There is no reliable data showing how common it is, she said, because incidents go unreported.

One reason is because many incidents happen with alcohol present, which could lead to sanctions against the victim solely for reporting circumstances of the assault.

“When alcohol is involved, especially as a mariner, you don’t want to worry about losing your license or have to admit to being intoxicated or incapacitated. That is a major factor for some cases,” Cedeno said. “As an industry, we need to learn how to better support victims and provide some sort of amnesty so individuals feel they can report their abusers without putting their career or license at risk.”

Other changes also could have a meaningful impact, according to Cedeno, a 2008 USMMA graduate who is licensed as a chief

mate of unlimited tonnage and a dynamic-positioning operator. One is to believe women when they make allegations of this kind. Another is to develop a workplace culture where employees can trust

that reports of this nature will be taken seriously.

As of press time, neither MarAd nor USMMA had made any decisions impacting the future of Sea Year.

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Hydrogen fuel cells approach maritime industry milestone

By David Tyler

Two vessels that will operate on the West Coast are pioneers in the maritime industry's push to adopt zero-emissions propulsion.

groundwork for hydrogen fuel within the maritime industry. One from 2016 concluded it was technically possible to build a high-speed

enough for two days of operation. The passenger ferry can go 22 knots with a power boost from 100-kWh batteries, according to ZEI. Two 400-hp shaft motors built by BAE Systems provide the propulsion.

The placement of the fuel cells in the ferry was not a challenge. The hydrogen modules don't have to be located next to each other, according to Danny Terlip, lead engineer for ZEI. However, for *Sea Change*, there are 12 30-kW modules located in a single room on the forward deck. The hydrogen fuel tanks are on the roof of the ferry behind the pilot house.

Hydrogen fuel cells work like batteries, but they do not need recharging. A fuel cell has two plates stacked together, with an insulator in between, Terlip said. One plate is a negative electrode and the other a positive electrode. Hydrogen goes through the negative electrode, called the anode, and oxygen goes through the positive electrode, called the cathode. The insulator between the plates has a catalyst made from an alloy with platinum, according to Terlip.



All American Marine launched *Sea Change* in August. It will be the first commercial ferry powered by hydrogen fuel cells.

All American Marine

In mid-August, All American Marine launched the 70-foot *Sea Change*, a 75-passenger ferry powered entirely by hydrogen fuel. It will operate in San Francisco Bay, becoming the first commercial ferry in the world powered by hydrogen fuel cells, according to Zero Emission Industries (ZEI), which designed the vessel's powertrain.

And in July, the California Legislature approved \$35 million to design and build a hybrid hydrogen-fueled research vessel. It will replace the 40-year-old vessel *Robert Gordon Sproul* at the Scripps Institution of Oceanography at the University of California, San Diego. Designing and building the 125-foot vessel, which will integrate fuel cells alongside a diesel-electric power plant, will take about three years.

Two studies, both led by Sandia National Laboratories, laid the

hydrogen-powered ferry. The other, released in 2018, determined a hydrogen-powered research vessel was feasible.

Sea Change is completely powered by hydrogen fuel. The fuel cell power package was developed by ZEI. The fuel cells are made by Cummins Hydrogenics with 360 kW of capacity. The hydrogen storage tanks, made by Hexagon Purus, can hold 246 kilograms of compressed gas,

The Scripps Institution of Oceanography is building the first U.S. research vessel powered by hydrogen.

Scripps Institution of Oceanography



This process causes a reaction that produces electricity, water and heat.

Bruce Applegate, head of ship operations at Scripps Institute of Oceanography, has worked on the hydrogen-powered vessel concept since 2014. Collaborators include Sandia Labs, DNV Maritime and naval architects at Glosten. Although an entirely hydrogen-powered vessel was considered, it was not possible to store the amount of fuel needed for the 2,500 nautical miles covered by some trips. With the hydrogen-hybrid propulsion system, the vessel still produces zero emissions with 75 percent of trips projected to sail

only using hydrogen fuel, according to Scripps.

Initially, loading the fuel was a challenge. “A big thing we learned on the first study was that we had no idea how to bunker these things,” Applegate said. They thought a multi-modal terminal would have to be built, costing millions of dollars. But Applegate said that land-based hydrogen systems in California are replenished using trucks. Refueling the research vessel could be done just as it is now for diesel fuel. “We just drive a truck out onto the pier, throw a hose over and bunker it that way,” he said.

The bunkering solution for *Sea*

Change was equally simple. “We put all of the bunkering hardware on the boat, and then we can, anywhere there’s a truck, just refuel,” Terlip said. “And that allows us to meet any fueling source wherever they are and refuel.”

Although all-electric or hybrid electric-diesel vessels are the latest trend, Ron Wille, All American Marine’s president and CEO, said batteries that now provide all-electric power are too heavy. “My analogy has been, when you have a battery-powered boat, you can neither go far nor go fast,” he said. “A hydrogen-powered vessel, in theory, has the ability to go far and fast.”

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Hurricane Ida dealt blow to south Louisiana maritime hubs

By Guthrie Scrimgeour

The Gulf Coast is still recovering from Hurricane Ida, which caused significant damage to the maritime and energy infrastructure across south Louisiana.

Ida made landfall on Aug. 29 in Port Fourchon, La., as a Category 4 hurricane. Vessels that rode out the storm in port registered gusts as high as 228 mph, according to Thad Angeloz, a spokesperson for the Greater Lafourche Port Commission, which operates Port Fourchon.

“The damage in the port, while severe, was not catastrophic,” Angeloz said in mid-October. “There are structures that are still intact, and commerce continues to move forward.”

He estimated 75 percent of the port will be fully operational by Oct. 22 but said the remaining 25 percent will take longer. “It is going to be an ongoing recovery for some time.”

Hurricane Ida, already one of the strongest storms in United States history, is projected to be one of the most expensive. Although estimates vary, total damage is projected to approach \$100 billion. It also caused power outages to more than 1 million residents and thousands more businesses.

The region’s shipbuilding industry also took a hit. Gulf Island Fabrication in Houma announced Sept. 28 that full operations had resumed — a full month after the storm. Bollinger Shipyards’ facilities in Lockport, Port Fourchon, Larose and Houma also were significantly



U.S. Coast Guard

Hurricane Ida impacted many commercial vessels, including towboats and barges left aground along the Mississippi River.

damaged.

“Our community, like many across south Louisiana, took a direct hit from Hurricane Ida — in many regards, this storm was worse than Katrina,” Ben Bordelon, president and CEO of Bollinger Shipyards, said in a prepared statement.

The region’s offshore energy infrastructure also sustained damage as a result of the storm. As of late September, the Coast Guard had assessed 2,495 reports of pollution, and it was actively supervising mitigation efforts in 312 cases.

The National Oceanic and Atmospheric Administration (NOAA) issued a total of 55 oil spill reports in the two weeks following the hurricane, up from only five in the two weeks preceding the storm.

As of late September, the federal Bureau of Safety and Environmental Enforcement reported workers still hadn’t returned to 32 platforms, and that about 16 percent of the Gulf’s oil production and 24 percent of its gas production remained shut down. Those numbers have since improved.

Shipping activity at the Port of New Orleans resumed within days of the storm, even as much of the city remained without power. Break-bulk cargo operations resumed Sept. 1, and container cargo activities resumed Sept. 7. The port’s terminals and industrial real estate escaped serious damage, according to a port spokeswoman.

Numerous commercial vessels sustained damage during the storm, including towboats and barges that sank or were carried onto dry land. Data on the number of damaged vessels could not be found, although

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Coast Guard spokesman Jonathan Lally said the number of vessels damaged during Ida was similar to that of other major hurricanes.

A primary focus for federal responders — which include the U.S. Coast Guard, U.S. Army Corps of Engineers and U.S. Navy Supervisor of Salvage and Diving — has been clearing debris from Bayou Lafourche, the Houma Navigation Canal and other nearby waterways. As of late September, 85 obstructions were identified in the Bayou Lafourche channel.

The U.S. Coast Guard additionally reported that 408 navigation aids had been damaged by the

storm and that, as of late September, 90 percent of these aids had been repaired.

As bad as conditions were across much of south Louisiana, few places were as badly hit as Lafourche Parish, home to Port Fourchon, Golden Meadow, Galliano and Larose. Angeloz, the port spokesman, said nearly every building in the parish sustained some level of damage.

That includes buildings within the port itself, which directly and indirectly employs thousands of people, many in the oil and gas industry. Power wasn't fully restored at the port until early October, and water was not back online until Sept.

20 — both of which complicated the recovery.

Even so, some port tenants returned to work nine days after the storm using industrial generators for electricity. The port itself was operational by late September.

"Things are moving and trending in a good direction," Angeloz said, adding that the resiliency of the port, its tenants and people who work there have contributed to the recovery.

"In south Louisiana, we take these punches and we dust ourselves off and get back to work," he continued. "We had to get back online because the rest of the country depends on what we do down here."

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Mass. offshore wind tender promises maritime industry boost

By Casey Conley

Massachusetts regulators and utilities are vetting competing proposals from two offshore wind developers to supply clean energy to New England ratepayers.

Both proposals, offered by Mayflower Wind and Vineyard Wind, would bring significant benefits to the maritime industry, such as port redevelopment and new vessel construction. All told, the plans promise new jobs and hundreds of millions of dollars in new investment.

Those promised economic benefits are contingent upon one, or both, companies reaching agreement to sell power to the state's electrical utilities. Pending a decision, likely in

Crowley Maritime is preparing to build an offshore wind port in Salem, Mass. in support of Vineyard Wind.



Crowley Maritime



Mayflower Wind

Mayflower Wind will partner with Gladding-Hearn Shipbuilding on a new CTV.

December, both wind companies are making their cases publicly.

“Like the other bidders in the process, we share some information about the benefits included in our bid so residents and businesses can understand how the project could positively impact their lives,” Dan Hubbard, Mayflower Wind’s director of external affairs and general counsel, said in a statement. “We believe when it comes to these kinds of technology development and

design contracts, it is appropriate, even at this early stage, to get information out in the open.”

Earlier this year, Massachusetts opened bidding to offshore wind companies willing to supply up to 1,600 megawatts of electricity from offshore wind. It was the third offering of its kind in Massachusetts. Vineyard Wind and Mayflower Wind, each of whom won previous bids to supply power from offshore wind, were the lone bidders.

Mayflower Wind is a collaboration between Shell New Energies US and Ocean Winds. It would build the turbines in federal waters some 30 miles south of Martha’s Vineyard.

Vineyard Wind is a partnership between Avangrid Renewables — a subsidiary of the Spanish utility Iberdrola — and Copenhagen Infrastructure Partners. It proposes developing an offshore wind site some 20 miles south of Martha’s Vineyard.

Vineyard Wind’s bid now under consideration before Massachusetts regulators is called Commonwealth Wind. It is separate from the company’s 62-turbine Vineyard Wind 1 project that is permitted by the federal government and tentatively scheduled to begin producing power in 2023.

industry signals

Both companies have promised significant maritime investment in Massachusetts if either of their proposals are chosen to supply more electricity to state residents and businesses.

Mayflower Wind has pledged to spend up to \$81 million in support of its project. The money would be used for training, education and infrastructure. Additionally, the company proposes building a wind turbine operations and maintenance port in Fall River and invest in power interconnection at nearby Brayton Point.

And in mid-October, Mayflower announced a partnership

with Gladding-Hearn Shipbuilding of Somerset, Mass., to build a hybrid crew transfer vessel (CTV) to service the wind farm. The Jones Act-compliant CTV “will proceed if Mayflower is awarded a contract under the latest Massachusetts procurement for offshore wind,” Mayflower said.

Vineyard Wind, meanwhile, has partnered with Crowley Maritime to develop a 42-acre offshore wind port in Salem, Mass., north of Boston. It would be the state’s second purpose-built wind port after a similar project in New Bedford. The port deal is contingent upon Vineyard Wind’s winning a share

of the current power supply tender. Supporters say the Salem port redevelopment would create up to 900 new jobs over five years.

The Massachusetts evaluation team consisting of regulators and utility officials could have a decision on the power purchase agreement in mid-December. One or both companies could ultimately win contracts, and both proposed multiple packages for regulators to consider.

The power purchase agreement is one step in a lengthy process to develop offshore wind. The winning companies would still need federal permits to build the turbines, which will likely take a year or longer.

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Maine eyes floating wind turbines despite fishing industry objections

By Nick Keppler

The state of Maine and multiple private partners are collaborating on a floating wind turbine demonstration project in the Gulf of Maine's deep waters.

Fishing groups in the state known for its lobster catch are



Maine is developing wind turbines with a floating concrete base.

University of Maine

opposing the plan, which aims to gain new insights into floating wind turbine technology.

“It’s really helpful to think of the research array as a laboratory at sea for offshore wind,” Anthony J. Ronzio, deputy director of the Governor’s Office of Policy Innovation and the Future, told *Professional Mariner*.

The state will measure the impact of floating offshore wind projects on the environment and marine life while gaining insight into what on- and off-shore support such arrays need, Ronzio said.

“[We will] research what offshore wind energy on a very small scale would look like in the Gulf of Maine,” he said. The project will explore “how it would impact and coexist with fisheries, how it would

impact the marine environment and [how] to do this in a responsible way.”

The state filed an application with the Bureau of Ocean Energy Management (BOEM) to station a floating platform, dubbed the Gulf of Maine Floating Offshore Wind Research Array, in federal waters. It will have up to 12 turbines with a capacity to generate up to 144 megawatts. The power will reach the mainland electrical grid through an underwater cable. The array is a project of New England Aqua Ventus, a joint venture between Mitsubishi subsidiary Diamond Offshore Wind, Diamond Generating Corporation and RWE Renewables. The state intends to use floating platform technology developed at the University of Maine (UMaine).

Prior to development of the full 12-turbine array, New England Aqua Ventus plans to team up with UMaine to put another single-turbine platform in Maine waters in 2022 or 2023. It would be an exploratory project utilizing a \$150 million grant from the U.S. Department of Energy.

Plans for constructing the turbine are still in the early stages, and it’s possible foreign ships will be used, according to a representative from New England Aqua Ventus. Floating structures are not subject to the Jones Act, giving New England Aqua Ventus expansive legal permissions to use foreign vessels. However, the group plans to

employ mostly U.S. boats for regular service and maintenance of the array, the spokesperson said.

The Maine project differs from existing U.S. wind turbine projects, and the large-scale sites operating in European waters, because the turbines would not be anchored to the seafloor.

New England Aqua Ventus plans to use floating concrete developed at UMaine. The material is made to be less dense than water, allowing it to stay on the surface.

Researchers at the University of Maine, aware of the unique complications of the state’s deep waters, have been testing floating wind projects for more than a decade. In 2013, they launched a floating platform holding a single turbine, at one-eighth the scale of a standard turbine, and used it to deliver the first-ever electricity from a floating rig to the U.S. power grid.

Floating wind infrastructure has several advantages, according to Habib Dagher, executive director of the University of Maine’s Advanced Structures and Composites Center. “The visual impact is less,” he said. “You find (a suitable place) where you can put it. You can pick them up if you want them somewhere else 50 years later. There are less environmental issues. With fisheries, there are less issues.”

As the floating turbine project moves forward, Maine officials

approved a 10-year moratorium on new offshore wind projects in state waters. The proposed 12-turbine floating array, proposed for federal waters, is not subject to the state ban. And the single turbine planned for state waters was approved before the moratorium took effect, making it exempt. Federal waters begin three nautical miles offshore.

Passage of the moratorium highlights concerns raised by the state's powerful fishing industry, which is largely comprised of lobstermen. In 2020, the state's more than 4,000 licensed lobstermen caught more than 96 million pounds of lobster,

and the industry generates \$1.6 billion a year in economic activity.

Virginia Olsen, a commercial fisher and a representative for Maine Lobstering Union-Local 207, said fishermen generally oppose offshore wind. In the case of the research array, she said, "we have questions we need answers to."

In March, as officials surveyed the seabed for the placement of a cable to connect to the electrical grid for Aqua Ventus' single turbine, 80 lobster boats formed a parade in Monhegan and Boothbay harbors to protest the project. A month later, fishing industry

workers also demonstrated outside the Augusta Civic Center where legislators met during the Covid-19 pandemic.

The commercial fishing industry fears the offshore wind infrastructure will interfere with their navigation systems, the migratory patterns of lobsters and the ability of the Coast Guard to perform search and rescue missions, Olsen said.

Dagher acknowledged fishing groups have raised important questions about offshore wind. However, he said, data and research collected from the floating turbines could provide some useful answers.



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Bouchard Transportation assets divided to resolve bankruptcy case

By Bill Bleyer

Any future for Bouchard Transportation evaporated this summer when a bankruptcy judge approved a plan to sell the company's assets.

Judge David Jones of the U.S. Bankruptcy Court for the Southern District of Texas on August 26 approved a plan to divide the Long Island company's assets between two buyers to give partial recovery for creditors.

Efforts by Bouchard to develop an alternate plan allowing the company to retain some assets and stay in busi-

ness failed to come to fruition.

The judge ruled after the creditor committee negotiated a settlement with Wells Fargo, which held liens against some of Bouchard's tugs and barges. Court documents indicate Wells Fargo agreed to subordinate a \$20 million claim and contribute \$50 million toward settling the bankruptcy case.

The creditors' committee told the judge the settlement with Wells Fargo allowed the possibility of unsecured creditors receiving distributions. Those creditors objected previously,

arguing the plan did not provide sufficient means to settle their claims.

Jones overruled the one remaining objection from former CEO Morton Bouchard III. His lawyers objected to the language of the releases, saying it could hurt their client's defense against possible claims against him.

The plan presented to the court earlier in August divided the assets between two bidders. Wells Fargo was part of one group that would buy the vessels on which it had liens. JMB Capital Partners, which provided debtor in possession financing




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during the bankruptcy proceedings, got to purchase the remainder of the fleet. Their combined bids totaled more than \$245 million.

Under the plan approved by the court, a financial group led by Wells Fargo would acquire eight tugs and 10 barges. Wells Fargo through Rose Cay submitted a bid of \$130 million with \$100 million being a credit against debts due to the bank on the assets with only \$30 million in cash.

Meanwhile, 17 tugs and 12 barges would be sold to JMB. It offered \$115.3 million, of which \$20.8 million would be cash with the remainder being a credit against the debtor-in-possession financing JMB

provided to Bouchard at the beginning of the bankruptcy process.

In October, Seattle-based Centerline Logistics, one of the largest marine petroleum transportation companies in the country, announced its acquisition of several former Bouchard articulated tug and barge (ATB) units. One of the ATBs, renamed *Robin Marie* and *Joni Lee*, was built in 2016. It becomes Centerline's largest and most advanced ATB. The unit is 718 feet long with a capacity of 260,000 barrels.

"With the added vessels' carrying capacity, operating capabilities and safety systems, we have greatly enhanced our ability to quickly and

efficiently serve our growing markets," Matt Godden, president and CEO of Centerline Logistics, said in a prepared statement.

Bouchard declared bankruptcy in September 2020 and proposed reorganizing its operations. It had \$230 million in debt as the Covid-19 pandemic worsened financial problems, including those resulting from a fatal Texas barge explosion in 2017.

But in the spring, the company said it had not been able to find a partner and would sell its assets. The move signaled the end for a company that dates to 1918 and was once the nation's largest independently-owned petroleum barge company. •

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Port of Los Angeles

No quick fixes seen for shipping bottlenecks, port congestion

by Rob Laymon

From the hills of San Pedro, Calif., you can see the problem firsthand: Towering cranes unload containerships at every available berth, and stacks of containers swell in the freight yards.

Loaded containerships occupy every available anchorage inside and outside the long

seawall. The number of ships waiting to unload in recent weeks at the adjacent ports of Los Angeles and Long Beach has exceeded 50, up from an average of 17.

That view from San Pedro doesn't show the ships now beyond the anchorage, where ships have been in a controlled drift while unloading takes

The Port of Los Angeles is struggling to address a cargo backlog with multiple causes but no easy solutions.

place in the port. As of mid-October, some 28 loaded ships drifted west of Catalina Island on a course roughly parallel with the coast, waiting for a berth.

Similar crowding is happening in Seattle, New York and Savannah, Ga. Meanwhile, empty containers that could be put in ships and sent back to their origins are sitting in the freight yards.

Although the service and manufacturing sectors reported growth for the 16th consecutive month, transportation bottlenecks have disrupted the supply chain like no other time in modern history. That leaves great disparities in inventory between customers and manufacturers. Prices are increasing and backlogs are growing.

The causes of this disturbance are numerous and dis-



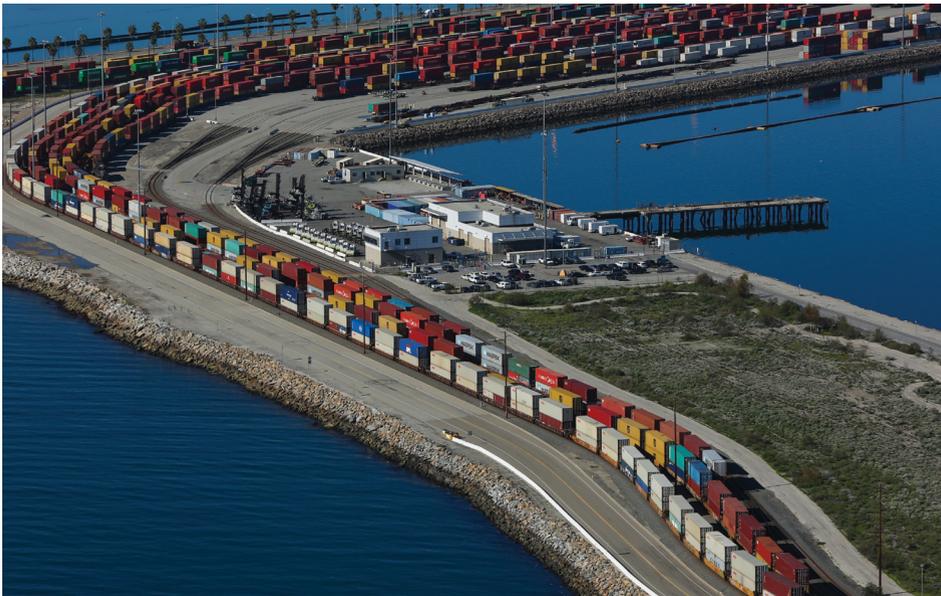
Port of Los Angeles

tant, but the master culprit lives close to home: consumer demand.

“What you’re seeing is the American consumer’s strength on display every day,” said Gene Seroka, executive director of the Port of Los Angeles. “We are buying more cargo than ever, and we are in the midst of our seasonal products as well as year-end holidays all converging at once.”

freight traffic from countries that produce these goods.

“A year ago, people started buying stuff because they were hunkered down at home,” said Kip Louttit, executive director of the Marine Exchange of Southern California. “They were remodeling their homes and putting in patio equipment. At the same time the supply of workers was down because of Covid,



Port of Long Beach

A quickly recovering economy combined with government stimulus put more cash into consumers’ bank accounts. They have spent that money on TVs, automobiles, home furnishings, computers and all manner of products that fit into a shipping container.

Covid-19 shut down many other ways of spending money, such as travel, vacations and going out to dinner. The result was a surge in

Shipping containers loaded on railcars near Pier T within the Port of Long Beach.

so things became slow.”

Increased wait time for goods drove up prices, which in turn brought more traffic as buyers sought lower costs by ordering larger, and earlier, shipments — creating a vicious cycle.

Problems with the supply of raw materials in the manufacturing nations delayed the production of ordered goods, which further slowed delivery times. The temporary shutdown of some terminals in

Port of Virginia avoids major container backlogs

Dozens of ships are waiting for berths off Los Angeles.

Puget Sound is so overloaded, rarely used anchorages have filled up.

And now, the cargo backlogs are spreading to the East Coast ports of Savannah and New York-New Jersey.

The Port of Virginia, meanwhile, continues to operate normally despite similar surges in cargo that have bedeviled other ports.

Joe Harris, spokesman for the Norfolk-area port, attributes the relative ease of shipments to the so-called Virginia Model, in which the port owns and operates its terminals. When a problem arises, port leaders can step in to address it quickly.

The ports of Los Angeles and Long Beach, by contrast, lease their terminals to private companies.

Competition between terminal operators and other logistics hurdles can stymie the kind of cooperation that might otherwise ease the shipping backlogs. “The way that is set up it can prevent collaboration,” Harris said. “That is nobody’s fault, but it is just how it is set up.”

Norfolk’s two primary terminals, like other busy ports, have faced their share of challenges over the past year, and worker shortages are a problem nationwide. But the port has tools to respond quickly.

For instance, when trailer chassis availability tightened, the port opened Saturday hours to facilitate their return.

“Outside of paying some people to work on Saturday, there wasn’t a big challenge to it,” Harris said.

Norfolk also benefits from an \$800 million port optimization project completed about 18 months ago. Those upgrades came at an optimal time, as port officials don’t expect cargo volumes to fall anytime soon.

—Casey Conley

Vietnam and Ningbo, China, did not help matters.

The shortage of truck drivers needed to move goods from ships to freight yards, and from freight yards to warehouses, is another factor. This shortage has been blamed by some on a disinclination to work due to unemployment money. But officials say the situation does not precisely correspond to supply chain

disruptions.

“We’ve got a trucker shortage nationwide, with a 20% attrition rate,” Seroka said. “We’ve got to show folks that this is a profession to attract, recruit and retain drivers.”

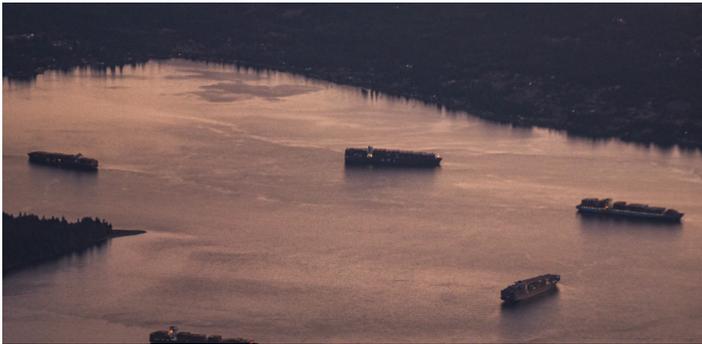
The results of these interconnected factors are crowds of ships at many of the country’s major ports and packed freight yards containing towers of empty containers. This

situation likely will persist into next year and possibly longer.

“Our estimate is certainly into 2022,” said Phillip Sanfield, spokesman for the Port of Los Angeles. “I’ve heard retailers saying their supply inventories are very low, so we expect to see replenishment in supply after the holidays. But we expect a robust import surge to continue at least into the first quarter of 2022.”

Nobody is calling this pace the new normal, but it might start to feel that way the longer the situation continues.

“We have been doing 900,000 TEUs a month,” said Sanfield, referring to twenty-foot equivalent units. “That used to be a strong month during peak season, but now we are averaging that for a year-plus. And



Port backlogs have increased the number of containerships waiting in Puget Sound anchorages.

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that's all on the import side. Exports are plummeting."

The Port of Long Beach has already begun round-the-clock operations to unload ships. And, as President Biden announced recently, the adjacent Port of Los Angeles will join it — or try to.

Opinions differ on whether 24-hour operations will ease the bottleneck, as participation in the plan was slow to begin. A pilot program that allowed truckers to pick up cargo between 3 a.m. and 7 a.m. Monday through Thursday attracted no drivers during the first two weeks of its operation.

Cargo is sitting longer than ever before in terminals, and the Port of Los Angeles also began a program to more effectively "push" that freight

from the yards by urging the owners to come and get it. About half the products on L.A. docks are sitting five days or longer, and one-quarter of those containers linger 13 days or more.

"Right now, it's more of a pull system when it comes to cargo on the docks," Sanfield said. "Importers come and pick up cargo at their discretion, and a lot of cargo has been sitting. So, we are working with cargo owners and trying to get them to commit to come and take it."

Major retailers like Home Depot, Costco and Walmart, which had begun to charter their own cargo ships, have promised to remove from freight yards the cargo that has slowed freight operations. Expedited

trucker licensing in states with large container ports has been floated as a potential solution.

Another possibility advanced by the Pacific Merchant Shipping Association is more precise scheduling of arrival times for ships. This would be accomplished by better communication between ships and marine terminal operators, so ships could slow steam their way to a destination and arrive closer to their scheduled slot

"It used to be that, upon arrival, containerships always went straight to their berth," said Capt. John Veentjer, executive director of Marine Exchange Puget Sound. "They never even went to anchor until this year, when we started having this backup." •

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The graphic features a blue background with white text. It includes images of a USCG license, a red book titled 'MERCHANT MARINE CREDENTIAL', and a white document with 'SUSPENDED' written on it. Below the text is the MOPS logo, which consists of a stylized anchor and the text 'MOPS PROTECTING PROFESSIONAL MARINERS SINCE 1935'. At the bottom, there are social media icons for Facebook, Instagram, and LinkedIn, and a photograph of a large cargo ship in a harbor.

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Electric tour boats create new tradition for historic Niagara Falls operator

Story and photos by Casey Conley

James V. Glynn, above, passes Bridal Veil Falls and the larger American Falls on its way back to the dock. The iconic Horseshoe Falls is upriver. Right, poncho-clad passengers gaze toward American Falls.

On a drizzly summer morning, Capt. Kaitlynn McHenry guided Maid of the Mist's *James V. Glynn* off the dock in Niagara Falls State Park. Instead of rumbling engines, the vessel got underway with a subtle *whoosh*.

The 90.5-foot catamaran *James V. Glynn* and its sister vessel, *Nikola Tesla*, are the first zero-emission tour boats operating in the United States. Electricity generated by nearby hydroelectric stations charges batteries inside each hull, powering electric motors paired with azimuthing stern drives.

Shifting from diesel engines with conventional props and rudders to electric propulsion

was a challenge for the crew. Getting the hang of azimuthing drives was another.

"We had these big wooden wheels on the older boats. These are nothing like that — it is a totally different motion," McHenry said of

the hand-held controls for each drive. "The maneuverability and responsiveness that come out of these drives is really impressive."

A native of upstate New York, McHenry is the first female captain in Maid of the





Mist's 136-year history. She joined the company more than three years ago after working for other New York tour operators and maritime companies.

Mate James Strassburg accompanied her in the wheelhouse on a dreary mid-August morning. The two alternated at the controls during each 20-minute round trip. After pushing off the dock in the Niagara River, McHenry steered upriver toward the rugged American Falls, barely 500 feet east of the border with Canada.

Currents pushed on the bow as water rushed over the falls and into the Niagara River. Further west, currents nudged the stern. Water levels in the river can vary significantly, and changes in flow impact currents below the falls.

"We are getting pushed and shoved all over the place the entire trip, and when we

get into the horseshoe it is just confused water coming from all angles," she said, referring to Horseshoe Falls. The majestic U-shaped waterfall is also known as Canadian Falls for its location almost entirely across the Canadian border.

Mist blanketed passengers clad in blue ponchos as McHenry steered into the iconic horseshoe. She slowed almost to a stop as the bow faced directly into the falls. Cormorants dove and frolicked nearby as the vessel held position against a veil of white water.

"Depending on the water levels, we are anywhere from 300 to 500 feet from the actual falls," she said later. "Although it seems like we are a lot closer. When I tell people that, they are blown away. They feel like they are really dangerously close."

After nearly 90 seconds in the shadow of Horseshoe Falls, she spun *James V. Glynn*

VESSEL SPECIFICATIONS

Owner/Operator: Maid of the Mist Corporation
Designer/Builder: Propulsion Data Services/Burger Boat Co.
Dimensions: 90'6" x 34'4" x 5'9"
Mission: Tour vessel
Crew size: 6

Hull
 • Aluminum catamaran

Performance
 • Maximum speed: 11 knots
 • Service speed: 6-8 knots

Propulsion
 • Electric propulsion motors: (2) Ramme Electric Machines, 200 kW
 • Thrusters: (2) Veth VL-200E
 • Bow thrusters: (2) 60-KW Naiad Dynamics Model 20 Right Angle Thrusters
 • Batteries: (2) 158 kW Spear Power Systems lithium-ion batteries

Navigation/Communications
 • Furuno Navnet TZTouch 15" display
 • Motorola VHF radio
 • Solid state Doppler radar

Capacities
 • Potable water: 105 gallons
 • Gray water: 105 gallons
 • Passengers: 600

“We can spin this boat on its axis — 360 degrees on a dime.”

— Capt. Kaitlynn McHenry

Above, Capt. Kaitlynn McHenry steers downriver in the Niagara River Gorge. Both new tour boats are equipped with advanced navigation electronics. Mate James Strassburg drives with the mantra that "slow is pro."



Left, fast charging equipment replenishes batteries on *James V. Glynn* and *Nikola Tesla* between runs. Right, the new *Maid of the Mist* tour boats were designed for a better passenger experience.



counterclockwise and let the current push the vessel downriver. Halfway back to the dock, *James V. Glynn* spun around to show off

its capabilities to the 197 guests spread across the two decks.

“That is a new move that demonstrates its maneuverability,”

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McHenry said. “We can spin this boat on its axis — 360 degrees on dime.”

James V. Glynn and *Nikola Tesla* replace *Maid of the Mist VI* and *Maid of the Mist VII*, steel mono-hulls built in the 1990s. The new all-electric vessels can hold 600 passengers on two decks, and both levels offer fewer obstructions than their predecessors.

Battery banks within each hull store plenty of electrical power for each run, which consume less than 20 percent of their charge. The batteries supply power to 200-kW Ramme electric motors turning Veth L-drives in each hull. Cables at the dock replenish the batteries within minutes during passenger

loading and offloading.

McHenry passed the dock and then spun 180 degrees to line up for the landing. Both new vessels have bow thrusters, but captains rarely use them. She took her time bringing *James V. Glynn* against the landing under the mantra of “slow is pro.”

“We try to go as slow as possible,” said Strassburg, who began his career working on deck and was promoted to mate last spring. “That is the biggest thing, trying to take it nice and easy, especially on days like this.”

The two *Maid of the Mist* vessels run near full capacity during the summer high season, especially on weekends. They share the

waterway with two Canadian tour boats that run a similar route in the narrow Niagara River Gorge. The four vessels coexist thanks to a finely tuned schedule. Staying on time requires discipline and precision among the captains and the four deck hands.

Each run is barely a mile each way, and the maneuvers are generally the same every time, for up to 20 round trips each day. But the captains said variable weather, currents and crowds make each trip unique.

“There are rocks that are in different places than when we left the day before,” McHenry said. “The route may be the same, but the water itself is always changing.” •

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Towing

Story and photos by Casey Conley



Diesel-electric hybrid propulsion proves value for U.S. operators

It's been more than two years since Harbor Docking & Towing Co. added its first diesel-electric hybrid tugboats. That decision has paid off in multiple ways for the Lake Charles, La., operator.

The Caterpillar hybrid system aboard *Ralph* and *Capt. Robb* delivers 91.5 tons of bollard pull while offering

flexibility from different propulsion settings. The system is fully optimized for Harbor Docking's operational profile and has led to significant savings on fuel, maintenance and emissions, according to Harbor Docking President John Buchanan.

"You can really dial it in for your operation, and from a management side

that is fantastic," Buchanan said last summer during an interview aboard *Ralph* in Lake Charles.

"It is very unlikely we will ever build a regular ASD tractor tug again, just because of the cost savings," he added.

The 93-foot *Ralph* and *Capt. Robb* were built in Maine by Washburn & Doughty. They were the

first-ever U.S. vessels with an all-Caterpillar diesel-electric propulsion system. It consists of two 2,550-hp Cat 3512 mains, two 600-kW Cat C18 gensets and a 200-kW Cat C7.1 harbor genset, along with Cat z-drives. Two 750-hp ABB electric motors can power the drives on their own or in tandem with the main engines.

Ralph and *Capt. Robb* were two of the four hybrid tugboats delivered in mid-2019. The 100-foot *Delta Teresa*, built for Baydelta Maritime, and the 65-foot *Michigan*, built for Great Lakes Towing Co., round out the pack.

Delta Teresa has two 2,650-hp Caterpillar 3516 main engines, along with two 300-kW Cat C9.3 gensets and a 150-kW C7.1 genset, which supply electricity to 650-hp Marelli electric motors. The vessel, now operating in Los Angeles-Long Beach, can hit 90 tons of bollard pull at full system power.

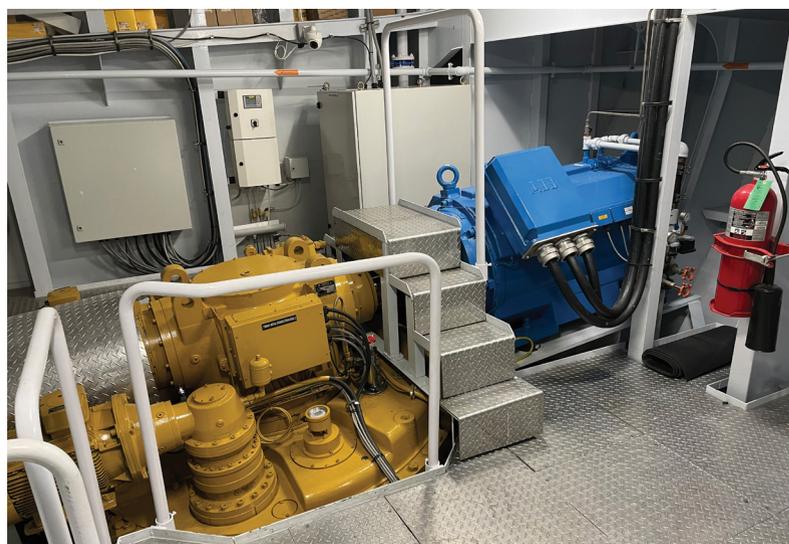
Michigan, and its subsequent sister vessels in the series, are equipped with two 1,000-hp MTU main engines, twin 99-kW John Deere/Marathon diesel gensets and a Logan Clutch FlexaDrive system. Electricity from the gensets runs 75-hp electric motors installed on the Twin Disc reduction gears. The electric motors turn the gears, which turn the shafts to move the props.

Great Lakes Shipyard has delivered five tugs for sister company Great Lakes Towing since 2017, and the three most recent have the FlexaDrive hybrid propulsion. A sixth will be

completed soon, and a seventh is slated for completion by mid-2022. Both will have the FlexaDrive system. The company has assigned its new tugs to major Great Lakes ports, where they have replaced older vessels.

“The tugs can make about 5 knots while underway with the hybrid system, which is generally used while operating to and from the job site and while standing by,” said Joe Starck, president of Great Lakes Towing Co. and Great Lakes Shipyard.

The maritime industry is rapidly moving toward a low-carbon or even zero-carbon future, with



Above, *Ralph's* crew, pictured from left, are mate Jarrod Racca, engineer Quinton Poullard, and Capt. Dion Kingsbury. Left, ABB electric motors installed aft of the Cat z-drive. Opposite page, *Ralph* and *Capt. Robb* on display near the company's dock.

different fuels and battery technologies showing great promise as a replacement to traditional diesel engines. Those solutions,



however, remain years away from broader adoption.

They also have price tags that many companies

can't afford or can't justify. Crowley Maritime, for instance, received sizable subsidies for its proposed battery-electric tug-



Scott Fish

boat *eWolf*, which will run almost entirely on electric power upon completion in 2023.

As such, hybrid tugboats offer something of a bridge between conventional diesel-propelled tugboats and low-carbon technologies of the future. Although they cost more to build, the additional investment needed for a hybrid tugboat can be recovered more quickly than with more advanced technology.

“The additional cost of the hybrid package was about \$750,000 per tug, which was quite an undertaking,” Starck said. “But we estimate we will break even on the additional investment in about seven

years. Thereafter, we expect the reduced operations and maintenance costs will make their way to our bottom line.”

Harbor Docking has experienced similar benefits from *Ralph* and *Capt. Robb*, which entered service in mid- and late-2019. Buchanan said fuel costs for its Lake Charles fleet fell by 48 percent in 2020, the first full year the hybrid vessels were in service. Additionally, the two vessels operated 47 percent of the time without the main

Above, the Great Lakes Towing Co. tug *Michigan* working in Cleveland. Below, Capt. Dion Kingsbury steers *Ralph* toward a waiting bulker in Lake Charles. Opposite page, *Ralph* and Capt. *Robb* are capable of 10 knots using just their electric motors.

engines, thereby reducing maintenance and extending the life of filters and other components that can cost \$1,000 apiece or more.

Reduced emissions are another key element of the hybrid tugboats. Compared to a conventional



tugboat, *Ralph* and *Capt. Robb* generate 20 percent less nitrogen oxides, 46 percent less carbon dioxide, 43 percent less hydrocarbon emissions and 78 percent less particulate matter, according to data from Harbor Docking.

“In my opinion, this is a game changer for companies trying to make meaningful emissions reductions within the port,” Buchanan said. “Anyone will be hard-pressed to build a tug that has better numbers while still offering 90 tons of bollard pull.”



Harbor Docking & Towing

Outwardly, *Ralph* and *Capt. Robb* resemble other 93-foot ASD tugboats designed by Washburn & Doughty. But their operation can differ substantially from a traditional z-drive tugboat. The propulsion system aboard both tugs has four customizable settings that control which engines, gensets and electric motors are used, and at what output. The two most commonly used

are the “eco” mode and “power” mode, although the tugs have normal and FiFi settings, too.

Eco mode disengages the main engines and uses electricity from one or more generators to power the electric ABB motors. The tugs can hit 7.5 knots using a single C18 genset, and 10 knots using all three. The second and third generators automatically spool up as power demands exceed certain thresholds.

Captains use eco mode when transiting to and

from jobs, loitering alongside a ship, or holding a vessel in position at the terminal. The electric motors, at full bore, can produce about 30 tons of bollard pull.

Power mode, meanwhile, is used during docking and assist, and while escorting big ships. It applies power from both main engines with additional boost from the electric motors using up to



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towing

three generators. Together, in power mode, *Ralph* has reached 93 tons of bollard pull, according to Capt. Dion Kingsbury.

These modes and their underlying functionality have undergone multiple tweaks since the vessels arrived in Lake Charles. And that is a key benefit of the package, Buchanan said. By fine-tuning the engine settings, the company can maximize fuel savings.

“The beautiful thing about this boat is we can continue to adjust and fine-tune the programming to give us more power, less power, make it more economical or less economical — whatever we need to meet our needs operationally,” he said. “Right now, we have it pretty much dialed in.”

Even so, the company has found two tweaks it hopes will improve efficiency even further. Both changes would prevent the C7.1 harbor generator from automatically cycling on during eco and power modes. In both cases, that harbor unit kicks on for brief intervals during very short periods of high demand with minimal operational benefit.

Harbor Docking’s Lake Charles crews operate in some of the busiest

petrochemical ports along the Gulf of Mexico. They routinely handle tankers and bulkers — and, increasingly, vessels loaded with wind turbine parts. The two hybrid tugboats have more than earned their keep, according to Kingsbury.

Ralph is “extremely responsive, and it can stop in its own length,” he said. “It’s maneuverable and the torque is there — there is no lag.”

The vessels are also smoother running, with less vibration than conventional tugs with similar horsepower, even when working a ship. And when necessary, the electric motors provide finesse at low rpms.

Kingsbury recalled waiting out a lightning storm last summer to undock a tanker from a nearby refinery. *Ralph* held the vessel against the terminal for more than three hours using power from a single genset.

“That would have been pumping NOx and CO2 and other bad stuff into the air if we were trying to run big diesel engines,” Buchanan added. “We’d have been idling at the least efficient speed possible. Instead, we were burning seven gallons an hour.”



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Casualties

Ship identified as possible cause of damaged California oil pipeline

By Michael Joe

The Coast Guard has identified the owner and operator of the containership *MSC Danit* as “parties in interest” in the damaged pipeline that leaked oil off Southern California.

The service is investigating other possible vessels of interest in the incident, Coast Guard spokesperson Lt. j.g. SondraKay Kneen said. Those ships have not been identified.

Authorities believe the anchor of a large ship dragged across the 16-inch San Pedro Pipeline. They suggest it occurred anywhere from several months ago to a year ago, when the pipeline was last surveyed and found to be intact.

Capt. Jason Neubauer, chief of investigations for the U.S. Coast Guard, told reporters on Oct. 8 that the wide time frame is based on a recent underwater survey video showing a 13-inch linear fracture with marine growth. The pipeline

also is more than 100 feet out of position.

“You can see that there was likely an initial incident of some kind of anchor drag over that section. But since that time, there has been [marine] growth.

That has refocused the time frame of our investigation,” Neubauer said during the press conference.

The Coast Guard and other government agencies have not determined definitively that an anchor strike damaged the pipeline. Subsequent testing is under way to try to determine the nature and cause of

the breach.

“Many different factors could have added stress to the pipeline, including seismic activity, contact from an anchor, or internal cleaning of the pipeline,” Neubauer told *Pro-*



U.S. Coast Guard photos



Above, oil sheens off Southern California from the damaged pipeline. Left, crews work to clean nearby beaches as containerships anchor offshore.

fessional Mariner by email. He said a metallurgical analysis of the fracture by the National Transportation Safety Board “may provide answers on how the crack formed and propagated.”

Neubauer also made clear more than one vessel could have dragged



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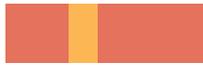
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maritime casualties

anchor over the pipeline over an extended period.

“For that reason, we’re going to keep looking at vessels — a number of them — and we’re not ready to rule out any vessels as a contributing cause of this incident.”

“We are now sifting through one year’s worth of automatic identification system (AIS) data and radar images from multiple sources, including the Coast Guard’s Marine Exchange Vessel Traffic Service,” he continued. “That data will take some time to review.”

The 1,200-foot *MSC Danit* is operated by Switzerland-based Mediterranean Shipping Co., and it is owned by Dordellas Finance Corp. The ship was involved in an “anchor-dragging incident” on Jan. 25, 2021, in the bay near the ports of Los Angeles and Long Beach, the service said. The incident happened during a severe storm, which brought 30- to 55-knot winds and swells up to 17 feet.

The Marine Exchange of Southern California, which provides information for the Los Angeles-Long Beach Port Complex, said in a social media post that 24 ships went out to sea rather than remain at anchor during the storm.

Federal investigators boarded the Panama-flagged *MSC Danit* on Oct. 16 and spent part of the day aboard the ship, Kneen said. It arrived a day earlier at the Port of Long Beach from Shanghai, China, according to AIS data.

Officials do not yet know when oil began releasing from the San Pedro Pipeline, which runs from the Port of Long Beach to an oil pro-

cessing platform named Elly, located about 9 miles from the seaside community of Huntington Beach.

A large slick was reported Oct. 1, and oil was later discovered in nearby wetlands and on beaches, as well as dead fish and birds. The Coast Guard estimates between 25,000 and 132,000 gallons of oil spilled from the pipeline. The pipeline and the Elly platform are owned by Houston-based Amplify Energy Corp.

SkyTruth, a nonprofit using satellite imagery and data to expose environmental harm, on Oct. 17 posted a Google Earth image depicting exactEarth AIS vessel tracking data that showed the 14,000-TEU *MSC Danit* moving across the pipeline several times on Jan. 24 and 25.

“The positioning of the *MSC Danit* in relation to the pipeline during the storm event” is under investigation, Neubauer said by email.

Authorities also are examining how the Coast Guard designated anchorages in federal waters near the pipeline when the anchorages were established in 2006.

“The investigation will examine the approval process used for the added anchorages to determine whether surrounding hazards, like the oil pipeline, were properly evaluated,” Neubauer said.

A parties-in-interest designation means attorneys for Switzerland-based Mediterranean Shipping Co. and Dordellas Finance can cross-examine witnesses and call their own during the casualty investigation.

MSC did not respond to a request for comment. Attempts to reach Dordellas Finance Corp. for comment were not successful.

NTSB cites poor communication, inaccurate AIS data in fatal collision

By Michael Joe

Both towboats involved in a fatal collision in the Lower Mississippi River near Destrehan, La., in early 2020 broadcast inaccurate tow lengths over AIS, according to federal investigators.

The National Transportation Safety Board (NTSB), which investigated the collision involving *Cooperative Spirit* and *R.C. Creppel*, also cited inadequate communication between pilots helping the two tows in the minutes leading to the collision.

“Since the *Cooperative Spirit* pilot did not inform the *R.C. Creppel* pilot of the size or length of his respective tow when they planned their meeting, nor did the *R.C. Creppel* pilot inquire as to its size, the *R.C. Creppel* was likely unaware of the length of the *Cooperative Spirit* tow,” the NTSB said in its accident report. “The two pilots had arranged the meeting without a complete understanding of the developing

situation.”

Barges pushed by *Cooperative Spirit* and *R.C. Creppel* collided at 0533 on Jan. 26, 2020, at Lower Mississippi Mile 123, near 26 Mile Point and the Hale Boggs Memorial Bridge. Three of four crewmembers aboard *R.C. Creppel* died when the vessel capsized. The upbound bulker *Glory First* also struck *Cooperative Spirit*'s barges after the initial collision.

All 40 of *Cooperative Spirit*'s barges broke free, as did both of *R.C. Creppel*'s barges. Sulfuric

acid vapors from one of *R.C. Creppel*'s barges entered the atmosphere, and up to 8,000 gallons of diesel escaped into the waterway after the towboat capsized. Vessel damage from the incident approached \$3.8 million.

The 1,680-hp *R.C. Creppel* was downbound in the Mississippi with two barges in tow on the morning of the collision. Its total length was 514 feet, although it broadcast just 69 feet over AIS. The 10,500-hp *Cooperative Spirit* was upbound with 40 barges, and

Right, three of *R.C. Creppel*'s four crewmembers died after its tow collided with a larger one pushed by *Cooperative Spirit*. Below, the incident happened just upriver from the Hale Boggs Memorial Bridge.



Jeff Yates via NTSB



NTSB

its total length was 1,600 feet, but it showed 200 feet on AIS.

Ten minutes before the incident, the pilot of the upbound *Cooperative Spirit* radioed his counterpart on *R.C. Creppel* to arrange a meeting. They were about 3.5 miles apart, and both agreed to meet port-to-port near 26 Mile Point. Neither pilot could see the other around the bend.

On the radio call, *R.C. Creppel*



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pel’s pilot described the size of his tow, but *Cooperative Spirit’s* pilot did not and *R.C. Creppel’s* pilot didn’t ask how long it was, the report said. Neither pilot made subsequent radio contact.

Cooperative Spirit’s pilot steered a course near the left descending bank. The tow traveled at about 4.6 mph, and the current nudged it toward the center of the channel.

R.C. Creppel made about 13 mph, pushed by a 6-mph current. The nearest river gauge, 20 miles downriver at Carrollton in New Orleans, showed the river was high but not at flood stage.

When the lead barges on both tows were about a half-mile apart, *Cooperative Spirit* continued a slow turn to port, away from the bank. Video from *Cooperative Spirit* shows *R.C. Creppel’s* navigation and deck lights clearing the background lighting at about 0532 with the tows about a quarter-mile apart.

“Once in sight of one another, about 50 seconds before the accident, there was minimal time for either pilot to react or respond to the other vessel’s movements to avoid collision,” the NTSB determined.

The collision happened at 0533 when the front of *Cooperative Spirit’s* tow collided with *R.C. Creppel’s* empty lead barge, *SCC-95*. That barge broke free, and *Cooperative Spirit’s* barge *ART 44311* hit *R.C. Creppel’s* other barge, *RHA-2204*, allowing the sulfuric acid vapors to release

from a damaged valve.

R.C. Creppel’s lone surviving crewmember, a deck hand, saw water enter through the galley’s open main deck starboard door. He swam up the galley toward the port-side door, pushed it open and entered the water. The vessel capsized and sank in a matter of seconds.

Had that starboard watertight door been properly closed, the NTSB suggested, all four crewmembers might have had time to escape the vessel.

The deck hand swam to a nearby barge and hung onto a hanging wire. He was rescued about 50 minutes later, more than a mile downriver. The three other crewmembers aboard *R.C. Creppel* have not been found and are presumed dead, including its pilot.

The upbound bulker *Glory First*, under the guidance of a New Orleans-Baton Rouge Steamship Pilot Association (NOBRA) pilot, struck several barges still attached to *Cooperative Spirit* at about 0540, causing more barges to break free.

The NOBRA pilot slowed the ship and tried to steer around the collision. The two tows were blocking much of the river, and the ship was unable to avoid the impact, the report said.

The NTSB investigation emphasized the importance of towing vessels entering accurate lengths for their entire tow into AIS — even though it is not required by federal regulation.

The fatal incident near the Hale Boggs bridge was not the first incident of this kind. In 2014, the agency identified a similar probable cause in a Houston Ship Channel collision between the bulk carrier *Summer Wind* and *Miss Susan's* tow that spilled 168,000 gallons of fuel.

In 2016, the NTSB published a safety study that assessed the Coast Guard's Vessel Traffic System, finding that "the Coast Guard may be limited in its ability to detect potential collisions, allisions and groundings" without accurate information about vessel and tow configuration.

Based on that assessment, the agency issued a series of safety recommendations asking that the Coast Guard, the American Waterways Operators and the Radio Technical Commission work on modifying regulations, procedures and standards so that "vessels engaged in towing operations broadcast accurate automatic identification system information."

In May 2020, four months after *R.C. Creppel* and *Cooperative Spirit* collided, the Coast Guard published a safety alert recommending vessel operators "ensure that accurate and up-to-date

information is entered into the AIS."

"The accurate display of a vessel's full length becomes particularly important in situations that prevent vessels from seeing each other until they are in very close proximity," the alert said.

R.C. Creppel could not be salvaged nor examined due to the strong currents and poor visibility underwater. The towboat's owner, Elite Towing, declined to comment on the NTSB findings.

American River Transportation Company, the owner and operator of *Cooperative Spirit*, did not respond to an inquiry.



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Human error, insufficient training cited in *Golden Ray* capsizing

By Michael Joe

The vehicle carrier *Golden Ray* capsized in St. Simons Sound due to a crucial vessel stability miscalculation and inadequate training and safety procedures, the National Transportation Safety Board (NTSB) concluded.

Investigators said the chief officer entered incorrect ballast levels into a shipboard computer, indicating the vessel had more water than it actually did. As a result, *Golden Ray*'s center of gravity was "significantly higher" than calculated.

"*Golden Ray* capsized because it did not possess enough righting energy to counter the port heeling moment created during the attempted execution of the 68-degree starboard turn," the NTSB said in its accident report.

The 656-foot ship capsized Sept. 8, 2019, at 0140 while outbound from the Port of Brunswick. It had 23 crewmembers and a pilot on board, along with 4,067 vehicles. Two crewmembers suffered serious injuries, and four engineering personnel were trapped inside the ship for 40 hours.

Damage from the incident was substantial. The loss of the vessel was estimated at \$62.5 million, while the vehicle cargo below deck was worth \$142 million. The salvage effort to remove the ship is nearly complete at a cost approaching \$850 million.

The Marshall Islands-flagged ship left the Port of Brunswick dock at about 0030 under the control



U.S. Coast Guard

Golden Ray capsized and sank before dawn in late 2019 near Brunswick, Ga.

of a pilot. The voyage proceeded normally as the ship approached the 68-degree turn around the northern point of Jekyll Island at about 13 knots.

The pilot issued starboard rudder commands followed by a return to midships. That's when the trouble started.

"The helmsman complied with the pilot's order, and, according to the pilot, the 'ship just took off,'" the report said. "At 0136:58, the vessel started to heel to port. The pilot stated that as the vessel began to turn, it 'felt directionally unstable ... meaning when I started the turn, she wanted to keep turning.'"

Attempts to counter the heeling motion weren't successful. The pilot radioed for help, spurring a massive rescue effort involving federal, state and local resources. Eleven crewmembers were lowered from the bridge to a Coast Guard vessel via fire hose, including the pilot and master. Responders rescued five

more crew, and two others were hoisted off the starboard side by a Coast Guard helicopter.

Two other crewmembers were rescued by 0645, including the chief engineer, who escaped by breaking his cabin window. Three engineering crewmembers and an engineering cadet were trapped in the engine room and engine control room by water that flooded the ship when it rolled over. Those spaces were completely dark, and the men had only a single flashlight.

"As time went by, the air temperature within the engine room rose," the report said. "According to the engineers, the excessive heat made it very uncomfortable and hard for them to breathe, and they eventually entered the flood water to stay cool."

Rescue personnel located the missing crew after hearing tapping on the hull. They drilled large holes into the ship to rescue the men. Two engineers and the cadet escaped the vessel at about

1500 on Sept. 9, and the final crewmember left the ship about 2.5 hours later.

Two fires started in the ship in the days following the capsizing. One started at about 0430 on Sept. 8 in the vehicle decks that burned itself out within 24 hours. The second started on Sept. 9, minutes after the last crewmember was rescued. It burned only a few hours.

Prior to getting underway, *Golden Ray's* chief officer manually entered ballast data into the ship's LoadCom computer. He did this even though the system can automatically retrieve ballast data from the ship's monitoring and control system.

The chief officer did not use a software feature to measure the vessel's metacentric height, known as GM. That is the distance from the ship's center of gravity to its metacenter, and it measures the vessel's ability to right itself.

Investigators also learned ship operator G-Marine Service Co. lacked procedures that might have caught the error. The chief officer was solely responsible for calculating stability, and there were no checks in place for another officer to verify his work.

"This practice — when only the chief officer was responsible for a safety-critical task without a backup to help identify possible errors — allowed a single point of failure to occur," investigators said.

The chief officer joined *Golden Ray* about six months earlier, and he had 10 years of experience as a chief officer. He did not receive

formal training on the stability computer, and G-Marine Service Co. had no means to confirm he knew how to use it.

"The operator did not provide official training on crew positions and responsibilities to new crewmembers but instead relied on a combination of newly hired crewmembers' experience and knowledge as well as on-the-job training," the report said.

Since the accident, G-Marine Service has adopted policies to increase training for chief officers on stability, cargo management and the LoadCom computer. The company also requires that chief officers compare their computer calculations to an onboard booklet of tables of similar loading conditions to ensure adequate stability.

The company now requires a final load plan and stability verification before vessels leave port. It has also begun to replace LoadCom computers with a new system that will be standardized across its fleet.

Additionally, a January 2020 amendment to the International Marine Organization International Convention for Safety and Life at Sea requires the master on cargo vessels to determine the ship's trim and stability, according to the NTSB report.

Attempts to reach G-Marine Service, a subsidiary of logistics company Hyundai Glovis Co. Ltd., were not successful. Hyundai Glovis, part of the Hyundai Kia Automotive Group, did not respond to an inquiry about the NTSB findings.

'Historic' *Golden Ray* salvage nearly complete

Salvors recently lifted the final cut section of *Golden Ray* from St. Simons Sound, Georgia, signaling the beginning of the end for one of the largest marine salvage operations in U.S. history.

Weight-shedding teams will remove vehicles from the last section before it is placed on a dry-dock barge for transport to the Mayor's Point Terminal for partial dismantling. Then it will be transloaded and fastened onto the barge *Julia B* for transit to a Louisiana recycling facility, the Coast Guard Unified Command said.

The final lift happened more than two years after the 656-foot vehicle carrier capsized after leaving port on Sept. 8, 2019. Investigators concluded a miscalculation of ballast tank levels due to human error was the probable cause.

In the months that followed the capsizing, fuel was removed from the vessel to minimize environmental damage. Texas-based T&T Salvage was hired as lead salvage contractor and plans were finalized for demolition and wreck removal and construction of an environmental containment barrier.

The plan to carve the ship into eight sections, each weighing up to 4,100 tons, has taken much longer than the eight weeks the unified command projected.

Cutting operations did not begin until November 2020 due to the active hurricane season, and those efforts were delayed by multiple challenges along the way. Those include maintenance to the cutting apparatus while carving thicker metal near the engine room, a fire inside the wreck in May, and several oil spills during lifting operations.

Other hurdles included the impact of "extreme daily tidal cycles" on environmental mitigation and daily Covid-19 safety protocols, Coast Guard spokesperson Petty Officer Michael Himes said.

"This operation is historic," he said. "It's one of the largest heavy-lift operations in U.S. history. When considering the investment in environmental mitigation infrastructure, the wreck removal operation becomes a singular achievement in a multi-agency, public-private partnership to eliminate the threat posed by the wreck to the environment and to the port while ensuring public and personnel safety."

Environmental monitoring will continue for several months after removing the last section. The mounting cost of the operation was recently estimated at \$842 million by the pool of insurers under The International Group P&I.

—Michael Joe

NTSB: Sudden storm caused New Orleans containership breakaway

By Michael Joe

Powerful winds from an unexpected thunderstorm blew a containership free from a New Orleans pier and damaged shore-side gantry cranes loading the vessel, the National Transportation Safety Board (NTSB) determined.

The 1,099-foot *CMA CGM Bianca* was moored alongside the Napoleon Avenue Container Terminal on Aug. 2, 2020. A sudden downburst from the thunderstorm buffeted the ship with 70-mph winds at about 1400.

“The vessel was using all lines that were in service and rigged for a starboard-side-to mooring under normal conditions,” the NTSB report said. “But the force of wind against the ship’s sail area during the downburst overcame the breaking strength of several lines, leading to the ship’s moving away from the pier.”

The two cranes required more than \$15 million in repairs, while the Malta-flagged ship sustained about \$60,000 in damage. Millions of tiny plastic pellets entered the river after a container fell and broke open. They were not recovered.

Cargo loading operations overseen by local longshoremen began at about 0715 using gantry cranes 5 and 6. That morning, the National Weather Service (NWS) forecast called for a 40 percent chance of showers and thunderstorms with light winds.

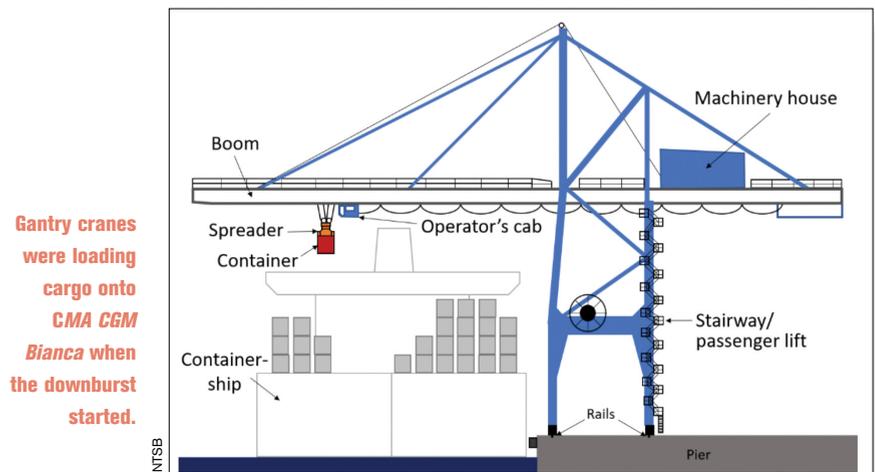
About 40 minutes before

the incident, the weather service issued a statement about a strong thunderstorm 13.5 miles to the west over St. Rose, La., moving east at 15 mph. “However, the statement made no mention of the threat of high winds, and a severe thunderstorm warning was not issued,” the report said.

Longshoremen operating cranes

thunderstorm-generated downburst.” Downbursts can cause damage like an EF0 or EF1 tornado and are sometimes mistaken for them, according to the NWS.

Seven forward mooring lines and three aft mooring lines holding *CMA CGM Bianca* to the terminal parted at about 1402, and winds pushed the ship’s bow into



5 and 6 were loading 40-foot cargo containers forward of the deckhouse when rain began to fall at about 1350. Within 10 minutes, conditions became so bad *CMA CGM Bianca*’s master thought they came from a tornado. Longshoremen operating the gantry cranes said the winds strengthened “in seconds.”

A towboat directly across the river recorded a 73-mph wind gust at about 1400 when the ship broke free.

Investigators determined the severe winds likely originated “from the outflow of a

the river. At about the same time, the two cranes began moving along their rails.

The container held by crane 5 fell and hit other cargo on the ship as the crane rolled. It landed on the pier and broke open, allowing countless tiny plastic “nurdles” to enter the Mississippi. The other container and some crane components fell into the ship’s hold.

Within minutes, crew aboard the containership dropped both anchors and started the bow thruster and engine to maintain the ship’s position about 80 feet from the pier. “The quick actions

of the crew prevented the vessel from drifting downriver, where it could have caused damage to other vessels or shore infrastructure,” the report said.

The sudden change in weather left little time for the crane operators to respond. Investigators determined they acted properly by trying to move their suspended containers into a safe position before power to their cranes automatically shut off due to the high wind.

Crew aboard *CMA CGM Bianca* inspected the 16 mooring lines on June 6, 2020, and 14 were reported to be in good condition. Two were rated as acceptable. Ten

of the 16 parted during the break-away.

All five head lines snapped, as did two of the three forward spring lines and three of the four aft spring lines. The four stern lines held. The lines were made from different materials, with most made either from polyester/polyolefin or nylon, and two made from polypropylene. At least one of each type parted during the incident.

The NTSB did not explore whether the use of lines made from different materials influenced the outcome. However, the agency noted each material has different

properties that could impact performance.

“If lines with less elasticity are combined with lines with more elasticity, the less elastic lines may take greater load than the more elastic lines when under heavy tension,” the NTSB said. “In extreme conditions, this may result in unexpected failure of the less elastic lines and successive failure of all lines.”

The Port of New Orleans declined to comment on the NTSB findings, while the port’s operator, New Jersey-based Ports America, did not respond to an inquiry.

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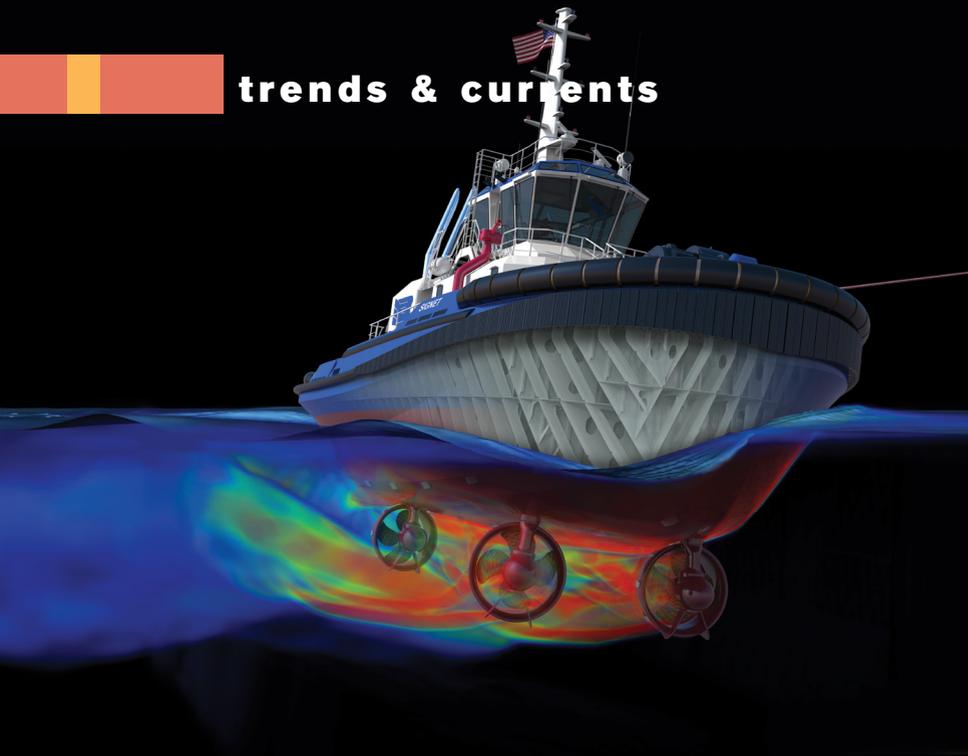
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Robert Allan Ltd.

3D tugboat design comes to life

by Alan Earls

Signet Maritime Corp. has begun construction on the first commercial vessels in the United States developed using a purely 3D design process.

The tugboats will be built to the Advanced Rotortug design by Robert Allan Ltd., which places two azimuthing drives forward and one aft. The concept was first developed by Dutch company Kotug, and tugboats outfitted with this propulsion package are known for their maneuverability and escort prowess. Signet will operate the tugs at the Port of Corpus Christi in Texas.

The 3D process fundamentally changed how vessels move from concept to design to construction. According to ABS, this new model saves time and money during the design process and streamlines collaboration between designer and customer. Taken together, this model can reduce design time and

speed up the start of construction, among other benefits.

“It has allowed us to have far more input into the final boat we build, and to better understand our decision-making in the early parts of the design,” Timothy McCallum, Signet’s vice president of engineering, vessel dynamics and economics, said of the 3D design.

Naval architecture has evolved from paper plans to computer-aided design (CAD) on its march to a 3D model. During earlier methods, modification could necessitate a new set of drawings. Improvements in computing power and software have paved the way for a fully digital design process.

Naval architects at Robert Allan Ltd. (RAL) have used 3D design for some time, starting first with hull forms and then hull surface development, according to James Hyslop, the firm’s director of project

development. Those initial steps led to structural work, but each step remained separate and each process was typically handled by different software. Integrating these different elements made it possible for virtual walk-throughs and other forms of visualization to finalize the placement of various machinery and controls within the hull, he explained.

The process is now familiar and reliable. Naval architects can quickly review a set of plans and see how different aspects could be improved, Hyslop said. “It has become really useful.”

The ability to work in this manner, using this type of technology, has been a matter of considerable long-term work for the firm’s naval architects. Off-the-shelf software packages alone don’t feature the necessary level of integration.

Ultimately, Hyslop said, the process is moving toward a “parametric-type model,” meaning if you define the model well, you can start with a 80-by-40-foot tug design and scale it accurately to vessels of other sizes.

Hyslop said the overall process is not dramatically faster than traditional ways of generating plans, but is less prone to error. And it is particularly helpful with getting approvals from customers and in working with classification societies such as ABS. That’s especially true on newer designs.

“We have libraries of existing designs, but when we are working on something new, it helps everyone,” Hyslop said. And while many organizations continue to get excellent results from a 2D computer-aided design system, he is confident 3D will grow in importance across the maritime industry.

From an economic perspective, it doesn't add any cost for the customer and it makes the process smoother.

Signet paints a similar picture of the evolution and the benefits of adopting a fully 3D design. McCallum said the design effort allowed for ongoing collaboration on the hull using a live and evolving model. That process gave Signet a consistent understanding of the relationships between structures. It also provided 3D measurements of components, clearances for welding and construction, and other key details that would traditionally have had to be derived from the 2D structural plans or a final assembly model.

Likewise, class and regulatory review has taken place with comments on the same model, working from the same detail, McCallum noted. Then, after approval, the hull components that make up the model are individually nested, cut and detailed out in assembly drawings for construction by the shipyard. Designer, owner, class society and builder all work from the same source, which reduces the risk of drawing inconsistency or rework from survey, McCallum said.

There's always a risk in trying something new. In this case, there were concerns about software for the model review or potential delays in learning the program. "But the benefits of removing so much 2D interpretation from the design and construction process outweighed these concerns, and all involved mitigated the risks effectively," McCallum said.

Construction began on the new Rotortugs last summer at the company's shipyard in Pascagoula, Miss. "They will be built in our 43,000-square-foot covered fabrication area, and launched with our new 1,650-ton dry dock. We have built five state-of-the-art tugs like these there in the past 10 years," McCallum explained.

Signet expects the 3D design product will lead to more efficiency at the yard, more consistent lifecycle surveys and more repeatable designs. Those benefits should extend past construction, allowing for more effective structural repairs down the road.

"It's an exciting leap forward for the way Signet builds and manages its fleet," McCallum said.

This novel change in vessel

design also required buy-in from regulators. The U.S. Coast Guard Marine Safety Center conducted an evaluation of the 3D model to determine the viewing software's usability for plan review, according to Lt. Cmdr. Brittany Panetta. She said the Coast Guard embraces technological advancements like those made possible by 3D design.

With ABS as the third-party design verification agent, "this project affords a great opportunity for the Coast Guard to evaluate how efficiently and effectively we can verify compliance with federal standards when a vessel's design is presented in 3D format only," she said.

ABS expects the successful completion of the Signet project will lead to more using this cutting-edge 3D process.

"This landmark achievement sets the bar for future projects both in the U.S. and internationally," said Christopher Wiernicki, ABS chairman, president and CEO.

"The advantages are significant," he continued, "and we are confident that once the industry develops the infrastructure to handle 3D models in shipyards, a pure 3D process will become the default approach." •

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by David Stathatos

Coming ashore (for good) takes preparation and perseverance



It was during my last hitch that I decided I would not be coming back to shipping.

It was not because of bad experiences, because I had plenty of good ones, too. I wanted to get married, have a family and be able to go home every day. The decision was years in the making and not one I made lightly.

I disliked being away for long periods and then having to travel during downtime for training. Plus, the insecurity of the job itself made it difficult to achieve the goals I set for my life. It was time to come ashore.

Now, four years later, I have a satisfying career using skills I learned at sea. Making the transition, however, will vary for everyone based on their background and their individual situation. Here is how it worked for me, and what I learned along the way.

I graduated from California State University Maritime Academy in 2013 as a third mate. Even then, I wasn't completely sure what my long-term plans were, or if I even wanted to make a career in the maritime industry. I attended Cal Maritime because of the high employment rate it boasted upon graduation. And going to sea was

something I could see myself doing, at least for a little while. It was important to me that I got a degree, which helped a great deal down the road. I sailed for about three years, working on tugboats towing container barges for six-weeks-on/three-weeks-off rotations, four-month contracts on a bulker ship and a roll-on, roll-off ship (ro-ro) prior to making a career change.

The big picture to consider before coming shoreside is that most, if not all, of your training certificates will expire, and it would be expensive to renew them on their own. Should you choose to commit to coming ashore, you may get to a point where your trainings are about to expire, and you will need to make a difficult decision: stay the course and accept forfeiting your opportunity to return to sea or ship out again.

After returning to shore, I utilized every resource I could find, including online job posting sites, in search of a new job. These included Cal Maritime's alumni website, which had a list of job openings that pertained to maritime industry shore side careers, and maritime publications. I also attended alumni events to see if anyone had any insights or at least suggestions. My job search took a long time, and it included many rejection emails and first interviews with no return calls.

After about four months, I was hired on at my first shoreside job as a construction project superintendent at a boatyard. I am grateful for that opportunity because if that company hadn't taken a chance on me, I believe I would have been stuck at square one for a long time. I learned new skills, including project planning and project management, and I got to work as a superintendent on highly detailed jobs such as welding, sandblasting and painting, pipefitting and machinery. After about two years, I started looking for a position I could enjoy for the long term.

Fast forward a couple months, I had only had a couple interviews and was once again preparing for a long search. I was surprised when I received an email asking if I was interested in a position as a facilities manager at an aeronautics facility. The interview process went on for three visits, and after my third, I was offered the job, which I gladly accepted. I left the boatyard on good terms, grateful for the chance to have proven myself, but was excited for the new opportunity.

Here I am, four years later, at that facilities management job as a contractor for NASA Ames Research Center's Fluid Mechanics Lab, where I continue to grow my jack-of-all-trades skillsets as not only a facility manager, but as a safety



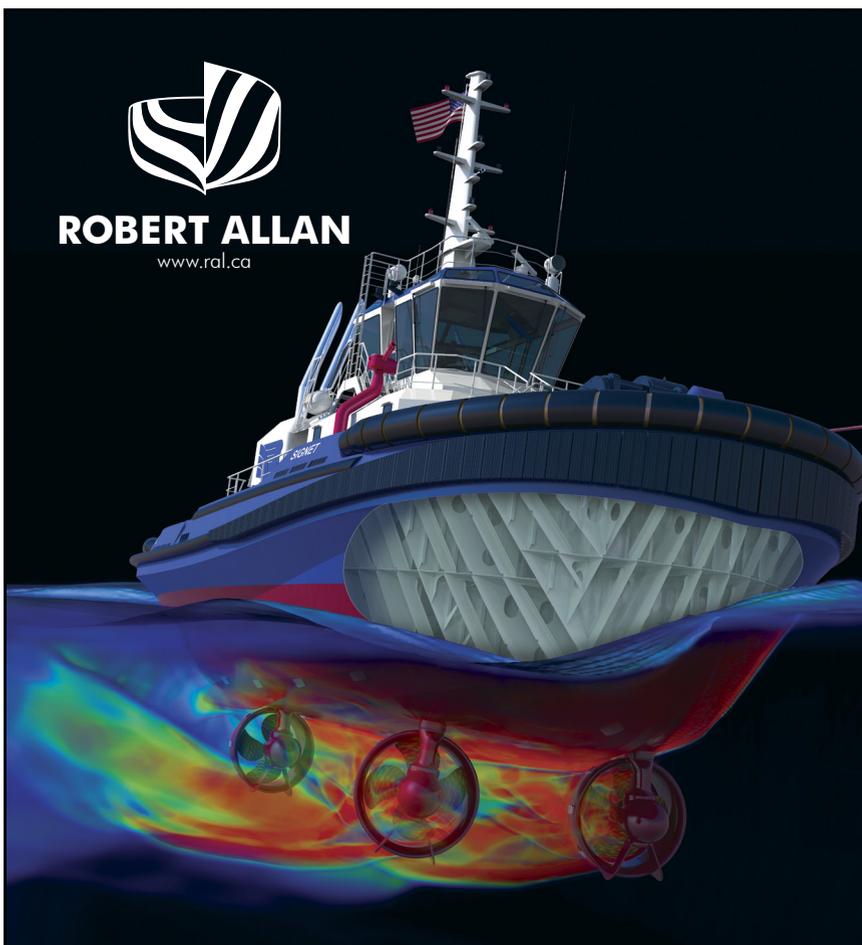
ROBERT ALLAN

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manager and quality manager. Just last year, I was promoted to the role of task manager, where I oversee a team of researchers and other contract staff. I have finally found a place where I feel like I fit, where I enjoy my work and the company of the people I work with, and feel fulfilled for the eight hours a day I'm at work. Best of all, I don't worry about work once I leave for the day.

My advice to anyone considering this kind of change is to be open-minded in your job hunt. You never know who may be looking for someone with your skills (and you have a lot of them). You need a resume that you can post to online job boards, as well as LinkedIn. If you graduated from a maritime academy, use your school's career resource center, or find an online resource to help with resume development and editing.

If you are looking for a specific job, tailor your resume to that job using key words from the posting. For example, I edited my resume for my facilities manager job to include topics such as maintenance, safety inspections, recordkeeping and handling audits with the USCG and OSHA. In the interview, I argued that taking care of a ship is like taking care of a facility, and that turned out to be a compelling point for the hiring panel. Most importantly, remember that you can do it, help is there for you if you need it — and, in the end, it's all worth it.



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Cruise ships are not the answer for more U.S. maritime jobs

by Capt. Robert Allee

Editor's note: *The following letter responds to Capt. Sean Tortora's article "Americans pay for cruise industry's flags of convenience" that ran in Professional Mariner's Oct.-Nov. issue.*

Capt. Tortora wonders how many Americans planning on cruising would be appalled to know there is only one U.S.-flagged ocean cruise ship, while all others operate under flags of convenience (FOC). The answer: They wouldn't care.

Cruising is popular because the model works. The reason there are no other cruise ships in the American flag is that it wouldn't work, at least not without major economic and cultural changes in the U.S. If one would recall, the agreement with Norwegian Cruise Line to operate a U.S.-flagged cruise ship between the Hawaiian Islands required them to operate an American-built ship. That didn't work out, and it required them to operate a U.S.-flagged ship out of New York. That didn't work either.

Tortora also intimates that FOC ships may not be safe despite STCW requirements. He says foreign states may not have the resources to ensure compliance. But compliance is effectively ensured by the classification society (in many cases the American Bureau of Shipping). And the foreign state doesn't pay for that certification — the cruise line does. Compliance is further assured by the port state inspection process. As far as corruption and graft in foreign states ... well, I wish the U.S. was free from that, but evidence suggests otherwise.

Tortora correctly notes the wage differential between foreign crewmembers and their U.S. counterparts. But trying to operate a cruise ship with an American crew would triple the wage cost, and work rules demanded by union contracts would impact service levels on the cruise. FOC ship wages are determined by the market; if they weren't adequate, they would not be able to get workers. And while the wages are lower than they would be for Americans, the pay is good in crewmembers' home countries. If crewmembers of cruise ships that operate out of the U.S. and other developed countries were abused, passengers would see it for themselves. And the Maritime Labor Convention addresses those practices.

Claiming cruise ships are a defense asset needed to transport troops in case of war is a non sequitur. With one very minor exception, no ship has been used to transport troops since early in the Vietnam War. I doubt any current defense plan calls for troop ships.

Capt. Tortora's suggestion that the "government" require cruise lines to re-flag in the U.S. would destroy major segments of the industry. Cruises from U.S. ports would become unaffordable, and cruise lines would simply find ways to get U.S. passengers to foreign ports to start and end their cruises.

As it is, FOC ships create many U.S. jobs. These are in the offices, in husbanding services, in inspection services and in shipboard entertainment. And, there are U.S. citizens in the marine crews (admittedly not many, but there

is no prohibition). The ships pay U.S. port, pilot and tugboat fees. They buy U.S. fuel. The U.S.-based parts of the corporations and the people who work for them pay U.S. taxes.

If we're looking for ways to increase employment for American seamen, cruise ships are a poor place to look. Better to ask such questions such as: How is it that one of the largest and most successful shipping lines in the world is in Denmark, and not in the U.S.? How is it that high-wage countries such as France, Germany, Italy and others can build cruise ships and we can't? How is it that Korea, Japan and other countries with unionized workforces can build ships for foreign trade, and we can't? Why can't we compete based on the regulatory requirements and costs to maintain a ship in the U.S.? Why are the Scandinavian countries the leaders in non-military maritime technology and not the U.S.? How is it that ships that we pay millions to subsidize (i.e., MSP) are not built in America?

I'm an American seaman and proud of the history and contributions of the U.S. Merchant Marine. But a successful industry cannot be built on government subsidy and demands. How we lost the competitive edge in shipping and shipping technology is a complicated issue. Getting it back first requires being able to compete. •

Capt. Allee (ret.) is a graduate of the U.S. Merchant Marine Academy. He commanded destroyers, prepositioned ships and other vessels during his career in the Navy and U.S. Maritime Service.

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give small gifts to each crewmember on board. Plus, the “goodwill” created by working over the holidays often extends to extra time off later in the year, when human resources acknowledges your “sacrifice.” I have used this many times to get a longer vacation with my family during the summer.

You might also be able to pick and choose job opportunities that you would not otherwise have. One year when I made myself available for work at Christmas, a crewing coordinator called me, offering a chief mate position on an oceanographic ship heading over to the Mediterranean — a place I had

never been before. We worked out of Ancona, Italy, went through the Greek Islands, and I got off the ship in Istanbul, Turkey, where I flew to Athens, Greece, for the first time to meet my relatives on my mother’s side, creating relationships that continue to this day.

Which brings us to the biggest complaint mariners make about working over Christmas: not being with their family. With the extra money I’ve made, I’ve taken my wife to places we had always wanted to go, during the coldest time of year in the Pacific Northwest. Together, we met my relatives in Greece, and warmed ourselves in the Mediterranean sun. In other years we met in

the Caribbean, or on the Hawaiian Islands.

Why just dream of paying off your bills, or yearn to visit exotic warm places and sun filled beaches in December? Try something different and work the holidays, then celebrate Christmas in January.

Till next time, I wish you all happy holidays and smooth sailin.’ •

Capt. Kelly Sweeney holds the license of master (oceans, any gross tons) and has held a master of towing vessels (oceans) license as well. He has sailed on more than 40 commercial vessels and lives on an island near Seattle. He can be contacted by email at captswweeney@outlook.com.



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A Mariner's Notebook

by Capt. Kelly Sweeney

Working the holidays can pay – in more ways than one

We had just cleared the Panama Canal's Miraflores Locks west-bound on the Pacific side. I was the second mate on a tug pulling a loaded 450-foot petroleum barge from Lake Charles, La., and

Beaumont, Texas, to Long Beach, Calif. It had just turned midnight, the start of Christmas Day.



Jerry, the able seaman

on my watch, came up to the wheelhouse after making his round of the vessel. Looking morose, he sat down heavily on the settee and heaved a big sigh.

"What's up?" I asked, "You look down in the dumps."

He replied, "Oh, just bummed to be at sea on Christmas. Missing my wife and family."

Then, turning to look directly at me he said, "For some reason you seem to be in a great mood. Why's that?"

I reminded him that Christmas Day and New Year's Day are overtime days. "We'll get double the money for doing the same job we always do. So yeah, I am definitely in a good mood."

It was my dad, who sailed for years as an able seaman and boatswain, who convinced me working during the holidays was a good career move. After getting hired by a large West Coast towing company, I was getting bounced around filling in for deck hands and able seamen on vacation. It had been six months and I had not yet been assigned to a steady vessel nor sailed on my license. I complained about this to my dad during a phone call home.

"Here it is, November, and I am back at my apartment waiting for my next job, and don't even know when I will be working again," I lamented.

"Back when I went to sea," he shot back, "there were a lot of guys who got either their first job or a promotion by working

during the holidays. In fact, that's how I got my start, snagging a job as a coal passer on the Great Lakes by working over Christmas. So, the first thing tomorrow, Kelly, you call the port captains and let them know that you are available and very interested in working the holidays."

After following his advice, the next week, one of the port captains promoted me to my first officer's billet as second mate on a 5,000-hp tug for a trip beginning in mid-November until around the first or second week of January.

Breaking into the business for your first job or getting a sought-after position are excellent reasons why mariners should consider making themselves available at Christmastime.

Another good reason to work over the holidays, as I told Jerry, is money. Many people go into debt at Christmas, but working then is a great time to get ahead financially. I've been willing to sail any time from October through

February, and always told that to the "powers that be." The human resources guy at a tanker outfit took me at my word and called me to work every holiday season I was with that company. My "dream" work tour, which I actually managed to do once, had me joining just before Veteran's day in mid-November and getting off just after Martin Luther King Day in mid-January — making double pay for all five winter holidays. Ten days' pay for five days work — happy holidays, indeed!

When at sea, a "holiday routine" also applies on board, which usually means just standing watch and no mandatory overtime doing the regular maintenance — often making the job easier than normal. Plus, you can guarantee the food will be better, as Thanksgiving, Christmas and New Year meals will be special offerings from the steward's department. Even the captains recognize the time of year, and many

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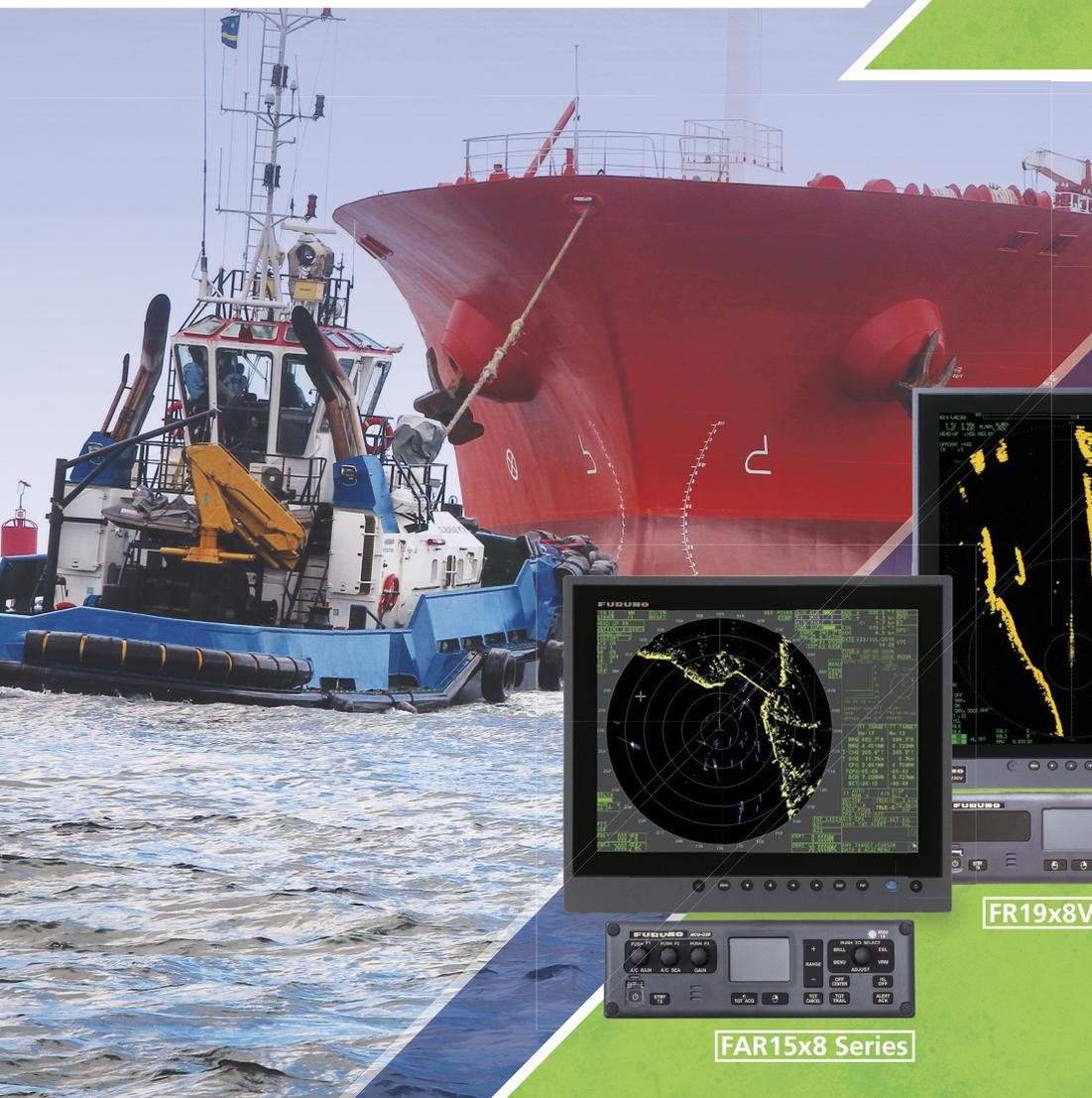
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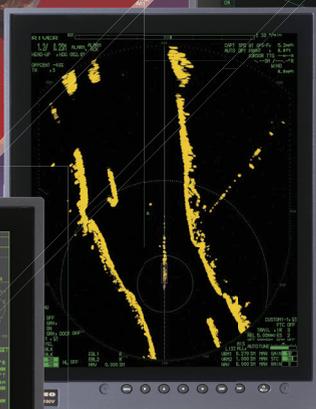
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