

Casualties: Veteran Sandy Hook pilot dies after falling from containership

PROFESSIONAL MARINER

JOURNAL OF THE MARITIME INDUSTRY

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**NTSB calls out
Coast Guard on
duck boat safety**

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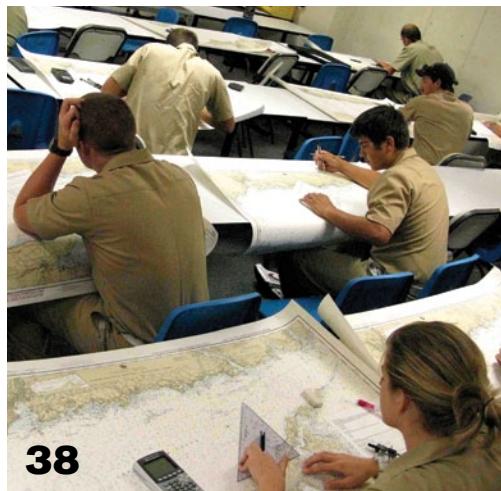
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Editorial

editors@professionalmariner.com

Editor Rich Miller
Associate Editor Casey Conley
Copy Editor Kate Murray
Art Director Kim Goulet Norton
Gulf Coast Photographer/Correspondent Brian Gauvin
West Coast Photographer/Correspondent Alan Haig-Brown
Columnist Capt. Kelly Sweeney

Advertising

advertising@professionalmariner.com

West Coast/Canadian/International Susan W. Hadlock
207-838-0401
East Coast Charlie Humphries
207-939-1929
Gulf/Midwest Arthur Auger
207-577-3257
Publisher Alex Agnew
207-450-5363

Circulation/Events

Events & Marketing Coordinator Lee Auchincloss
207-772-2466 x225

Business

Business Office Lee Auchincloss

Customer Service: 1-866-918-6972
All Other Departments: 207-772-2466
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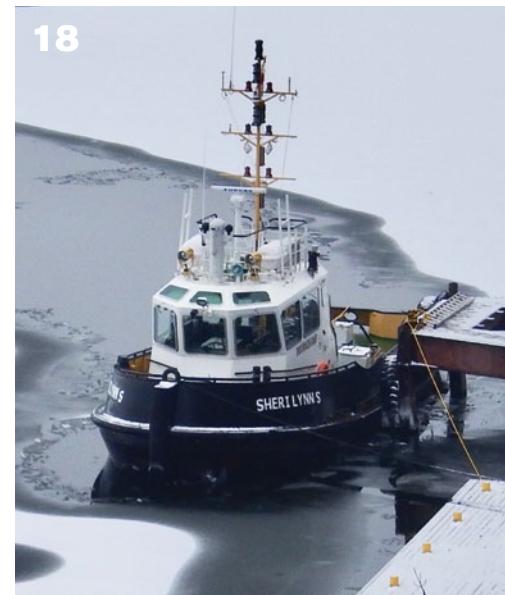
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ON THE COVER

The 6,000-hp tugboat *James A. Moran* maneuvers around the bow of the containership *CMA CGM Florida* as it leaves the North Charleston Terminal in South Carolina's Cooper River. It was just the first job of many for the tug on a busy day in the busy Port of Charleston, which is handling ever-larger boxships and strong growth in other cargo. See story, page 14. Photo by Casey Conley



Signals



Courtesy Adelte e Pribyl

NTSB: Coast Guard failed to adopt key safety rules for duck boats

Current and former National Transportation Safety Board (NTSB) officials say that implementing past safety recommendations for duck boats could have prevented the *Stretch Duck 7* tragedy in 2018 that claimed the lives of 17 people.

In November, the NTSB issued Marine Safety Recommendation Report 19/01 requesting that the Coast Guard require “sufficient reserve buoyancy for DUKW amphibious passenger vessels,” as well as the removal of canopies and framing while the vessels are underway. According to the report, the NTSB made the same recommendations after the duck boat *Miss Majes-*

tic sank in Arkansas in 1999, killing 13 people.

Stretch Duck 7, a modified World War II amphibious vehicle, was carrying 31 people when it sank in Table Rock Lake near Branson, Mo., on July 19, 2018, during a rapidly developing high-wind storm. The captain of the vessel and two other employees of tour operator Ripley Entertainment have been indicted by a federal grand jury on multiple counts of negligence and misconduct.

“Lives could have been saved, and the *Stretch Duck 7* accident could have been prevented had previously issued safety recommendations been

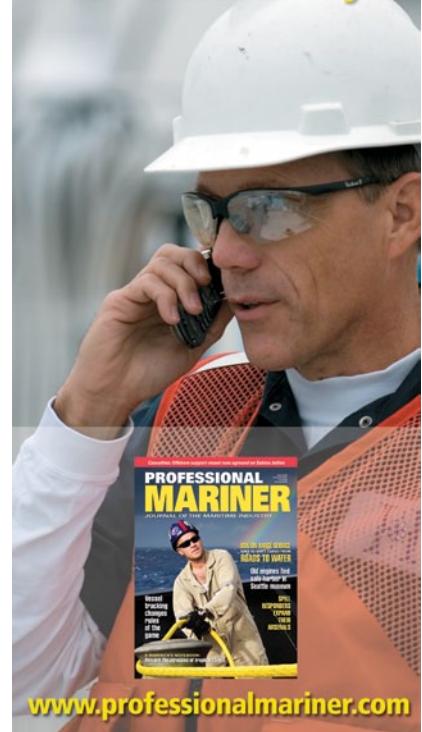
implemented,” NTSB Chairman Robert Sumwalt said in the November report.

Jim Hall, who served as the agency’s chairman from 1994 to 2001, also cited the Coast Guard’s failure to follow through on NTSB recommendations after the *Miss Majestic* incident.

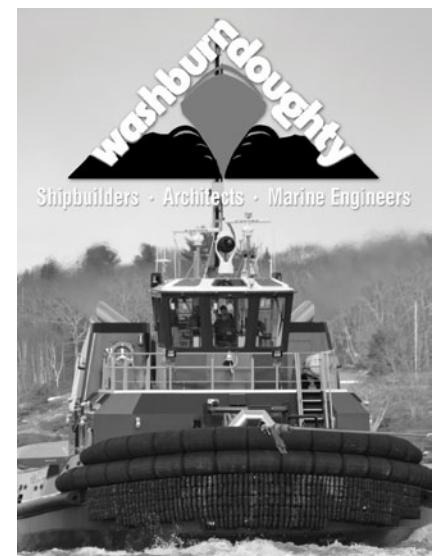
“To me, the loss of lives (in Missouri) is almost a criminal act because we have invested so much

Amphibious vessels operated by Ride the Ducks transit Puget Sound near Seattle in 2015. The NTSB says the Coast Guard did not heed the agency’s recommendations in 1999 to increase reserve buoyancy on the vessels and remove canopies while underway.

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of the taxpayers' time and money to outline pretty clearly what was necessary for boats to be operated successfully," he said.

The Coast Guard has implemented nine of 22 NTSB recommendations pertaining to duck boats since 1999, but it did not take action on previous recommendations about reserve buoyancy and side canopies, according to the NTSB's November safety report.

Increasing reserve buoyancy would ensure that a vessel remains on the surface during a flooding event, allowing more time for those on board to evacuate. Reserve buoyancy can be increased through compartmentalization and adding flotation material to the vessel.

"For those vessels without reserve buoyancy, removal of the canopies, side curtains and supporting structure will improve the passengers' and crew's ability to escape, should it be necessary to evacuate the vessel," NTSB spokesman Keith Holloway told *Professional Mariner*.

The Coast Guard's Marine Board of Investigation is still reviewing the *Stretch Duck 7* sinking to determine the cause and contributing factors. The NTSB had not completed a full inquiry into the incident as of early January.

Two weeks after *Stretch Duck 7* sank, the Coast Guard issued Marine Safety Information Bulletin 06-18 to raise awareness about the operational limitations of amphibious passenger vessels and inform operators of their obligations. The Coast Guard issued guidance in 2000 urging its inspectors and vessel owners to evaluate

canopy design and installation, according to the service.

While there are no pending regulations pertaining to amphibious vessels, "the Coast Guard is undertaking a new review of amphibious vessel canopies and reserve stability based on the NTSB's re-issuance of the related recommendations, and we are focusing on these issues as part of our Marine Board of Investigation," Coast Guard spokeswoman Lt. Amy Midgett said in an email. "The Coast Guard will closely consider any forthcoming recommendations to improve survivability on amphibious duck vessels."

The Coast Guard Office of Investigations and Casualty Analysis (CG-INV) oversees the consideration of NTSB recommendations by relevant Coast Guard program offices. Within a typical time frame of 30 days, CG-INV then drafts a formal response for internal review.

"The signed letter is then transmitted to the NTSB, and the recommendations are added to the Coast Guard's internal tracking system, where the status of any implementing actions ... (is) tracked and periodically reported to the NTSB until complete," Midgett said.

The NTSB considers its recommendations on buoyancy and canopies critical to improving safety for duck boat passengers and crew. While incidents are relatively rare, the potential consequences "make it critical that the recommendations (in report 19/01) be acted on positively and in a timely manner by the Coast Guard," Holloway said.

Sam Bojarski

OSHA orders Bouchard to compensate fired whistleblower

The Occupational Safety and Health Administration (OSHA) has ordered Bouchard Transportation Co. to compensate a barge worker who the agency said was illegally fired after reporting safety concerns to the Coast Guard.

OSHA's decision, made public in December, followed the deaths of two Bouchard employees when barge *B. No. 255* exploded off Port Aransas, Texas, on Oct. 20, 2017. A brother of one of the victims claimed Bouchard fired him after the incident for cooperating with investigators. The employee

was not identified in keeping with OSHA policy.

"Bouchard Transportation Co. — a petroleum barge company based in Melville, N.Y. — and its officers violated the whistleblower protection provisions of the Seaman's Protection Act (SPA) when it retaliated against a seaman who cooperated with U.S. Coast Guard," OSHA said.

Investigators from the agency's Whistleblower Protection Program concluded that actions taken by the company, President and CEO Morton S. Bouchard III, Brendan

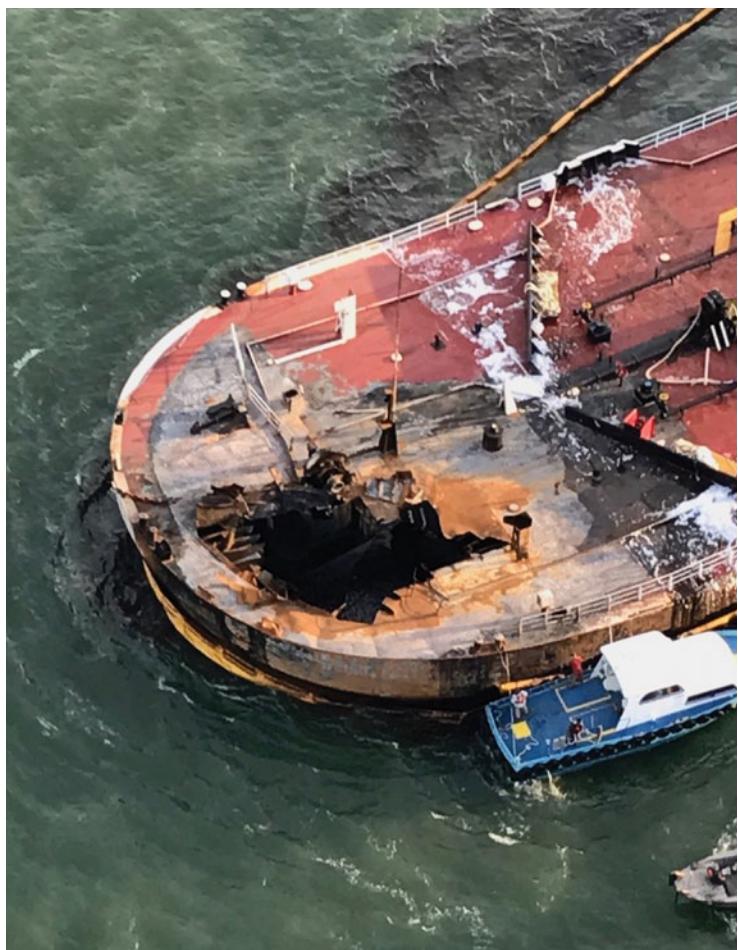
Bouchard and Kevin Donohue "constituted retaliation ... and would dissuade a reasonable seaman from reporting safety issues." Brendan Bouchard is vice president of sales and operations; Donohue is chief operating officer.

Bouchard Transportation did not respond to requests for comment.

In a report released in May, the National Transportation Safety Board (NTSB) concluded that the fatal explosion and fire on *B. No. 255* — part of an articulated tug-barge unit with the tugboat *Buster Bouchard* — was the result of a lack of effective maintenance and safety management by Bouchard Transportation. The agency said the explosion was caused by the ignition of flammable vapor that formed in a void space. The vapor was from crude oil that leaked into the space from the No. 1 port cargo tank through a corroded bulkhead.

Two barge crewmembers who were on the bow — Zachariah Jackson, 28, and Du'Jour Vanterpool, 26 — were killed. About 2,000 barrels of crude oil spilled from the barge or was consumed in the ensuing fire. The barge sustained more than \$5 million in damage and was scrapped. The tugboat was not damaged. The NTSB concluded that Coast Guard inspectors who examined the barge prior to the incident failed to identify unsafe conditions.

Under the SPA, reporting alleged violations of maritime safety laws and regulations, cooperating with



Two Bouchard Transportation employees were killed when barge *B. No. 255* exploded off Port Aransas, Texas, on Oct. 20, 2017. One of the victims' brothers claimed he was fired afterward for cooperating with Coast Guard investigators.

Coast Guard safety investigations, and furnishing information about a maritime casualty resulting in death are protected activities.

The seaman engaged in protected activity beginning several days after his brother's death, OSHA said, and was fired just over three months later. The company gave him no reason for the termination on Jan. 31, 2018.

OSHA preliminarily ordered Bouchard to pay the seaman:

- Back pay with interest plus compensatory damages for losses to his 401(k).
- An additional two years of lost wages in lieu of reinstatement.

• At least \$50,000 for emotional distress, pain and suffering, loss of reputation, and mental anguish.

• At least \$200,000 in punitive damages for the company's "reckless disregard for the law and callous indifference for seamen's rights under the SPA and egregious conduct."

OSHA ordered Bouchard to refrain from making "any adverse statements with respect to the seaman's termination and/or any of the facts at issue in this case."

Bouchard was also instructed to train its managers and employees about seamen's rights under the SPA without fear of retaliation, and

provide proof of the training to OSHA within 60 days of receiving the preliminary order.

"This case revealed troubling safety violations in the wake of a seaman's death, and it exemplifies how a culture of intimidation can have disastrous results for seamen," OSHA Regional Administrator Richard Mendelson said. "Employers and vessel owners must know and respect that the Seaman's Protection Act safeguards seamen's cooperation with (the Coast Guard) and other safety investigations and the reporting of safety concerns."

Bill Bleyer



Moran Charleston
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Coast Guard idles 24 NY Waterway ferries for damage, deficiencies

The U.S. Coast Guard ordered two dozen NY Waterway ferries out of service in late November and December because of maintenance deficiencies.

Sector New York took the action and increased the frequency of inspections after finding problems with unreported collision damage, improperly maintained

commutes, and we will continue to work with NY Waterway to ensure sustained compliance with Coast Guard safety requirements. As part of this effort, we will be increasing both scheduled and unannounced inspections of their fleet moving forward."

NY Waterway, which operates 32 ferries in the New York area,



Coast Guard Petty Officer 1st Class Matthew Massey, right, inspects a NY Waterway ferry with the help of a crewmember on Nov. 23. The Coast Guard inspected all of the company's operational ferries in less than two weeks.

U.S. Coast Guard photo

fire and dewatering systems, expired lifesaving equipment and other issues.

As of mid-December, when a 24th vessel was ordered out of service, six ferries were still not allowed to operate, according to Cmdr. Jake Hobson, chief of inspection for Sector New York.

"The safety of the passengers that ride these ferries is our top priority," said Capt. Jason Tama, commander of Sector New York. "We expect passenger vessels to be in compliance with safety standards and ready for inspection at all times. We know many people rely on these ferries for their daily

declined to comment on the Coast Guard action.

Hobson said the decision to remove 23 ferries from service the week before Thanksgiving followed a series of interactions with the company.

"We've actually had the NY Waterway management in a couple times over the late summer and early fall," he said. "As we had been noticing on our annual routine inspections, there was quite a spike in the number of issues. Some of the issues we were finding were severe."

Hobson said the Coast Guard brought in the company's manage-

ment in late July and continued to conduct inspections.

"(Inspectors found) fairly significant deficiencies on the boats. Typically when we go out on an inspection, it is not irregular for us to have two or three items that we have to write up that we potentially have to go back or get more documentation on to ensure the vessel is in full compliance," he said. "But when we start to go out and start writing a dozen, 15 or 18 deficiencies on an annual inspection after the operator called us and said the boat is ready for the annual inspection, that starts to concern me."

There are two scopes of inspection. One is a certificate of inspection (COI) examination done once or twice in a five-year period. "That's a very deep dive where we're looking at everything (including) the clips that are holding the wires in the engine room. We spend a day on the boat. We also do an annual inspection where we are there basically to verify that the maintenance is in compliance and they're not having any issues that we can see."

The Coast Guard also checks the crew's ability to conduct fire drills and man-overboard drills, and that the vessel can operate properly underway. An out-of-water hull inspection is conducted at least every two years.

Structural damage and lack of maintenance on firefighting and dewatering systems were the most

serious problems uncovered in the recent NY Waterway action, Hobson said.

"We found damage on vessels that were in service that had not been reported to the Coast Guard in two cases," he said, adding that it was likely caused by hitting a dock. "It's never flat calm in New York Harbor and they're docking and undocking and doing many maneuvers, so it's not unheard of for a vessel to careen up against the pier and have a 2- or 3-foot wake come in from another vessel and cause damage. But then we would expect the boat to be removed for service and a report and follow-up to ensure that the work was done properly to get the boat back in service."

Hobson said in mid-December that all of the structural damage had been repaired, but inspection of other vessels was continuing.

“As we had been noticing on our annual routine inspections, there was quite a spike in the number of issues. Some of the issues we were finding were severe. ”

Cmdr. Jake Hobson,
Coast Guard Sector New York

Another ferry was taken out of service that month for the same problems.

"We want to make sure that they are being maintained safely. They've kind of let things slide a little bit from a maintenance perspective," Hobson said. "It's not

something that we never see on other boats."

He said the frequency of inspections would be increased for all 200 ferries operated by nine companies in the New York area.

"We haven't had this kind of systemic problem with the other companies," Hobson said. "We trace it back to improper implementation of a safety management system."

The Coast Guard has met several times with NY Waterway officials on development of an improved management system. Hobson said there has not been a similar problem with other ferry companies in other cities.

"We're not seeing it as a Coast Guard-wide issue," he said.

The region's ferry operators carry tens of millions of passengers annually, making it one of the busiest ferry networks in the world.

Bill Bleyer

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INTERCONTINENTAL
ENGINEERING MANUFACTURING CORPORATION

Mass. Maritime opens training center for offshore wind workers

A new Massachusetts Maritime Academy facility to train and certify offshore wind workers is the first of its kind in the country. The state contributed \$1.73 million to its development, a nod to the rapidly emerging wind power industry in the region.

"This facility is an example of how all things maritime can meet the energy sector," Mass. Maritime President Rear Adm. Francis McDonald said at the opening ceremony in Buzzards Bay on Oct. 24.

The school first looked into the need for such a facility in 2011 when Cape Wind, an ill-fated offshore project, was initially proposed for Nantucket Sound. Wind companies will pay tuition for workers to undergo coursework at Mass. Maritime. Though the training does not result in credit hours earned, graduates will be certified with the nonprofit Global Wind Organization (GWO), which logs and tracks their credentials for employer verification.

Open-sea wind turbines are typically larger than onshore versions and include mooring for support vessels that deliver supplies and crew. The training facility includes an indoor climbing area and a modified Carolina Skiff rigged to mimic a typical crew transfer vessel.

Instructors are a mix of existing staff and outside experts in specialty areas. Mass. Maritime partnered with Copenhagen-based RelyOn

A crew transfer vessel approaches a wind turbine in the Baltic Sea off Germany. Wind farm development off New England has given rise to a Mass. Maritime facility to teach the skills needed to safely service the towers.

U.S. Department of Energy photo



Nutec to train the instructors to deliver curriculum that meets GWO industry standards. The initial basic safety training course covers first aid, manual handling, fire awareness, working at heights and sea survival.

The U.S. Department of Energy predicts that more than 43,000 new jobs will be created nationwide by 2030 in the offshore wind market. In the Northeast alone, wind power is expected to generate 2,000 to 3,000 jobs, with economic impacts between \$1 billion and \$2 billion.

Massachusetts has the largest technical offshore wind potential by wind speed of any state in the

U.S., according to the National Renewable Energy Laboratory. In 2016, Gov. Charlie Baker signed a bill requiring state utilities to move toward more renewable energy sources, including onshore and offshore wind.

"Offshore wind is a crucial part of our administration's climate strategy," Lt. Gov. Karyn Polito said at the facility's opening. "It is vital that we have a skilled workforce ready for jobs that will bring new opportunities to many residents in the commonwealth."

Several offshore projects have been proposed or are currently under development in Massachusetts, including Vineyard Wind,

an 84-turbine farm about 15 miles off the coast of Martha's Vineyard, and the New England market is growing more competitive. Rhode Island-based Deepwater Wind built the country's first commercial offshore wind farm off Block Island in 2016. Two years later, Danish wind giant Orsted bought the company, signaling its attraction to the Northeast.

New Bedford-based Vineyard Wind contributed \$200,000 to Massachusetts' Offshore Wind Workforce development program, which provided grants to six academic institutions and labor organizations for training, including \$184,000 to Mass. Maritime for curriculum development.

Though Vineyard Wind's \$2.8 billion offshore farm is stalled while under federal review, CEO Lars Thaaning Pedersen said training and certification efforts are critical to the ultimate success of both the project and his company.

Globally, the industry is expected to become one of the largest electricity producers in the next decade. As the industry grows, so does the size of the turbines — some have rotors with a wingspan of almost 600 feet. Since the first offshore turbines began producing energy in 1991, their output and efficiency has increased by about 30 times as the cost has fallen to about half that of nuclear power. An offshore farm in the North Sea can produce up to 6 gigawatts of electricity, about the same as five large nuclear plants.

Chris Bernard

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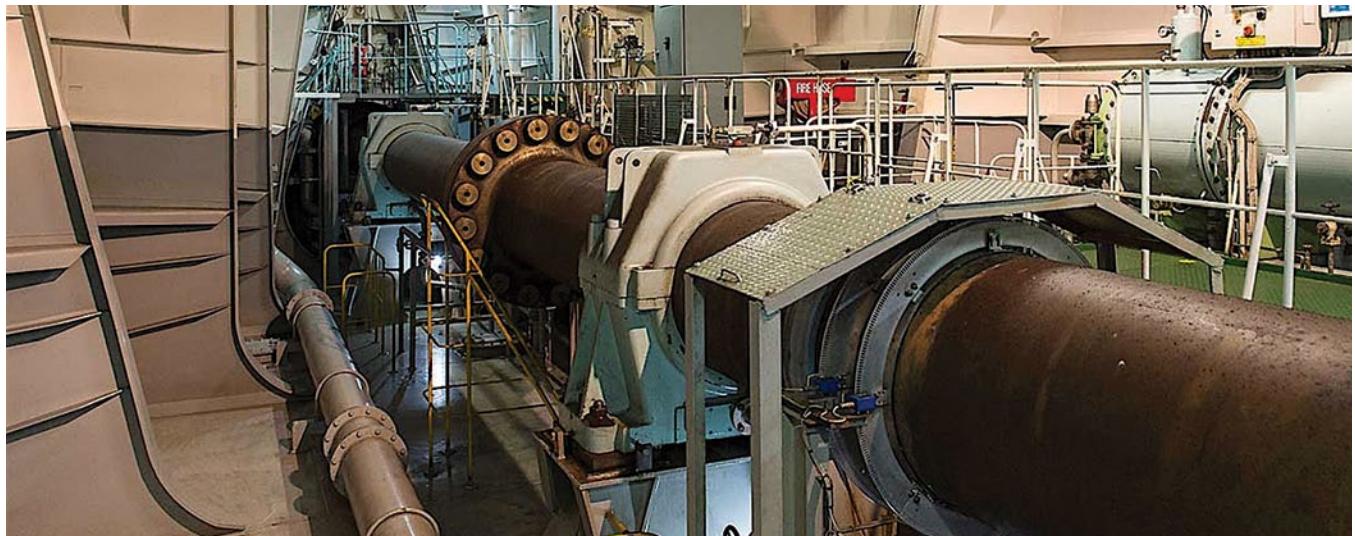
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Courtesy DNV GL

Shaft bearing study finds EALs perform well in ‘most situations’

Phase one of a new study by the classification society DNV GL has found that environmentally acceptable lubricants (EALs) are as safe as mineral oil-based lubricants for shaft bearing applications in most conditions, except when temperatures are low and oil-film pressure is high.

The study was prompted by an increasing number of stern-tube bearing failures after the Environmental Protection Agency (EPA) began regulating the use of mineral oils in “oil-to-sea interfaces” in late 2013. Affected vessels in U.S. waters are required to use environmentally acceptable lubricants that biodegrade.

Multiple factors can cause problems in stern tubes, but questions regarding the role of EALs in the failures prompted DNV GL to conduct the study to understand how EALs per-

form compared to traditional mineral oils. The first phase of the research focused on the viscosity of EALs and mineral oils when influenced by temperature, pressure and shear rate.

“While the new eco-lubricants perform well in most situations, there are extreme, transient load conditions where their pressure- and temperature-related viscosity properties are inferior to that of mineral oil equivalents, providing less protection against bearing failure,” DNV GL said. Instances where this was a factor in recent bearing failures were “hard maneuvering at high speeds (high pressure), mooring trials (low temperature and high pressure), and operating with a partly submerged propeller (high pressure).”

Based on these findings, DNV GL lubrication criteria specify a viscosity factor of .075 for non-mineral lubrication oils to main-

The DNV GL study was prompted by a surge in stern-tube bearing failures that coincided with the increased use of EALs after the implementation of regulations in 2013 requiring their use in commercial vessels trading in U.S. waters.

tain the required safety margins. This update is included in the July 2019 rule edition but is not retroactive for vessels operating under older applicable DNV GL rules. The classification society also recommends optimizing the aft stern-tube bearing layout to fit the propeller shaft “across a range of operating conditions.”

“Shaft alignment has always been important, but with the thinner operational fluid film of some EALs, it is even more critical,” said Phil Cumberlidge, business development manager for Panolin’s GreenMarine range of EALs. “But we are dealing with microns of film thickness here. Shipyards cannot really achieve that degree of align-

ment to compensate for those EALs that have a thinner oil film thickness."

Shipowners are nervous when it comes to EALs, and they have every reason to be, Cumberlidge said.

"It is a costly process to dry-dock a vessel to scrape out stinking sludge, replace seals and replenish with fresh EALs," he said.

Cumberlidge recommended that vessel owners investigate all types of EALs considered biodegradable, including fully synthetic saturated ester, non-emulsifying EALs. He also advised shipowners to ask lubricant vendors about any reported problems.

Others advocate for an entirely different solution. In a company letter to customers after DNV GL's report, Craig Carter, director of marketing and customer service at Thordon Bearings, said he would not be surprised if classification societies "start to revise their shaft alignment and withdrawal rules for bearings using this kind of lubricant."

"There is no doubt that lubricating white metal bearings with biodegradable oil can be technically and commercially risky," he said. "With mineral oil-based lubricants now rightly regarded as environmentally unacceptable, the only proven EAL option available for lubricating the propeller shaft bearing is seawater."

Regarding seawater as a lubricant, a DNV GL representative said during a webinar presenting the study findings that "open and closed water-lubricated solutions are a completely different design solution with different bearing materials than the oil-lubricated, white-metal bearing designs. Assessing the performance of seawater-lubricated systems would require different testing (than what is being done) as part of the EAL study."

In the next two phases of the EAL study, DNV GL will assess oil-film forming capabilities, mixed/boundary lubrication behavior, and lubricant degradation (medium and long term). •

Traci Browne

In memoriam Susan Buchanan

Maritime journalism lost a valuable member of its community with the passing of Susan Buchanan, 67, on Nov. 22, 2019.

The New Orleans resident was a longtime freelance contributor to *Professional Mariner*, specializing in Gulf Coast coverage but capable of handling a wide range of industry topics with thoroughness and skill. A member of the Press Club of New Orleans and the Louisiana Press Association, she was an award-winning writer whose articles also appeared in The Wall Street Journal, Huffington Post, Barron's and The Louisiana Weekly.

"It is a testament to Susan's steely will and commitment to journalism that, unbeknownst to most, she was quietly penning articles even during the final weeks of a battle with cancer," stated her obituary in The Times-Picayune. "Susan inspired family and friends with her relentlessly positive outlook, leaving them with a model for how to live."

Her professionalism, dedication and kindness will be greatly missed.

Rich Miller

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Towing

Story and photos by Casey Conley

Moran tugs power up to meet new demands in Port of Charleston

James A. Moran idled alongside an empty bulk carrier moored in South Carolina's Cooper River as an aluminum skiff zipped back and forth, releasing the ship's mooring lines. Soon the bulker was free, and the 6,000-hp tug on its starboard quarter held the vessel in place as the wind and current nudged the hull.

"We're going to kind of hold them up," Capt.



The 6,140-hp *Elizabeth Turecamo* chugs down the Cooper River toward the North Charleston Terminal. Each October, every tug in Moran's fleet has its "M" logo painted in pink in recognition of Breast Cancer Awareness Month.

Bobby McGuire said of the bulker *River Pearl*, which was setting sail from a mid-stream mooring field near the North Charleston Terminal.

"We are going to be their stern line and just kind of hold them up here."

The job of holding, and

eventually turning, *River Pearl* was the first of two back-to-back jobs for James A. Moran and its 6,140-hp, 110-foot counterpart *Elizabeth Turecamo*. James A. Moran pushed away from the North Charleston container port about an hour earlier on a sunny, warm fall afternoon and headed northeast.

The midstream mooring field occupied by *River Pearl* and another bulker lay less than a mile ahead

in a quiet stretch of the Cooper River well north of Charleston's historic downtown. For much of the previous week, the 618-foot *River Pearl* offloaded scrap metal onto barges. Those vessels in turn carried the cargo to its final destination at the Nucor Steel Berkeley mill about 10 miles farther inland.

Midstream moorings like this one operated by Maybank Industries are common on the Missis-



Capt. Bobby McGuire brings James A. Moran against the bulker *River Pearl* at a midstream mooring field in the Cooper River.

sippi River but something of a rarity in big ports like Charleston. These facilities require a completely different process for tying up and releasing mooring lines. Crews aboard small skiffs set the lines, or release them depending on the circumstances, from buoys fore and aft of the ship.

Line handlers from Moran Environmental Recovery stood by as *James A. Moran* transferred docking pilot Warren Tawes and Charleston Branch pilot Doug Logan aboard *River Pearl*. From there, McGuire circled back around the ship and got a line on the port quarter. One by one, crews freed a line then zipped to the opposite side to release a corresponding rope.

With all of the lines clear, Tawes gave a series of tugboat engine orders to begin spinning the bulker's bow 180 degrees from north to south. *Elizabeth*

Turecamo pulled back on the starboard bow, while *James A. Moran* pulled on the port quarter. The empty bulker, drawing just 17.5 feet, offered little resistance. It dutifully swung around in what seemed like a matter of seconds, with neither tug expending more than 30 percent power.

The next job brought both tugs back to the vast container yard at North Charleston Terminal, where the 964-foot *CMA CGM Florida* was ready

to go. Working a containership is a more typical job for a Charleston-area tug crew. Based on local estimates, containerships account for about two-thirds of ship-assist work in the region.

That figure could grow as more cargo shifts to the East Coast aboard neo-Panamax ships. The South Carolina Ports Authority operates the North Charleston Terminal on the Cooper River, as well as the sprawling Wando Welch Terminal on the

foot gantry cranes have arrived at Wando to efficiently load and unload the increasing volume of cargo. Congress also has approved \$138 million to deepen the channel to 52 feet, allowing ever-larger ships to call on the region.

Port authority data suggests healthy growth is already occurring at the existing terminals. Charleston container volume increased 6.2 percent to almost 2.25 million TEU in 2019 through the end of November, according to

At right, Elizabeth Turecamo comes alongside CMA CGM Florida at the North Charleston Terminal. Containerships account for about two-thirds of ship-assist work in the port. Below, James A. Moran moves into position to pull the vehicle carrier Graceful Leader off the Columbus Street Terminal dock near downtown Charleston.



Wando River in Mount Pleasant. The authority is building a new container port in the Cooper River north of downtown Charleston called the Hugh K. Leatherman Sr. Terminal. It is set to open in 2021 and will eventually boost container capacity by 50 percent.

Meanwhile, three 155-

the latest port information. Break-bulk cargo grew more than 8 percent during that period.

Car carriers account for another big chunk of ship-assist work in Charleston. BMW, Mercedes and Volvo plants in South Carolina churn out thousands of luxury vehicles each month, primarily for

overseas markets. In the first 11 months of 2019, the city's terminals moved nearly 209,000 vehicles, a 1.6 percent gain over the same period in 2018. In November 2019 alone, nearly 20,000 vehicles rolled through Charleston.



Capt. Tucker Bates stands alongside one of the tug's MTU 16V 4000 Tier II engines. Each main is paired with a Schottel z-drive.

want to get it really slow," McGuire explained. "The wind can affect them a lot and blow them out of the channel. Basically, we are just there to manhandle them (into position)."

James A. Moran, delivered in 2011, is the first of

Moran's 6,000-hp, 93-foot escort and docking tugs built in Maine by Washburn & Doughty. More than a dozen sister tugs have been built over the years. McGuire said they are nimble, powerful and sturdy, adding that "it's almost like they have eyes."

"For an escort tug, (*James A. Moran*) is very maneuverable. It has some weight, so it can do a Wando escort," he continued. "When you do an escort, it'll shudder and then start digging, and you'll see the (winch) tonnage meter just drive on up."

Assisting the departure of the 5,100-TEU *CMA CGM Florida* at the North Charleston Terminal, *Elizabeth Turecamo* came along the starboard quarter while *James A. Moran* took a position on the starboard bow. Capt. Tucker

Moran and McAllister Towing, the two dominant tug operators in Charleston, bulked up their fleets recently to meet the changing demands and serve larger ships. Moran's three z-drive tugs based in Charleston each deliver at least 5,100 hp, and McAllister recently dispatched its newest 6,770-hp tug, *Capt. Jim McAllister*, to the city.

All of this power comes in handy for high-speed escorts involving the giant containerships calling on the Wando terminal. Crews usually get a line onto the ship's aft centerline chock, then drop way back to avoid the cavitation from the massive prop, McGuire said. From that position,

Bates relieved McGuire at the controls. Out on the bow, deck hand Harrison Hughes celebrated a near-perfect toss of the messenger line that wrapped itself twice around one of the containership's rails.

Hughes, like all Moran deck hands, wore a portable radio attached to his personal flotation device. After tossing the line, he looked back toward the wheelhouse to gauge whether his co-workers saw the feat. Bates, with a good-natured smirk, challenged him over the radio to do it again. Engineer Harry Nicholson, a 34-year Moran employee, was off watch below deck.

Both Moran tugs backed *CMA CGM Florida* away from the dock, first at 30 percent power, then up to half power. Bates swung around toward the bulbous bow as the containership

James A. Moran's crew takes a break after a busy day on the water. From left are Capt. Tucker Bates, Capt. Bobby McGuire, engineer Harry Nicholson and deck hand Harrison Hughes.



crept away from the terminal, leaving just a few feet between the vessel and *James A. Moran*'s rubber fenders.

He held this position for a minute or two, tracking sternward at 4 knots while the container ship moved deeper into the turning basin. Bates then swung around to *CMA CGM Florida*'s port-side stem. At Tawes' request, he applied full power. The tug shuddered as the twin 3,000-hp MTU mains and Schottel drives went to work. With help from *Elizabeth Turecamo* at the quarter, the ship's bow soon faced open water.

"Being right at the stem is the maximum leverage we can put on the ship to spin," Bates explained, noting that he learned the maneuver through touch and feel. It's one that requires full confidence in the tugboat, he said.

McGuire added that such forward placement

allows captains to best utilize the tug's horsepower. There's also a practical consideration. "If we land the tug on the shoulder and slide 200 feet forward, the tug's bow rubber and tires will put a 200-foot black mark on the ship," he said.

The job finished, *James*

A. Moran returned to the North Charleston Terminal dock just a few hundred yards away. The crew change was near. Moran's Charleston crews work seven-day hitches with 12-hour watches. The fresh crew had plenty of work scheduled for

overnight.

Bates, who joined the company 10 years ago, recalled the not-too-distant past when tugs would go long stretches without work. "That's going away, though," he said. "These days we typically work all through the day and well into the night."

In a busy port like Charleston, you'd expect nothing less. •

“The wind can affect (container-ships) a lot and blow them out of the channel. Basically, we are just there to manhandle them (into position). **”**

Capt. Bobby McGuire

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Will Van Dorp photo

Damen newcomer at Ontario port has line on versatility

by Will Van Dorp

Capt. Joe Farish departs *Sheri Lynn S.* after a day of duty at Picton Terminals on Lake Ontario. The Damen 1606 Stan ICE-class tug, built in China for H.R. Doornekamp Construction, handles tasks from ship assist to moving aggregate barges.

Capt. Joe Farish eased the tugboat *Sheri Lynn S.* off the Picton Terminals dock before 0730. It had snowed overnight, and the channel in from Lake Ontario was smooth on the calm, overcast December morning. With the tug's full-vision wheelhouse, Farish had visibility all around him. Looking forward, he could see one deck hand readying lines on the port bow, and he could turn to spot the

other clearing the remaining snow and ice off the spacious aft deck. Through the sky windows, an indispensable feature when docking and undocking ships, a crane and the top of the cliff beyond were visible.

The tug broke through ice near the dock while awaiting assist instructions from the bulk carrier *Lake Erie*. Radar and AIS displays showed the ship less than a mile off, invisible until first

a gray shape appeared, followed a few seconds later by the ship's navigation lights. Two days earlier, the first ice of the season had formed on the narrow end of the bay west of the Ontario port near the town of Picton. East of the terminals and toward Lake Ontario, ice had only formed overnight and was not yet covered by snow. Deck hands John "Sparky" Van Koughnett and Mike Lees had cleared all of the

snow and ice from the tug's open work space and readied the lines.

"*Lake Erie, Sheri Lynn S.* What is your intention?" radioed Farish, and a few seconds later came the response, "*Sheri Lynn*, we're going starboard side to."

Sheri Lynn S., a Damen 1606 Stan ICE-class tug, has worked the northeast corner of Lake Ontario and the St. Lawrence River as far downstream as Montreal since being delivered in November 2017. The Canada-flagged tug, owned and operated by

H.R. Doornekamp Construction Ltd., was built at a shipyard in Hunan, China. That Damen yard, one of 36 around the world, is located more than 700 miles from the sea on the Yuan River, a tributary of the Yangtze. The Stan designation refers to standard designs of different sizes ranging from the tiny 1004 (35 feet long) to the massive 4013 (133.6 feet long).

In Ohio, Cleveland's Great Lakes Shipyard is licensed to build Damen boats and currently is working on 10 tugs with the 1907 design (64 feet). The 1606s, like *Sheri Lynn S.*, are 55 feet

long with a 19.5-foot beam. Power comes from two Caterpillar C18 engines that generate a combined 1,216 horsepower at 1,800 rpm, turning two Kaplan II fixed-pitch propellers in 54-inch Optima nozzles. The exhaust is routed to the rear of the boat, allowing for visibility that would otherwise be obscured by stacks.



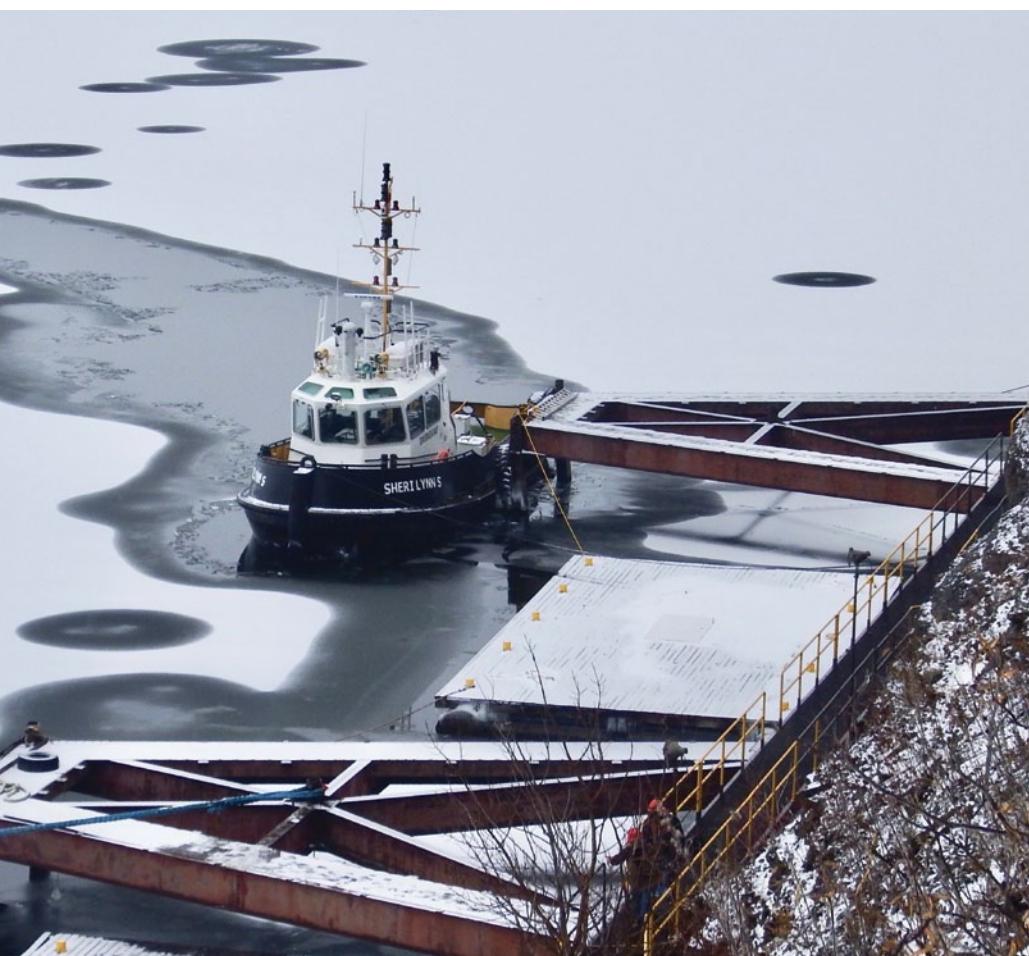
Courtesy Damen Shipyards Group

Above, *Sheri Lynn S.* is lowered into the St. Lawrence River in November 2017 after traveling from China to Canada on the deck of a heavy-lift ship. At right, deck hands John Van Koughnett, left, and Mike Lees secure the tug at the Picton Terminals dock, which is at the base of a 90-foot cliff. Self-unloading bulk carriers use long booms to move road salt to a storage area at the top.



Will Van Dusen photo

Picton Terminals is one of several businesses operated by the Doornekamp family based in Odessa, Ontario. In 2014, the Doornekamps purchased the dock and upland for redevelopment. The port was established in 1955, when Bethlehem Steel built it to ship ore from the company's mine in Marmora, Ontario, about 50 miles to the northwest. The ore traveled to Picton by train, then was loaded on bulk carriers for transport to Lackawanna, N.Y., at the rate of about 50 shiploads per year. The port closed in 1978 when mining at Marmora was no longer feasible after groundwater overwhelmed the pumps and flooded the mine. Minimal commercial activity took place at the port for several decades.



Will Van Dorp photos

About 100 ships and tug-barge units have called at Picton Terminals annually since 2014. Many of the “salties,” or saltwater ships like *Lake Erie*, request tug-boat assistance. Previously, a tug would be called in from Hamilton or Toronto, over 100 miles away on the opposite end of Lake Ontario. When Picton Terminals’ owner Ben Doornekamp explored the possibility of having a Canadian or U.S. shipyard build a tugboat to meet local needs, he learned it would take several years to obtain the right vessel from such a source. The Dutch shipbuilding company

Damen, on the other hand, could get a tug there in six months, shipped directly from Shanghai to Montreal on a heavy-lift vessel. “We were eager to use the tug on various projects, so timing from order to delivery, as well as price, sounded perfect to us,” Doornekamp said.

Since being redeveloped, Picton Terminals has handled aggregates, road salt and steel products. Aggregates are moved using the refurbished ship loader system that dates from the Bethlehem Steel days. Ferry dock and wind farm construction projects on nearby Amherst Island required 500,000 tons

Crews tending lines on the tug benefit from a walkaround deck at roughly eye level with the captain.

of aggregates, which were transported on barges towed by *Sheri Lynn S.* Picton also is a convenient source of construction materials for Toronto, about 120 miles away by water. Construction enterprises there include the Cherry Street stormwater and lake-filling project, said to be one of the most complex urban flood-protection efforts in Canada.

Road salt arrives at the terminals on self-unloading bulk carriers, or “lakers.” They use their booms, at least 250 feet long, to move the product directly to the top of the 90-foot cliff inland from the dock, where efforts are underway to create covered salt storage. Kingston-based Kimco Steel Sales, a steel service and recycling company, leases space in the 80-acre port to store imported steel since outgrowing its current location.

Lake Erie was the fourth ship in 2019 to deliver I-beams and C-channel steel from South Korea to Picton Terminals for Kimco. A Liebherr LHM 420 mobile harbor crane, purchased by the port last spring, offloaded the 3,200 tons of steel from the ship onto trucks that delivered it to the Kimco storage site at the facility. Doornekamp’s marine enterprises are growing, and it is purchasing a second larger Damen tug for regional work.

Sheri Lynn S. is helmed

by a rotation of four licensed captains who work for Picton Terminals on a contractual basis. Farish lives locally, and since Picton is not far from the Thousand Islands summer tourism area, his time aboard the tug is a variation of excursion vessel work. "I enjoy the more technical work of ship assist," he said.

Van Koughnett and Lees work full time at the port as deck hands and engineers. When the services of *Sheri Lynn S.* are not required, they operate or maintain other mechanical equipment for the Doornekamp enterprises. Once *Lake Erie* was tied up at the dock, they joined with other port workers to move steel from the ship to storage.

Since arriving at Picton, *Sheri Lynn S.* has kept busy beyond ship assist and moving aggregates. When ice forms on the bay, the tug breaks it to keep navigation

With another day of work in the books, *Sheri Lynn S.*, opposite page, awaits new duties at the Picton Terminals dock. At right, the Doornekamp tug meets *Lake Erie* in Picton Bay as the bulk carrier heads for port with a load of I-beams and C-channel steel. Taking a break in the wheelhouse after docking the tug are, below from left, Mike Lees, John Van Koughnett and Capt. Joe Farish.

open at the terminals and the nearby Lehigh and Lafarge cement docks. In October 2019, when a laker ran aground on Galop Island, N.Y., about 100 miles down the St. Lawrence River from

barge to shallower water at a tank manufacturing facility in Cornwall, Ontario.

Size, power and wrap-around visibility are valuable features on *Sheri Lynn S.*. With heated wheelhouse



Picton, the tug was one of four of varying sizes that helped free the ship. *Sheri Lynn S.*, with a draft of 8 feet 6 inches, performed shallow-water operations. The tug also assisted a deep-draft tug to move a 200-foot

glass, that visibility is assured in winter for safe and efficient operations. Crews tending lines benefit from an obstacle-free walkaround deck at roughly eye level with the captain, a safety feature that complements radio communication with visual contact.

Once *Lake Erie* was secured at the dock and lines were released and stowed, the deck crew on *Sheri Lynn S.* re-entered the wheelhouse to warm up and have some coffee. Conversation ranged from the work completed to assignments for the rest of the day. Quoting a deck hand on *Lake Erie*, Lees summed up the impression of the tug: "She looks small, but she's mighty." •



Employment

by Llewellyn Banks-Hughes

Women stepping up as stereotypes break down in maritime world

Is the tide finally turning on gender imbalance in the maritime industry?

At the most recent bunker training course run by Petrosport in Oxford, England, two-thirds of the attendees were female. In many other business situations, this wouldn't be anything to remark upon. Since half the world's population is female, it should be expected that at least half the people at any event are women.

However, the balance of gender at the Petrosport course was quite remarkable for the shipping industry, because at most 4 percent of the industry's sea-based workforce is female. The important question to ask, though, is does this attendance reflect the gender change that we've been waiting for?

It's certainly timely. Kitack Lim, secretary-general of the International Maritime Organization (IMO), announced in August that the World Maritime Day theme for 2019 was "Empowering Women in the Maritime Community," and he spoke on the subject at London International Shipping Week in September.

Industry leaders Kimberly Westmoreland, director of global fuel procurement at Royal Caribbean Cruises, and Lindsay Malen-Habib, client services manager at Resolve Marine Group, also recently explored the theme of empower-

ing and encouraging women in the maritime industry.

Fort Lauderdale, Fla., is Westmoreland's hometown, and ahead of Maritime Week Americas, which took place in the city in May, she confirmed that she is seeing a change in the industry.

"I think it is increasingly unusual to not see a woman sitting at the table with me in one capacity or another," Westmoreland said. "Now, more than ever, women are breaking down stereotypes and truly making waves in male-dominated sectors. It's encouraging to see a greater presence of females in the bunker industry. With seven females on my team, I'd like to think we are contributing to that wave."

Westmoreland and Malen-Habib are at pains to point out that working in the maritime sector is all about teamwork, an attractive option to many people. Westmoreland also highlights the pleasure and benefits gained from traveling around the world, something millennials entering the workplace are especially keen on.

"I love traveling, and there is tremendous value in traveling to the ports where we bunker," she said. "You can't beat seeing the operation for yourself — where the ship will be fueled and how it all plays out. We bunker in 144 ports around the world and my

team operates 57 vessels. We get to travel the world and experience firsthand how different countries operate.

"I like to visit our more strategic ports to see what our operations look like, understand where the risks lie, and to see how it all flows," she said. "Seeing things firsthand gives you a much greater perspective. I'm able to have a different conversation than I would have on the phone or over email. You gain better perspective. The networking is better, quality information gets shared, and this helps our operations become more efficient."

Speaking to Malen-Habib, it is clear she too is a trailblazer who can inspire more people to follow in her footsteps.

"Currently, we actually have more female directors than male directors at Resolve Marine, but the message I want to get out is that your gender or ethnicity doesn't matter, whether you are a man or woman, or on what side of the industry you originate," Malen-Habib said. "We are all equals in the bigger task of trying to (achieve) accomplishments that impact the world."

Ports, for example, are central to the world's infrastructure, and she considers natural-disaster salvage as the first line of defense in keeping them open.



Women outnumbered men for the first time last year at the Oxford Bunker Course held by Petrosport in Oxford, England. Teamwork and the opportunity to travel are two factors attracting more young women to the maritime industry.

Courtesy Petrosport

"Harbor clearance and vessel and debris recovery are all essential life-saving services," she said. "We have used *Lana Rose*, a former seismic and research vessel, to help residents and teams affected by Hurricanes Irma, Katrina and Maria. We have also worked on earthquakes in Haiti, and the list goes on."

Malen-Habib acknowledged that maritime is a male-dominated industry, but she always brings the focus back to the people, the team and the work they do, which is what will attract a new generation of workers — hopefully, half of them women.

"The most pleasure I get from my job is talking about the work we do and the people we employ," she said. "You can engage a salvage tug under contract, but if you don't have the appropriate salvage

masters, naval architects, technical engineers, marine firefighters, salvage divers, etc., in your employment who are loyal to your team, you have nothing. So, we are all about the people.

"The bottom line is that we consider ourselves protectors and stewards of the environment in terms of our work in emergency response, salvage, compliance and wreck removal," she added.

This powerful determination and conviction are just what our industry needs to deliver a tangible outcome to the IMO's World Maritime Day theme. Training and environmental protection, which matter so much to young people, are central to the work of Resolve Marine Group and Royal Caribbean Cruises. The more people like Westmoreland and Malen-

Habib who explain their work in the maritime sector, and the vital role of ports and their auxiliary services to our way of life, the more chance we have of celebrating a permanent change to the gender imbalance of our seagoing workforce.

Llewellyn Banks-Hughes is managing director of Petrosport. He has been in bunkering, oil and shipping since 1980 as a journalist and broker, establishing Petrosport in 2003 to publish Bunkerspot magazine, news and pricing services, and bunker and shipping books. He has created and operated events in 25 countries around the world, including Maritime Week Americas and London International Shipping Week, and training programs including the Oxford Bunker Course.

At Work



Army Corps workhorse locked and loaded for Three Rivers

**Story and photos
by Brian Gauvin**

In late September, with the main chamber closed for repairs, there were 17 tows waiting to lock on the Ohio River at the Willow Island Locks and Dam in Newport, Ohio. Capt. Dale Hohman, at the helm of the U.S. Army Corps of Engineers towboat *Evanick*, performed a nifty maneuver on the upstream guide wall in the auxiliary chamber to get the traffic moving again.

The 124-by-34-foot *Evanick*, which the Corps uses for towing and tending on the Allegheny, Monongahela and Ohio rivers, was working in tandem with the derrick barge *MONALLO III* to replace worn equipment and parts at the facility. Hohman, no stranger to working these vessels within the confines of

a lock, has performed what he calls “skewing the facing” many times in his 44-year career.

First, he nudged the starboard bow of *MONALLO III* against a barge moored to the guide wall. He then slacked off on the port face wires while tightening up the starboard wires, causing a gap of about 15 feet between *MONALLO III* and the towboat at the port face-up. Hohman proceeded to move *Evanick* to port until the stern was hard against the landside wall, wedging the tow into a lazy “S” that stabilized the crane’s platform and provided as direct a lift as possible to transfer equipment and materials.

The maneuver is important because by making the crane’s lift

more direct, less time is spent transferring ballast water to stabilize the barge for the crane. It is also important to the companies that are losing money while their tows are waiting to lock through.

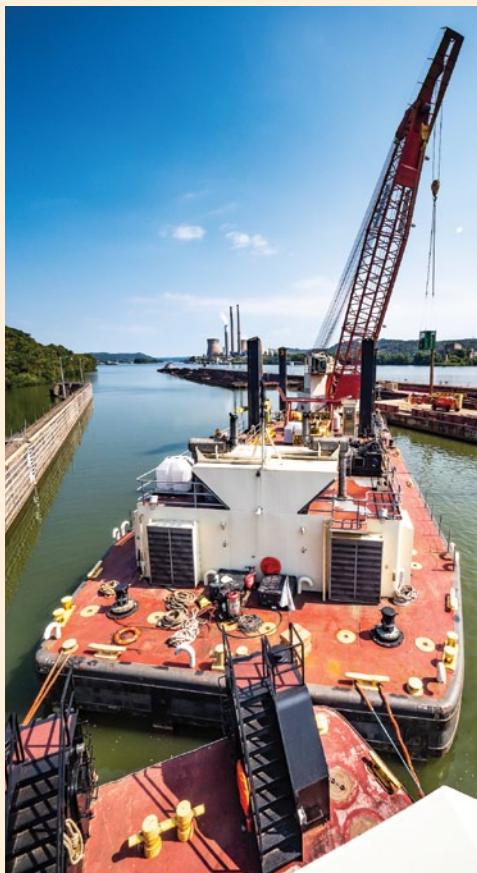
Evanick is the flagship of the Corps’ Pittsburgh District. The 3,000-hp towboat, delivered by Conrad Industries in 2005, is named for George Evanick Jr. He captained the vessel’s predecessor, *Raymond C. Peck*, for 20 years.

Evanick is fit with four steering and four flanking rudders, an unusu-

Evanick heads up the Ohio River in 2006 after delivery from Conrad Industries’ Orange Shipbuilding in Orange, Texas. The towboat serves the U.S. Army Corps of Engineers on the Allegheny, Monongahela and Ohio rivers.



Capt. Dale Hohman, left, mans the helm of *Evanick* during repairs to the Willow Island Locks and Dam on the Ohio River. At right, the usual rudder configuration – four flanking and two steering Rudders – was changed on the towboat by designer Corning Townsend. The vessel is fitted with four flanking and four steering Rudders.



al configuration designed by Corning Townsend of CT Marine. The arrangement gives the towboat more maneuverability, and the dual flanking rudders channel a cleaner flow of water through the Kort nozzles,

Evanick **SPECIFICATIONS**

Owner/operator: U.S. Army Corps of Engineers, Pittsburgh District, Pittsburgh, Pa.

Designer/builder: Orange Shipbuilding (Conrad Industries), Orange, Texas

Dimensions: L: 124' B: 34' D: 7.6'

Crew size: Eight

PROPELLION

- (2) Caterpillar 3512B main engines, 1,500 hp each at 1,200 rpm
- (2) Falk 2083MRHV reduction gears, ratio 4.5:1
- (2) John Deere 6081AFM 150-kW generators
- Sentinel engine controls
- (2) five-blade, 80-inch-diameter propellers in Rice Kort nozzles
- Maximum speed: 12 knots

NAVIGATION/COMMUNICATIONS

- (2) Furuno FAR2117 radars with MU190 display
- Rose Point ECS with remote keyboard and mouse
- Furuno FA150 AIS
- Furuno satellite compass
- Furuno RD30 depth sounder
- R.M. Young Wind Tracker
- Rivertronics Swingmaster

ADDITIONAL EQUIPMENT

- (4) Patterson 60-ton single-drum electric deck winches
- Schoellhorn-Albrecht electric capstan

reducing cavitation and increasing efficiency.

"I can operate each set independently or together," Hohman said.

To facilitate the repair project at Willow Island, the 1,200-foot main chamber was pumped out and dammed at both ends. Work on the downstream and upstream gates then ensued, with completion expected in four months. With only the 600-foot auxiliary chamber operational, efficiency has been paramount to keep commerce flowing.

"Some days are diamonds and some are coal," Hohman said. "Working above and below a dam, especially below a dam, all that water gets real squirrely. You can only read the surface. You can't see what's going on below it."

Evanick and MONALLO

III, above right, are positioned between the lock walls to stabilize the barge and provide its Seatrax crane with the most direct lift possible. Junior engineer Luke Berkopac, right, kneels next to one of the towboat's Caterpillar 3512B main engines.



Casualties



The stern of the 81-foot *Pappy's Pride* floats above the waterline next to the vessel's inflatable life raft after a collision with the chemical tanker *Bow Fortune* near the Galveston jetties on Jan. 14.

U.S. Coast Guard photo

Three die after tanker, fishing boat collide in fog near Galveston

One fisherman died and two are missing and presumed dead after a chemical tanker and fishing boat collided near Galveston, Texas, in heavy fog.

The 600-foot, Norway-flagged *Bow Fortune* hit the 81-foot *Pappy's Pride* on Jan. 14 at about 1555 inside the Galveston jetties. All four people aboard *Pappy's Pride* ended up in the water, and the vessel later sank just outside the navigation channel.

The pilot vessel *Yellow Rose* operated by the Houston Pilots rescued one crewmember who was treated later for non-life-threatening injuries. A Coast Guard crew from Galveston recovered an unresponsive crewmember from the water who later died. Two others were not found after an extensive multiday search. Members of the

fishing crew involved have not been identified.

The Coast Guard and National Transportation Safety Board are investigating the collision. The cause has not been determined.

As of press time in mid-January, authorities had shared few details about the incident. It is not known if *Pappy's Pride* was underway, where the two vessels made contact, or whether they communicated over radio before impact. The Coast Guard released a photo showing an inflated life raft near the mostly submerged fishing vessel, but none of the crew made it inside, Coast Guard spokeswoman Johanna Strickland said.

The incident occurred in the Galveston Bay Entrance Channel about a mile from the easternmost end of the jetties. *Pappy's Pride*

went down with about 14,000 gallons of fuel on board, and authorities noticed sheening on the water near its sunken hull.

Odfjell Ship Management of Bergen, Norway, operates *Bow Fortune*. The company issued a statement acknowledging its ship "made contact" with the fishing vessel near the entrance to Galveston Bay.

"At the time of the incident, *Bow Fortune* was inbound and under pilotage as first vessel in a convoy," said Harald Fotland, chief operating officer of Odfjell SE. "There was heavy fog in the area."

The National Weather Service issued a dense fog alert for Galveston Bay and parts of the western Gulf of Mexico less than an hour before the collision. Similar conditions continued for several days, hampering rescue efforts.

Local, state and federal authorities, joined by numerous good Samaritan vessels, searched 49 square miles before suspending the search on Jan. 16. By that point, the Coast Guard said, conditions were likely no longer survivable for the missing mariners. Water temperatures near the entrance to Galveston Bay are typically in the low 60s in January.

Authorities have not identified the pilot aboard *Bow Fortune* at the time of the collision. A spokesman for the Houston Pilots said the group did not have any personnel on the ship. The Galveston-Texas City Pilots did not respond to multiple requests for comment.

The 20-year-old tanker was fully intact after the collision, its managers said. There was no pollution from the ship and its crew was uninjured.

After the body of the first victim was recovered, Odfjell Ship Management said it was saddened by the death and offered "heartfelt condolences" to the fisherman's family. "We are also deeply concerned about the reports that two of the crewmembers on the fishing boat are still missing," Fotland said. The company vowed to cooperate with the investigation.

The Coast Guard established a unified command in response to

the sinking. Initial response efforts included placing boom around the mostly submerged hull and searching along the nearby shoreline for signs of pollution. Some sheening spotted around the vessel was determined to be unrecoverable, and nearby beaches were free of oil in the days immediately following the incident.

Bow Fortune was en route to Texas after several U.S. port calls, most recently in Lake Charles, La., after stops in Southport, N.C., and Wilmington, Del. The ship moored in Galveston after the collision.

Casey Conley

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Veteran Sandy Hook pilot dies after falling from containership

A pilot from the Sandy Hook Pilots Association fell while boarding a containership at the entrance to New York Harbor and later died from his injuries.

The incident occurred at 0430 on Dec. 30 as veteran pilot Capt. Dennis Sherwood, 64, of Freehold

The Coast Guard is investigating the incident and has shared few details. For instance, it is unclear if the vessels were underway at the time. The Coast Guard would not say whether there was any kind of failure involving the ladder, how far Sherwood fell or

unfortunate reminder of the dangers that pilots face every day in the normal course of their duties," said Capt. Jorge Viso, president of the American Pilots Association (APA). "It is also symptomatic of continuing problems with the design of pilot transfer arrangements on ships."

The pilot embarkation system on the U.S.-flagged *Maersk Kensington* consisted of a combination pilot ladder and accommodation ladder. Viso described this as a relatively common arrangement that is required when the water surface is more than 9 meters (29.5 feet) from the access point to the ship.

"This particular arrangement, however, involved a trapdoor in the platform of the accommodation ladder, with the pilot ladder hanging from a bar near the bottom of the platform," he said.

"This is a controversial trapdoor

arrangement considered unsafe by pilots. Our information is that the pilot fell while attempting to climb from the top of the pilot ladder up to the platform through the trapdoor."

The APA has "expressed concerns to the appropriate authorities" about the incident in general, as well as the trapdoor boarding arrangement specifically. The group called for investigations that are "thorough and swift."



Courtesy Sandy Hook Pilots Association/Derek Lilley

Township, N.J., climbed onto the 982-foot *Maersk Kensington* near the Ambrose Pilot Station.

Coast Guard spokesman John Hightower said Sherwood was making his way up the ladder when "he slipped and fell off back onto the pilot boat."

Authorities learned of the incident almost immediately, and the Coast Guard dispatched a vessel to escort the pilot boat to a shoreside facility, Hightower said. Sherwood was transported to a Staten Island hospital where he was pronounced dead from undisclosed injuries.

Capt. Dennis Sherwood fell while boarding *Maersk Kensington* and landed on the pilot boat that transferred him. The photo above shows the embarkation system on the containership in 2010, with a smaller pilot ladder below the accommodation ladder.



where he landed on the pilot boat. The pilot boat itself also was not identified.

"Capt. Sherwood's passing is an

In a prepared statement, Maersk Line Ltd. said the company "deeply regrets" Sherwood's death and expressed its "sincerest condolences to his family, friends and brothers at Sandy Hook Pilots."

"The company is cooperating fully with official investigations ongoing and is committed to sharing any learnings that can contribute to improving pilot safety," said Edward Hanley, vice president of labor and marine standards for Maersk Line.

AIS data suggests *Maersk Kensington* arrived in the New York area after port calls in India,

Oman and Algeciras, Spain. The 6,200-TEU vessel arrived at about the same time as a major winter storm that brought snow, rain and heavy winds.

A National Oceanic and Atmospheric Administration weather buoy located near the pilot station registered wind gusts up to 36 knots at 0600 on Dec. 30. Wave and weather information for the time Sherwood fell was not available.

Sherwood was a Sandy Hook pilot for 35 years, during which time he guided ships into terminals throughout the region, according to his obituary. He was

described as a good storyteller and avid golfer. He is survived by his wife, Marianne Sherwood, and four children.

Three fatalities involving pilots boarding or disembarking vessels have occurred in U.S. waters in the past 10 years, according to the APA. Over the past 15 years, there have been seven fatalities.

The Sandy Hook Pilots Association issued a statement acknowledging Sherwood's death. The organization did not respond to a request for additional comment.

Casey Conley



National Oceanic and Atmospheric Administration



Photo by Kat Hedberg

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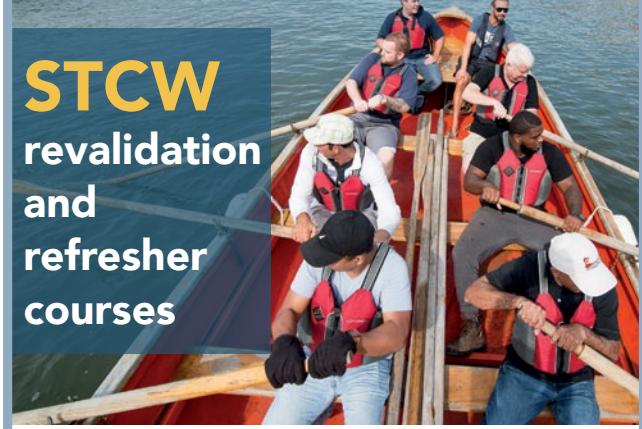
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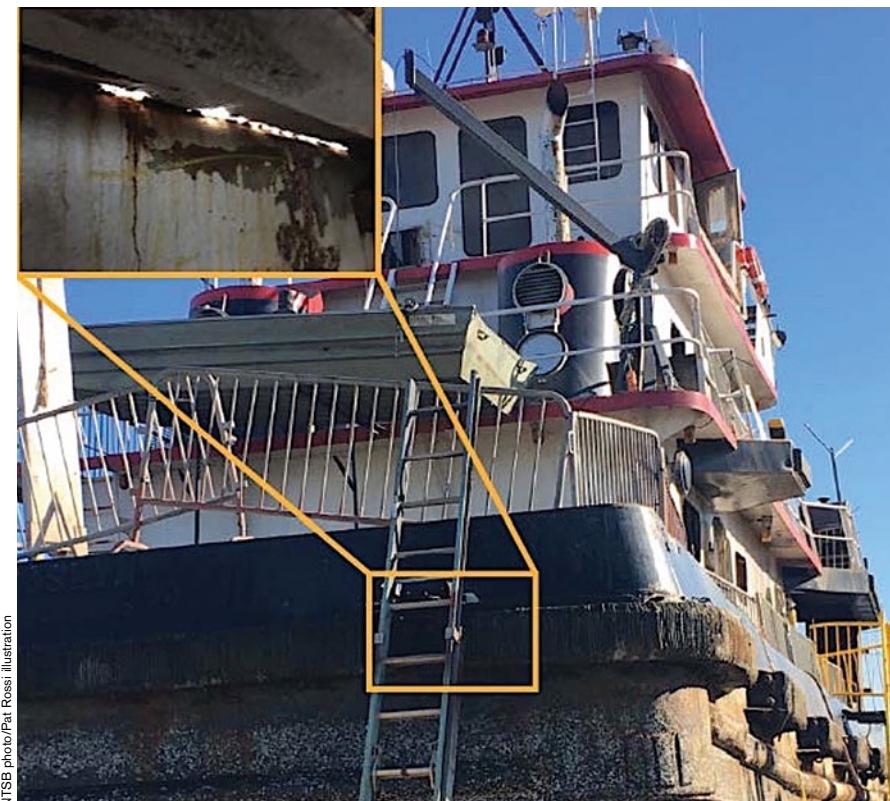
Poor maintenance cited in towboat sinking that cost captain's job

Miss Roslyn limped down the Mississippi River with a pronounced starboard list that worsened as water washed over the aft deck. The captain knew the towboat wouldn't make it five miles farther for a crew change.

He took the advice of a fellow Marquette Transportation captain who suggested crossing the river to shallower, calmer water along the east bank.

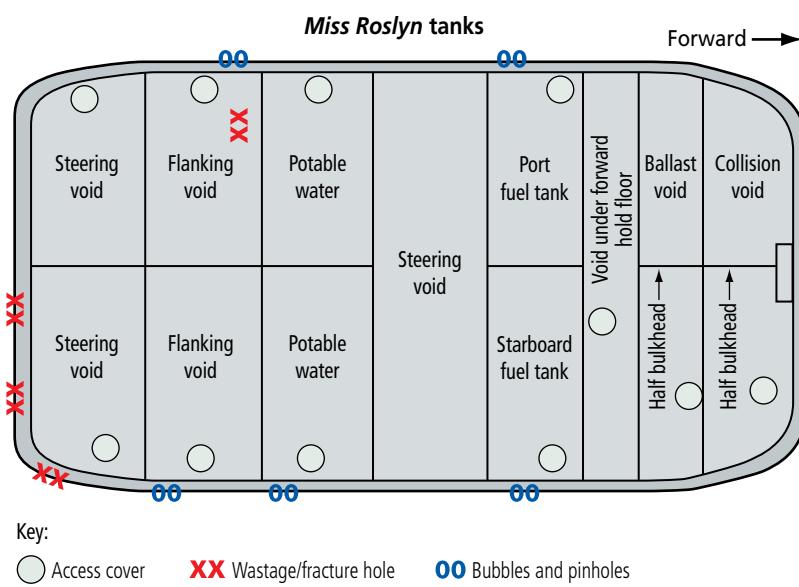
Miss Roslyn came up against an empty barge near the bank minutes before rolling over. All three crew escaped before the vessel sank at mile 142 in Reserve, La.

Investigators later attributed the sinking, which occurred on Oct. 9, 2018, at about 1700, to maintenance lapses by Marquette Transportation's Gulf-Inland division, which operated the 40-year-old vessel.



"The severe wastage found throughout the vessel in the post-accident survey indicates that the *Miss Roslyn* was poorly

A ladder propped against the stern shows the approximate location of a large hole along the seam between *Miss Roslyn*'s starboard steering void and aft main deck. The diagram details the estimated position of that hole and others found in the hull and deck during a tank compartment air test after the sinking.



maintained," the National Transportation Safety Board (NTSB) said in its accident report.

Marquette's Gulf-Inland unit, the report noted, "did not have an effective maintenance program on board the vessel, so holes in and fractures to the hull and deck went undetected and ultimately led to flooding while the vessel was conducting normal operations."

The NTSB did not specifically consider the actions of *Miss Roslyn*'s captain during the final minutes before the towboat sank. A committee of Marquette port captains, however, reviewed the incident and determined the 40-year-old captain should be fired.

Miss Roslyn swapped crews at the Cooper Consolidated Upper Reserve fleeting area at about 0500 on the day of the incident. It spent the day building tows at a fleeting area about seven miles upriver. For much of that time it was broadside to the current, holding barges in position. The

Within a minute, *Miss Roslyn*'s list worsened until the starboard bulwark was underwater. The towboat started slowly rolling as it approached an empty fleet barge. Two deck hands escaped to the barge while the captain jumped onto another towboat.

towboat left at 1600 that afternoon for a 1700 crew change.

The captain recognized the towboat listing more than usual to starboard during the return voyage. Deck hands discovered a dry engine room but 4 to 6 inches of water washing over the aft starboard deck. The water prevented them from opening hatch covers to check void spaces, although the captain ordered them to dewater the port steering and flanking voids with a portable pump.

Miss Roslyn's captain sought help over the radio. The captain of the Marquette towboat

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Joanne Marie responded that the stricken vessel likely wouldn't make it back to Cooper Consolidated. He suggested crossing the river to safer water despite the 4.7-knot current. According to the NTSB report, *Miss Roslyn's* captain felt confident the vessel would make the half-mile crossing. The good Samaritan towboat *Kristy Dutsch* followed closely behind, and *Joanne Marie* was nearby.

Within a minute, *Miss Ros-*

lyn's list worsened until the starboard bulwark was underwater. The towboat started slowly rolling to starboard as it approached an empty fleet barge on the east bank. Two deck hands escaped to the fleet barge while the captain jumped from the stern onto *Kristy Dutsch*, where a crewman captured images of the capsizing.

Salvage crews refloated the towboat within a week. Tests conducted by a marine sur-

veyor showed "severe wastage" throughout the vessel, which last was dry-docked in June 2017. Problems included "a fractured seam in the hull to the starboard steering void, and a fractured deck plate on the stern deck above the port flanking void," NTSB investigators said. Bubbles and pinholes were located along several port and starboard tanks.

Federal investigators said the scope of the wastage, and

CASUALTY BRIEFS

Mate at helm sleeping when tow struck riverside restaurant

The mate helming a towboat pushing 15 barges up the Ohio River was asleep when the tow struck a marina and restaurant last fall, according to the U.S. Coast Guard, which is taking action against his license.

The service declined to identify the mariner or his position on the towboat *Dale Artigue*. Barges pushed by the 4,900-hp vessel struck portions of the Ludlow Bromley Yacht Club at about 0600 on Oct. 2, destroying the business.

"The causal factors included the mate on watch falling asleep while at the controls, thereby failing to maintain a proper watch as the vessel was underway upbound on the Ohio River at mile marker

474," said Coast Guard Lt. James Brendel. "There were two deck hands on watch at the time of the incident. However, neither deck hand was assigned navigation watch duties."

The Coast Guard has launched an administrative enforcement action against the mate's merchant mariner credential. The mariner retained his credential as of mid-January, but Brendel said enforcement action that could include license suspension or revocation was pending.

Florida Marine Transporters of Mandeville, La., operates *Dale Artigue*. The company said in the fall that it had launched an investigation into the incident. A spokesman did not respond to a request for comment on the Coast Guard findings.

Impaired captain loses license after grounding

A tugboat captain lost his license for at least a year after the Coast Guard determined he was operating under the influence of alcohol when his vessel ran aground in mid-November.

The captain, who was not identified, was helming *Nikki Jo C.* as it pushed the loaded grain barge *NF-108* on the Rappahannock River on Nov. 14. The tug grounded at about 0630 near Tappahannock, Va., northeast of Richmond.

"The master allegedly fell asleep at the helm, and the vessel maneuvered outside of the channel ... on the east side of the river," Coast Guard spokesman Stephen Lehmann said, adding that authorities later determined "that the master was operating

the vessel while under the influence of alcohol."

Lehmann said the Richmond County Sheriff's Office administered the alcohol breath test. The federal limit in such a circumstance is a blood-alcohol level (BAC) of 0.04 percent. The Coast Guard would not disclose the BAC level, although Lehmann said it exceeded the federal limit.

The mariner was removed from the vessel following the incident. A second tugboat responded, and it was able to help *Nikki Jo C.* and its barge. Additional voyage details, including the tow's origin and destination, were not available.

The mariner's credential has been suspended for a year, followed by a six-month probationary period under terms of a settlement with the Coast Guard.

the fact that it was presumably undetected, suggested problems with Marquette's upkeep efforts.

"An effective maintenance program would have prevented the holes from forming and made identification of hull fractures easier to see and flag for repair, or helped to determine when the vessel had outlived its useful service life," the NTSB said.

Marquette Transportation did not respond to a request for

comment. *Miss Roslyn*, valued at \$1.1 million, was a total loss.

The NTSB considered fatigue when investigating the captain's decision-making. The report noted the captain lived 70 minutes from work. Combined with a 12-hour shift, the captain's workday approached 14.5 hours. He got about six hours of sleep each night.

Marquette is part of American Waterways Operators' Responsible Carrier Program that requires

operators to adhere to industry best practices. Marquette has a health and safety plan that considers employees who work more than 14 hours per day "a high risk for crew fitness." However, it does not include commutes in that calculation.

Details about the captain's departure from Marquette were not available. He was no longer working for the company when interviewed by the NTSB.

Casey Conley

His credential could be revoked permanently if he fails to satisfy terms of the agreement.

Ohio River towboat incident spurs high-water warning

The Coast Guard is reminding mariners of best practices and urging vigilance as the 2020 high-water season begins on some inland waterways.

The service issued the warning in mid-January after an incident involving the towboat *Steve G.* on the Ohio River near West Franklin, Ind. The Coast Guard said the vessel was assisting a grounded barge on Jan. 12 when its bow rode up on the barge, partially submerging the towboat's stern.

"The strong river current then caused a severe list, but the vessel's watertight integrity prevented it from capsizing or sinking," the

Steve G. lists during an incident involving strong current on the Ohio River near West Franklin, Ind., on Jan. 12. The crew's actions and the towboat's watertight integrity prevented it from capsizing or sinking, according to the Coast Guard.



Coast Guard said. "The crew's proactive actions to keep the watertight doors closed and to maintain the watertight envelope of the hull potentially saved their lives and saved the vessel."

The 2019 high-water season was unprecedented in its length, and there were intermittent river closures due to flooding and strong currents. There were also high-profile maritime casualties that resulted in injuries and fatalities.

As the 2020 high-water season began, the Coast Guard warned there is an "elevated threat" of flooding due to rainfall levels in parts of the upper Midwest up to 200 percent higher than usual. In these circumstances, even normal precipitation levels can cause flooding. As of mid-January, many rivers were already running high.

Crews transiting these waters can take steps to protect their vessels and themselves, accord-

ing to Capt. Tracy Phillips, chief of prevention in the Coast Guard's 8th District.

"When crews are actively following a safety management system, and commercial vessels are in compliance with marine safety regulations, the risks to the vessel are drastically reduced and the crew is better prepared to respond if an emergency does occur," Phillips said.

Casey Conley

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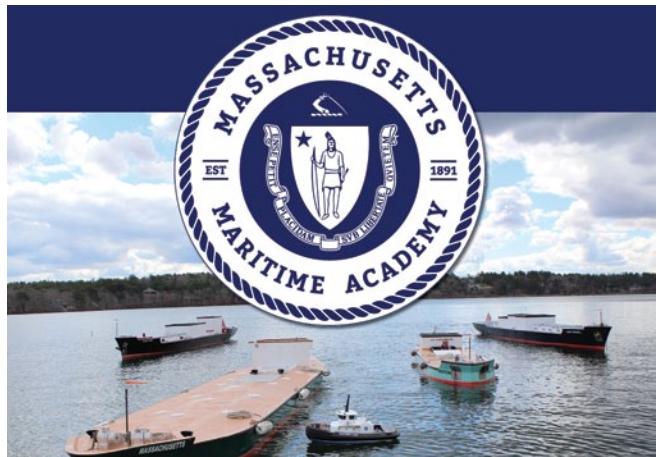
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APPRENTICESHIP FOR STATE PILOT LICENSE



The New Jersey Maritime & Docking Pilot Commission and the Board of Commissioners of Pilots of the State of New York are seeking applicants for the state maritime pilot apprenticeship program with the United New York and New Jersey Sandy Hook Pilots' Benevolent Associations. The program, which is a prerequisite to a ship pilot's license in either state, is open to any United States citizen not less than the age of 18 and not more than 27 by April 15, 2020, who can meet certain physical requirements and has attained a Bachelor's Degree from an accredited institution by June 30, 2020. Full details on the program and the requirements will be included with the application form. Such form may be obtained without charge by writing to: Sandy Hook Pilots' Association, 201 Edgewater Street, Staten Island, New York 10305 or email shpa1694@gmail.com. Applications shall be filed by mail at the above address no later than April 15, 2020. A scheduled test will be conducted by an independent testing entity to evaluate all applicants. A testing fee will be required. Selection of apprentices, as needed, will be made from a ranked certified list of qualified applicants authorized and maintained by the State Pilot Boards for a two-year period. Selection of qualified applicants shall be made on the basis of qualifications alone under the applicable Navigation Law and Regulations (including amendments) of the States of New York and New Jersey without regard to race, creed, color, national origin, ancestry, marital status, sex, or liability for service in the Armed Forces of the United States, in full accordance with the objective standards which permit review, after full and fair opportunity for application. This program shall be operated on a completely non-discriminatory basis.



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NTSB cites ineffective bridge communication in NY pier strike

Ineffective communication between the docking pilot and the master of a Carnival cruise ship was the primary cause of a 2018 pier strike in New York that caused \$2.5 million in damage, according to federal investigators.

The National Transportation Safety Board (NTSB) also highlighted a perceived lack of engagement among bridge crew in the minutes before *Carnival Horizon*'s bow struck Pier 90 in Manhattan. The incident occurred just before dawn on Aug. 28, 2018, as the ship turned almost 90 degrees to dock starboard side-to at Pier 88. Shore-side facilities sustained most of the damage.

"As the ship continued to maneuver to the berth and rotated clockwise around the end of Pier 88, the bridge team and pilot progressively lost awareness

of the vessel's headway toward the end of Pier 90," the NTSB said in its report.

"The pilot was focused on reducing the vessel's rate of turn to starboard, while the ship was still moving forward toward Pier 90," the report continued. "The closing distance went undetected or unchallenged by the bridge team until the ship was so close to the pier that no maneuver could have prevented the impact."

The position of the third officer serving as a forward lookout contributed to the incident, the NTSB said. The officer alternated between starboard

and port mooring platforms that did not offer a clear view of the bow. Carnival now positions a crewmember at the bow to gauge distances when docking at the Manhattan Cruise Terminal.

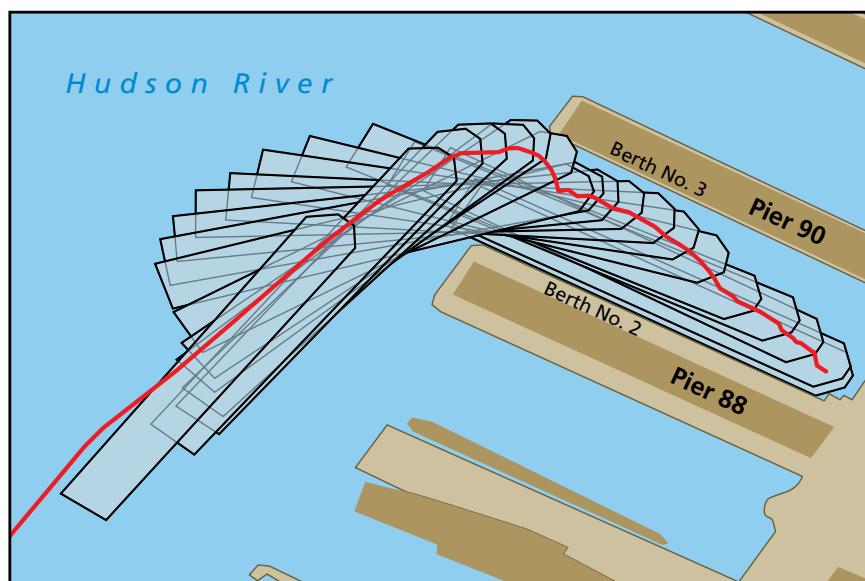
In a prepared statement, Carnival acknowledged the NTSB determination. "We have reviewed the NTSB report and will be using these findings as the basis for procedural recommendations and training," company spokesman Vance Gulliksen said.



Terence Farcloth photo/Pat Rossi illustration

Carnival Horizon, at left above, is shown at Grand Turk Island with its forward mooring platforms deployed. The NTSB said the platforms, about 100 feet aft of the bow, did not provide a clear view for the third officer to monitor the ship's approach to the Manhattan Cruise Terminal on Aug. 28, 2018. ECDIS data shows the ship's track beginning at 0539 and ending at 0611.

The incident occurred as the 1,062-foot, Panama-flagged *Carnival Horizon* returned to New York after an eight-day Caribbean cruise. There were 6,361 people on board: 4,922 passengers, 1,437 crew and two



pilots, one from the Sandy Hook Pilots Association and a docking pilot from the Metro Pilots Association. The Sandy Hook pilot boarded the ship at the entrance to New York Harbor at 0318 and took the conn about 10 minutes later.

Carnival Horizon's master hired a tugboat and docking pilot for the final maneuver into Pier 88, a voluntary decision influenced by the anticipated strong ebb current. The docking pilot boarded the ship at 0530 near Chelsea Pier 61 on the clear, calm morning. The Metro pilot and master worked together on at least two previous docking maneuvers at the Manhattan terminal.

The master envisioned placing the 6,000-hp tugboat *JRT Moran* starboard roughly amidships to serve as a pivot point for the sharp turn, the NTSB said. Bridge recordings suggest the docking pilot and master were not in full agreement on the tug placement and did not fully resolve the issue. The pilot later placed the tug forward of the master's preferred position.

The docking pilot, with 28 years of experience, took the conn from the Sandy Hook pilot at 0537. There were at least eight people on the bridge, including the two pilots, master, second officer, helmsman, lookout and staff captain charged with overseeing bridge operations. The third officer was positioned as a forward lookout on

mooring platforms roughly 100 feet aft of the bow, which did not afford a clear view of the bow.

Two minutes later, at 0539, the master transferred control of the ship's twin azimuth thrusters and three bow thrusters to the starboard bridge wing. During the next several minutes, the ship's bow cleared Pier 88's western edge with *JRT Moran* forward on the starboard side aft of the bow thrusters.

The report suggested the Metro pilot and the ship master were so concerned the ebb tide would push the ship into Pier 88 that they did not properly monitor the approach toward Pier 90.

At 0548, *Carnival Horizon* was making 1 knot at a heading of 038 degrees with a 12-degree rate of turn to starboard. At that point, roughly 150 feet separated the bow from the southwest corner of Pier 90. A minute later the ship's speed had increased to 1.2 knots, while the distance to the pier decreased to an estimated 50 feet with a 14-degree rate of turn.

"About 15 seconds later, the third officer reported they were 'getting really close,' to which

the pilot immediately responded with a request to 'back — go back,'" the report said. "At 0549, at a speed of 1.4 knots over ground ahead, on a heading of 054 degrees, the *Carnival Horizon*'s bow struck the second and third levels of Pier 90's facility and parking garage."

The report suggests the Metro pilot and ship master were so concerned the ebb tide would push the ship into Pier 88 that they did not properly monitor the approach toward Pier 90. The staff captain charged with overseeing the maneuver never raised concerns about the ship's speed before the impact, the report said.

"Although Carnival's navigation policy and task assignments require monitoring of the person conning the vessel, cross-checking of the ship's position, and predicting track and headway, there was no evidence that any bridge team member probed or alerted the master and pilot of the headway of the vessel toward the corner of Pier 90," the NTSB found.

The New Jersey Maritime Pilot and Docking Pilot Commission also investigated the incident. The commission found the Metro pilot did not conduct appropriate exchanges between the Sandy Hook pilot or the master prior to taking the conn. Attempts to reach the Metro Pilots Association for comment were not successful.

Casey Conley

Engine room fire disables Canadian bulk carrier near Detroit

The Canada-flagged bulk carrier *Tecumseh* lost propulsion and briefly went adrift in the Detroit River after a fire in the engine room.

The fire started in the early afternoon on Dec. 15 as the 640-foot ship passed Zug Island in an industrial section south of downtown Detroit. The fire burned for nearly 20 hours due in part to a series of re-flashes, according to Coast Guard spokesman Jeremiah Schiessel in Sector Detroit.

The Coast Guard said the fire started when *Tecumseh* was in U.S. waters. The bulker later drifted into Canadian waters and dropped anchor. Canada's Transportation Safety Board (TSB) is leading an investigation into the incident.

"The fire originated from the propulsion machinery of the ship, and the engine room sustained major damage," TSB investigator Francois Dumont told *Professional Mariner*. "The TSB investigation is ongoing and technical analyses of machinery components will be performed to exactly determine the cause (or causes) of the fire."

Additional details about the incident were unavailable, including whether flames escaped the engine room.

Tecumseh's 16 crewmembers escaped without serious injury, although several required first aid, Schiessel said. The ship carried about 42,000 gallons of marine diesel fuel when the fire started, but the incident did not cause any



pollution. It also did not affect vessel traffic.

AIS data indicates *Tecumseh* was bound for a terminal near Windsor, Ontario, after taking on a load of canola in Thunder Bay several days earlier. Canadian authorities in Sarnia, Ontario, learned of the fire at 1408 on Dec. 15. It was extinguished the following day at 0954, Dumont said.

Tecumseh crew initially responded to the fire, although the Coast Guard said firefighting personnel from T&T Salvage boarded the ship overnight to extinguish the flames. T&T did not respond to a request for comment.

Rand Logistics of Jersey City,

An investigator from the Transportation Safety Board of Canada approaches the bulk carrier *Tecumseh* along the Detroit River in Windsor, Ontario, on Dec. 17. A fire two days earlier left the ship adrift in the waterway.

N.J., operates *Tecumseh*, a traditional bulker with a cargo capacity of 29,510 tons. The company also did not respond to an inquiry by *Professional Mariner*.

The Coast Guard deployed a 45-foot response boat and helicopter crew to monitor the situation. After the fire, *Tecumseh* moored at the Morterm Ltd. terminal in Windsor. The ship remained there as of early January.

Casey Conley

As industry needs grow, maritime schools face potential instructor gap

by Alan R. Earls

The increasingly sophisticated and regulated maritime world needs professionals with stronger skill sets than in the past. But accumulating those skills through dedicated and accredited programs may start to get more difficult. With a strong economy keeping demand high on the water, and with the challenge growing to become an instructor at many maritime training institutions, the potential for a shortfall is real.

Capt. Ed Nanartowich, president and chief operating officer

Capt. Ed Nanartowich communicates with his crew while transiting the Panama Canal in July 2007 aboard the hospital ship USNS *Comfort*.

Nanartowich, who served as civilian shipmaster on the Military Sealift Command vessel, is now president of Mid-Atlantic Maritime Academy. The path to becoming an instructor is open to many retiring or transitioning mariners, but few are taking it.

at Mid-Atlantic Maritime Academy in Norfolk, Va., said the obstacles for schools include finding the right people to fill positions, which can vary geographically, and matching instructors to the particular curriculum offered by an institution.

"Instructors, the good ones that is, are special people who have an affinity to pass on their knowledge to other mariners and

want to have those mariners succeed in their jobs at sea," he said.

It boils down to several universal issues for all schools trying to find and retain high-quality instructors, according to Nanartowich:

- The economy is booming, and there are jobs aplenty in many related maritime and non-maritime industries.
- The "baby boomer" gen-



U.S. Navy photo





Courtesy: U.S. Naval Academy

eration is about to retire or has retired and, in many cases, wishes to remain so. "Getting them to re-engage with maritime subjects can be daunting when they are set on putting bait on hook and watching the sunset in warm climes," he said.

• Financial compensation for instructors is considerably less than for their seagoing counterparts. A mariner, young or older, can easily find a full-time job that pays twice the wage of a typical instructor, Nanartowich said. And yet the skill set required for instructors is high, with new International Maritime Organization (IMO) requirements for curriculum.

• The complexities of the required training have grown within the IMO and within the National Maritime Cen-

ter (NMC) by default, which makes it difficult to find instructors who meet competency mandates.

Nanartowich said revenues at maritime institutions often do not allow for instructors' wages to compete with those earned on the water, making it a less attractive opportunity for a retired or transitioning mariner.

"The fix to that, you may say jack up the prices of the courses so you can pay the instructors more, but then the mariners (tak-

ing the courses) take the brunt of the expense," he said. "They pay enough already, and in my opinion too much, particularly at the unlicensed levels."

While he admitted that might be an odd comment for the president of a maritime school to make, "I am a mariner first and I know what their issues are since they were my very same issues when I went to sea," Nanartowich said.

Making it worthwhile

As in any job, instructors need to see a future, said Dan Weinstock, professor and chairman of the Marine Transportation Department at California Maritime Academy. Employees need to feel



Courtesy: California Maritime Academy

Cadets pursuing a degree in marine transportation get down to business at California Maritime Academy. Finding instructors is becoming more challenging amid a perfect storm of a strong economy, "baby boomers" reaching retirement age, and a growing wage gap with instructors' seafaring colleagues.

valued and respected, he said, adding that he was lucky “in that I was hired into a tenure track position.”

Weinstock started his long maritime career as a shell fisherman on Long Island’s Great South Bay when he was in sixth grade. He stuck with that until he was 23 years old, when he “hung up his clam rake” to go to Cal Maritime. He has a long resume of on-the-water experiences that led to an instructor position at the academy in 1996, sailing as the chief officer on the training ship *Golden Bear* for eight summers and as the relief master on three cruises.

“I won’t debate the pros and cons of tenure, but I will say that at least in the California State University system, (with a tenure track) one can see the timeline clearly,” Weinstock said. “Full promotion into CSU is an 11-year process. Tenure is not just handed out.”

Maritime schools need dedicated faculty who will strive to get better in the classroom, he said, because it takes time to get comfortable in front of 50 students hungry for knowledge.

“All the experience in the world, in many cases, does not prepare someone to stand in front of a classroom and convey information in an organized and thoughtful manner,” Weinstock said, adding that most people must learn how to teach. “We have classes that meet 45 times over a 15-week semester. Being prepared for all those lectures

can be a daunting task, especially during the beginning of a career or when the information is new to the faculty member.”

Even someone with little practical maritime experience can be very successful in a classroom, he said. But instructors must be prepared, be willing to do the necessary research in preparation

“All the experience in the world, in many cases, does not prepare someone to stand in front of a classroom and convey information in an organized and thoughtful manner.”

Dan Weinstock,
California Maritime Academy

for the classroom, and maintain control of their students.

Donald Maier, dean of the School of Maritime Transportation, Logistics and Management at Cal Maritime, said there also are other responsibilities and opportunities for faculty.

“Most people don’t realize that there’s a lot more to the job than just teaching. There is a service aspect to the institution and also a scholarship piece,” he said. That side of the job is important to the community and

also ensures that faculty doesn’t become stagnant.

The proverbial bottom line

According to Weinstock, schools don’t need to be able to pay a potential instructor “maritime industry wages” — especially in areas such as San Francisco Bay, where housing can be prohibitively expensive — but they do need to offer an attractive wage and attractive working conditions.

“People do not go into education expecting to get wealthy, but they do need to be able to survive on their wages,” he said.

For example, someone who is considering a career change and has small children at home initially may be comfortable with the wage being offered, but they may soon discover that most of their check goes to covering child care. “Of course, this is a problem in many industries,” Weinstock said.

Those concerns are shared by Jerry Achenbach, superintendent of Great Lakes Maritime Academy in Traverse City, Mich., who also cited the recent loss of two instructors to retirement. Achenbach said the once-affordable housing in the area is disappearing due to a growing market for vacationers.

Is there a solution? Achenbach thinks the academic system works, but more organizations need to provide a tenure track and incentives so more individuals are willing to invest their time and effort to join a maritime faculty.

Nanartowich believes the need for maritime skills is great, and he questions whether government-supported schools that receive Maritime Administration (MarAd) funding can do it alone. He said Mid-Atlantic Maritime Academy, which does not get funding from MarAd, could benefit from that kind of help so tuition can be kept at a reasonable level.

"Every person that crosses our threshold here has one goal in mind, namely to go down to the sea on ships," he said. "Modest funding to non-state schools by federal programs that are con-

cerned with, for example, the maritime workforce response in a national surge event, would rapidly grow the licensed and unlicensed reserves."

Stopping the turnover

High employee turnover hurts all industries, Weinstock said. At maritime schools, the lack of tenure-track faculty opportunities hurts recruitment and retention and can lead to turnover. That's because lecturer positions typically pay less than tenured ones and, as a result, a lecturer may not see a future and leave shortly after arriving.

"It isn't fair to the students to have a revolving door of faculty, (and) it takes most faculty a few years to get comfortable in the classroom," he said.

Any specialized field requires laser-focused faculty, and maritime instructors all have to develop areas of expertise, Weinstock said. The challenge of finding someone to teach a few sections of a highly specialized course compounds the issue.

"Who is going to work part time and teach only a few times a week, and according to our schedule, while making very little money?" he said. •

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The advertisement features a large, weathered yellow bollard in the foreground. In the background, there are several smaller images: a NASA life raft, an offshore oil rig, a person working on a ship's deck, a hand holding a metal cup, a red life preserver, and a ship's hull. The Chafe-Pro logo, which includes a stylized figure holding a rope, is prominently displayed. The tagline "Don't Dock Without It!" is also visible. The bottom half of the ad contains the text "PROTECT YOUR INVESTMENT" in large blue letters, followed by the website "www.ChafePro.com" and the phone number "1-844-NO-CHAFE".

Correspondence

by Capt. Ted Peck

Use CBD for pain? Your merchant mariner credential could suffer

The latest incarnation of my merchant mariner credential arrived 11 days into the new year, reaffirming the wisdom of starting the renewal process at least three months prior to credential expiration. This particular paper chase commenced on Nov. 4, a quinquennial process dating back to the last century. Government — especially military bureaucracy — is renowned for pro-

and buds that contain THC (tetrahydrocannabinol), the main psychoactive component. Some folks say the film *Reefer Madness* back in the 1930s pushed the Coast Guard into blurring the definitions of cannabis, but etiology on its prevailing status in the service's purview is moot. Use of any type of cannabis product disqualifies a mariner from credential renewal.

for the renewal. My daily regimen included 15 drops of CBD oil to treat chronic pain of osteoarthritis in both shoulders caused by 8,500 hard days on the water over the past five decades.

Use of this THC-free hemp product wasn't an issue with previous credential renewals, but this time the "amplified information" hoop popped up because I had foolishly told the truth on the medical form. Passing a drug test that showed my body was THC-free didn't matter.

Looking for input on this bullfodder hoop, I interviewed 19 mariners, including active-duty and retired Coast Guard personnel. Seventeen of the 19 told me they had either omitted or lied about information on an official Coast Guard form.

This didn't resonate with a retired professional firefighter who holds archaic traits like integrity and honesty in high regard. So, I reached out to my senator, Republican Joni Ernst of Iowa, wondering why a THC-free analgesic — totally legal, with no deleterious side effects found in other OTC meds, corticosteroid injections and prescription drugs — was an unequivocal disqualifier for credential renewal.

Ernst responded with a letter acknowledging the potential of CBD products as pain relievers for



The author's admission that he used CBD oil, even though it contains no THC, led to a request for "amplified information" that delayed renewal of his merchant mariner credential.

ceeding at a glacial pace, a situation often perpetuated by a disgruntled link in the chain of command.

The U.S. Coast Guard's well-intentioned but draconian "war on rope" was the cause of the delay in this renewal cycle — ironic that a vital component dating back to a time prior to the tall ships would create such a kerfuffle as we steam merrily through the nuclear age.

Legislation enacted in the early 20th century clearly differentiated between the hemp component of the cannabis plant and those leaves

This point was driven home in a letter demanding "amplified information" after personnel at the National Maritime Center pored over my renewal packet. The "red flag" was admission on the medical form of taking CBD (cannabidiol) oil, listed directly beneath other over-the-counter meds like aspirin and a multivitamin.

About 10 days prior to submitting the packet, I woke up, gulped my OTC meds and a blood pressure pill, and drove to town for the DOT Panel 5 drug test required

many medical conditions, noting she was an original cosigner of S. 1276 — the Cannabidiol Research Expansion Act, which was introduced on May 25, 2017, by Sen. Dianne Feinstein, D-Calif., and Sen. Chuck Grassley, R-Iowa. If enacted, the bill would support research initiatives on the potential benefits of substances that are derived from marijuana, such as CBD.

In her letter, Ernst noted that the bill had been referred to the Senate Judiciary Committee for further consideration. A Google search for S. 1276 revealed it is still languishing in the Judiciary Committee, with a four-year “sunset” clause. The cannabidiol bill will expire May 25, 2021, if it is not acted upon in the meantime — not unlike the sunset behind an Alaskan glacier this time of year.

Although Congress plays a role in Coast Guard marching orders, service spokeswoman Lt. Amy Midgett said official policy has many sources of input when it comes to medical matters. Midgett said the Coast Guard’s Merchant Mariner Medical Manual was developed “in close

harmony with experienced maritime medical practitioners and industry stakeholders” serving on the Merchant Mariner Medical Advisory Committee (MEDMAC) and the Merchant Marine Personnel Advisory Committee (MERPAC).

“The manual is essentially a synthesis of information from these two groups and medical requirements of Title 46 Code of Federal Regulations (CFR) Part 10, Subpart C,” she said. “One option to change policy is for merchant mariners to attend and offer input at public meetings of MEDMAC, which are announced in the Federal Register.”

Going forward, there is a good chance the Coast Guard’s stance on CBD oil will remain unchanged when my next quinquennial quest for credential renewal rolls around. Meanwhile, the political landscape regarding cannabis continues to evolve. With the recreational use of marijuana now legal in 11 states and medical marijuana use legal in 30, anything is possible.

Coast Guard policy remains steadfast, with the service literally doubling down by continuing a

50 percent annual drug test rate for covered crewmembers. That’s up from 25 percent in 2018, when statistics revealed that more than 1 percent of mariners failed the DOT Panel 5 test covering marijuana (THC), cocaine, amphetamines, opioids and phencyclidine (PCP).

It’s sad that our industry professionals feel compelled to chart a course based on omission or prevarication in pursuit of smooth sailing through the credential renewal process. Those who choose to use CBD can roll the dice, adopting a “don’t tell when they ask” stance on the medical form. Or they can seek relief from chronic pain by using approved medications and treatment modalities that are invariably more deleterious to our health.

It looks like we’re caught somewhere between pan-pan and mayday, with no safe harbor in sight.

Capt. Ted Peck has been working as a fishing guide on the Upper Mississippi River for more than 20 years. He is a 2020 inductee into the National Freshwater Fishing Hall of Fame.




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The Coast Guard and IMO 2020: Enforcing the new sulfur cap

by Andrew Norris

On Jan. 13, the U.S. Coast Guard issued a work instruction pertaining to compliance and enforcement of the International Maritime Organization's 2020 sulfur cap in U.S. waters. As it states in the preamble, the work instruction is not a rule, it does not substitute or supersede applicable laws or regulations, and it does not impose legally binding requirements. Instead, it "represents the Coast Guard's current thinking on this topic and may assist industry, mariners, the public and the Coast Guard, as well as other federal and state regulators, in applying statutory and regulatory requirements."

Effect of changes in U.S.

IMO Resolution MEPC.305(73) amended MARPOL Annex VI Regulation 14 to prohibit ships operating outside existing Emission Control Areas (ECAs) from using or carrying on board any fuel oil that exceeds 0.5 percent sulfur content after Jan. 1, 2020. A complementary amendment prohibiting the carriage of noncompliant fuel oil after March 1, 2020, was adopted in October 2018.

These amendments will not have a significant substantive effect on vessels operating in U.S. waters, since the majority of the United States is encompassed by either the North American ECA or the U.S. Caribbean Sea ECA. Since Jan. 1, 2015, the fuel oil sulfur cap in both

ECAs has been 0.1 percent, and this standard will remain in effect for all U.S. ports within the areas. The only substantive effect will be in non-ECA ports, in which vessel operators will have to use fuel oil that does not exceed 0.5 percent sulfur content.

The main effect in the U.S. of the IMO amendments (referred to as Regulation 14 changes) will be in the Coast Guard's enforcement posture. Enforcement officials in ports within ECAs will continue verifying compliance with the 0.1 percent standard. Officials in non-ECA ports will begin verifying compliance with the new 0.5 percent limit. And since the U.S. is a party to Annex VI, U.S. compliance officials will also verify foreign vessels' compliance with the Regulation 14 changes when operating beyond U.S. waters. How compliance is achieved, and how the Coast Guard will conduct compliance inspections, is the subject of the work instruction.

Coast Guard objectives

The Coast Guard will use the ECA Job Aid (Enclosure 1 to the work instruction) when performing the portions of domestic inspections and port state control examinations related to Annex VI. The ECA Job Aid outlines the items the marine inspectors (MI) and port state control officers (PSCO) may review or examine. The depth and scope of the examination will be determined by MIs and PSCOs based on the condition of the vessel, compliance

with the ECA through the use of low-sulfur fuel oil (or other methods), the operation of systems used for compliance, and the competency of the vessel's crew. The Coast Guard may take fuel samples from service and bunker tanks to verify compliance.

- Enforcing ECA requirements — In the two ECAs encompassing the U.S., the Coast Guard will continue to enforce ECA requirements by reviewing bunker delivery notes (BDNs), checking vessel logs for information regarding where the vessel changed over to ECA-compliant fuel, and confirming the vessel has written changeover procedures.

- Enforcing sulfur limits in non-ECA U.S. ports — Coast Guard units outside either U.S. ECA (e.g. Sector Guam) will follow the same procedures as those in ECAs to ensure all vessels calling there are complying with the 0.5 percent sulfur limit.

- Enforcing compliance with Annex VI outside U.S. waters — As mentioned before, since the United States is a party to Annex VI and is bound to enforce it, the Coast Guard will review vessel documents to determine whether the vessel is complying with the applicable fuel sulfur limit when operating beyond U.S. waters. According to the work instruction, compliance with Annex VI can be achieved by using low-sulfur fuel oil, by receiving equivalence or by receiving a temporary exemption.

For vessels using low-sulfur fuel oil, MIs and PSCOs will review bunker delivery notes and check logs to determine compliance with the applicable fuel sulfur limit when operating beyond U.S. waters.

For vessels opting for equivalency, a flag administration may approve the use of any fitting, material, appliance or apparatus, alternative fuel oils, or other procedures or compliance method, provided it is at least as effective in terms of emission reductions. Foreign-flagged ships that receive an Annex VI equivalency must ensure the flag state submits the equivalency to the IMO's Global Integrated Shipping Information System (GISIS) prior to the ship entering either U.S. ECA. The Coast Guard may review any submissions it receives but will use the GISIS database to confirm the validity of an Annex VI equivalency.

The most common "equivalent" is an exhaust gas cleaning system (EGCS), commonly referred to as a scrubber, used in lieu of low-sulfur fuel oil. Coast Guard MIs and PSCOs will verify that vessels relying on this compliance method have appropriate documentation, and they will conduct spot checks to verify that the equipment is providing effective equivalence to Regulation 14 requirements.

For compliance through exemption or exception, Annex VI permits the administration of a party, in cooperation with other administrations as appropriate, to issue an exemption from specific provisions for a ship to conduct trials for the

development of emission reduction and control technologies and engine design programs. Such vessels will be issued documentation by their administration reflecting the vessel's status. Coast Guard MIs and PSCOs will examine such documentation during the course of their vessel examination.

The one thing that makes the Coast Guard unhappier than non-notification is falsehood. Lies, cover-ups, forged records and associated activities have led to criminal prosecutions.

Dealing with noncompliance

- Noncompliant fuel oil — An MI or PSCO encountering a ship using fuel oil with sulfur content exceeding the allowable limit (0.1 percent while operating in either ECA under U.S. jurisdiction, 0.5 percent elsewhere) will determine why the vessel is not in compliance and whether a valid claim of compliant fuel non-availability exists. Officers in charge of marine inspections (OCMIs) may apply contingency measures that range from allowing the fuel oil to be retained on board until it can be discharged ashore at a later date,

to requiring the vessel to offload the fuel at the current port.

When assessing the validity of a non-availability claim, the MI or PSCO will consider the following factors: Determine whether the ship submitted a fuel oil non-availability report (FONAR); verify if notification was also provided to the flag administration; review records of actions taken to attempt to achieve compliance and any evidence that the ship attempted to purchase compliant fuel in accordance with the voyage plan; obtain a copy of the BDNs for the fuel in use while operating in U.S. waters; determine if the ship is scheduled to receive compliant fuel during the port call (or has already received bunkers); and refer to the ECA Job Aid for deficiency examples and recommended actions.

- Noncompliance due to a marine casualty or equipment failure — Annex VI allows for non-compliant emissions resulting from damage to a ship or its equipment. When equipment approved by an administration under Regulation 4 (equivalency — e.g., scrubber) experiences a failure, the Coast Guard expects a certain degree of redundancy so that the ship may continue to operate in compliance with Regulation 14 (available spare parts on board, or alternative arrangements such as low-sulfur fuel oil tanks).

The Coast Guard will take into consideration a ship that has reported an accident or a defect in accordance with Annex VI, whose flag administration (or its representative)

has issued an interim compliance scheme, and an outstanding condition due to equipment casualty or failure. Additionally, it is highly recommended that companies leverage their safety management system (SMS) to address Annex VI compliance robustly enough to empower shipboard crews to adequately respond to issues through contingency plans.

Coast Guard sanctions

The Coast Guard may utilize a range of sanctions in response to the discovery of Annex VI violations. These include the following, in increasing order of severity:

- Correction of deficiencies and detention order — The Coast Guard may require immediate correction of a deficiency, or correction of the problem within a specified time frame, allowing the vessel to continue to operate in the interim. In addition, the Coast Guard may issue a detention order, allowing the ship to proceed only when the Coast Guard determines that the ship can do so without presenting an unreasonable threat to the marine environment or the public health and welfare.

- Enforcement action — Whether or not the Coast Guard issues a detention order, enforcement action can be pursued for any violation of MARPOL Annex VI. In selecting the appropriate action, Coast Guard personnel will consider such factors as the nature and seriousness of the offense, and the deterrent effect on the individuals involved. Enforcement actions

include a letter of warning; a fine or civil penalty up to \$25,000 (with each day of a continuing violation constituting a separate violation); withholding departure clearance and requiring surety bonds; and referral for criminal prosecution.

Bottom line for operators

The fuel oil sulfur requirements in most U.S. ports (those in ECAs) did not change as a result of the 2020 Regulation 14 amendments. Thus, other than in non-ECA ports, in which 0.5 percent sulfur fuel must now be used, there should be no change to operational practices for operators utilizing U.S. ports.

As with MARPOL Annex I and ballast water requirements, the best advice that can be given to operators is to carefully study and comply with the new rules.

If compliance is not possible, operators of vessels destined for U.S. ports should take all reasonable measures to correct a deficiency, and ensure that timely notification of the deficiency and efforts to rectify it have been relayed to the flag administration and the Coast Guard. There is little that makes the Coast Guard unhappier than failure of notification. Somewhat unhelpfully, the work instruction states that “there is no specific format for notification.” The lack of a standard process, however, does not relieve vessel owners and operators from ensuring that appropriate notice is given. Use of a FONAR for

noncompliant fuel or a notice of arrival is always a good start.

The one thing that makes the Coast Guard unhappier than non-notification is falsehood. Lies, cover-ups, forged records and associated activities have led to criminal prosecutions of individuals and companies for Annex I violations, and they have the potential to do the same in the Annex VI realm.

The ECA Job Aid (Enclosure 1) includes a deficiency matrix on pages 14-22 that is a very useful insight into the Coast Guard Annex VI enforcement process. Shipping company environmental compliance managers should carefully review that matrix and keep it handy for proactive training purposes, and if necessary to aid in responding to any incident that occurs in a U.S. port.

Proactivity is always rewarded, both by preventing incidents from occurring and by demonstrating corporate responsibility and commitment to safety and environmental protection if an incident does occur. Numerous providers can conduct single vessel or fleetwide compliance audits. Such audits best position vessel owners and operators to navigate the dangerous shoal waters posed by Annex VI and myriad other rules in this highly regulated industry. •

Andrew Norris, a retired Coast Guard captain, is a maritime legal and regulatory consultant and president of Tradewind Maritime Services Inc. He can be reached by email at anorris@tradewindmaritimesservices.com or by phone at (401) 871-7482.

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the self-employment taxes that all independent contractors must pay directly to the IRS. That could easily mean shelling out \$10,000 for an entry-level position and \$40,000 for a captain or chief slot every year. Plus, depending on the mariner's personal situation, it could cost an additional \$3,000 to \$12,000 a year out of net earnings to pay for health insurance. There is a lot more financial paperwork involved, too, including filing forms such as Schedule C and Schedule SE with yearly tax returns — documents that may necessitate paying a hefty fee for a tax accountant to complete.

Another financial drawback to sailing as an independent contractor at sea is that, unlike for employees, companies do not pay into a state unemployment insurance program. Years ago, I got laid off from my tanker job right as my wife and I were in the middle of building our house. The first thing I did was apply for unemployment benefits through the Washington State Employment Security Department. As a company employee, once it

was verified that I'd been laid off, in short order I was receiving a weekly unemployment insurance check — money that kept my family afloat for three months until I landed another job with a different tanker company. Had I been an independent contractor, I would have had no access to unemployment insurance funds.

Finally, aside from the financial risks involved in accepting a crew position as an independent contractor, there are possible legal ramifications. When a merchant mariner is hired as an employee crewmember on applicable vessels, there is no doubt that he or she is entitled to the protections offered by the Merchant Marine Act of 1920 (Jones Act). Getting hired as an independent contractor, however, could conceivably nullify those protections. Depending on what company is paying the mariner's earnings, who directs the operations of the vessel, and what duties the mariner performs on board, in the event he or she is injured on the job the company could claim that the independent contractor is not a Jones Act crewmember. Consequently, the provisions of the law — includ-

ing maintenance and cure, and the right to make a claim against the shipowner for damages due to negligence or unseaworthiness — might not apply.

Make no mistake, when you sign a contract to work as an independent contractor crewmember on a commercial vessel, you willingly give up a number of benefits that you'd normally be entitled to as an employee. That's why, in my opinion, the independent contractor scheme is nothing more than a ploy used by exploitative vessel operators to pay mariners less and skirt U.S. law. I can say that, without a doubt, if I were once again offered the opportunity to sail as an independent contractor crewmember, my answer would be a resounding, "No way!"

Till next time, I wish you all smooth sailin'.

Kelly Sweeney holds a license of master (oceans, any gross tons), and has held a master of towing vessels license (oceans) as well. He sails on a variety of commercial vessels and lives on an island near Seattle. You can contact him at captssweeney@professionalmariner.com.

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A Mariner's Notebook

by Capt. Kelly Sweeney

Mariners pay the price for being independent contractors at sea

I had agreed to take the mate's position on a 350-foot ship transiting from a shipyard in Belligham, Wash., to the destination port of Bath,



Maine. It was my second week of working long days in port, helping to get the vessel ready for sea, the plan being to get

underway in a few days. That morning, I was in the chartroom laying out courses for the first leg of the trip when the owner's representative came up to the wheelhouse. Holding a big folder of paperwork, he handed me a sheet of paper and in a thick Norwegian accent said, "You have to sign this." Taking it, I asked what it was. He replied, "It's a contract that states you agree to being an independent contractor working in the mate's position for the voyage, and that you are

not an employee of my company. That, and the daily rate we are offering to pay you."

That was the first time in my career I had ever been asked to sign such a form, and frankly, it made me uncomfortable. Not knowing what kind of problems I could cause myself if I agreed to the contract, I looked it over closely but did nothing more. Impatiently, he stuck his pen in my face and demanded, "Sign this contract now." I retorted, "When I got hired, this independent contractor idea was never brought up. Now you ambush and start strong-arming me to sign a contract that I've had less than five minutes to read and think about." The owner's rep looked at me disdainfully and said brusquely, "If you don't sign this, then forget about making the trip." The job was a "one-off" vessel delivery — I did not plan to work for this company again. So, as he stood there confrontation-

ally, I told him, "Thanks to you, I've decided not to make the voyage. I'll finish my day and then go home."

I had previously met a few mariners who worked as independent contractor crewmembers on commercial vessels, mainly in the Gulf of Mexico, but never having been offered such a contract myself, I had not given it much thought. Afterward, I did some research on being an independent contractor at sea, and I became thoroughly convinced that I had made the right choice not to do the trip. Companies offer positions as independent contractor crewmembers on their vessels, I learned, to make things cheaper and easier for them.

Hiring independent contractors gives the company the opportunity to get crew for less money, avoiding a number of costs that would have been required had the mariners been hired as employees. For example,

employee crewmembers generally receive health insurance, vacation pay/time off and retirement benefits. Not so for those hired as independent contractors. Not only do they have to purchase their own health insurance, but because the company does not deduct Social Security and Medicare taxes for independent contractors, they must personally figure out how much is owed and then pay the IRS estimated tax payments out of their own pocket at required times throughout the year. If they don't, they risk incurring fines for delayed or missed payments.

What all this means in practical terms is that without a guarantee that their daily rate is any higher as a result, independent contractor crewmembers must pay thousands of dollars out of their own earnings. It can take from \$1,000 to \$5,000 for every month on the job just to cover

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