

Casualties: Two die after workboat capsizes during Louisiana spill response drill

PROFESSIONAL MARINER

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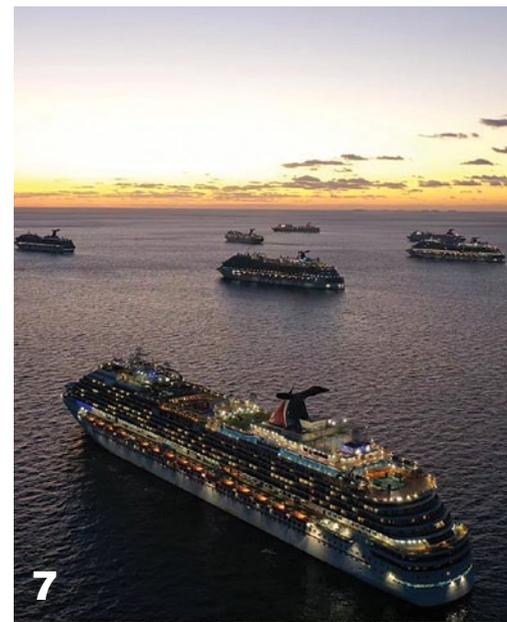
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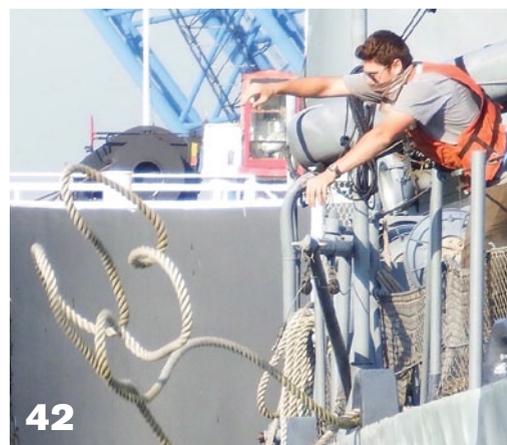
ON THE COVER

Magdalen, a 356-foot trailing suction hopper dredge, works the borrow area for sand off the coast of Surf City, N.J. The recent addition to the Weeks Marine fleet has put its capabilities on display, winter and summer, rebuilding vulnerable dunes and beaches damaged by Hurricane Sandy. See story, page 24. Brian Gauvin photo



- 42 World War II tow down the Hudson takes New York by storm

BY WILL VAN DORP



Signals



Civilian mariners with the Military Sealift Command release anchor chain pins on the submarine tender *USS Frank Cable* while on deployment in the Arabian Sea. Seafarer unions hope to collect penalty pay for MSC mariners who were confined to their ships during the pandemic.

U.S. Navy photo

COVID actions testing relationship between MSC, civilian crews

As the COVID-19 pandemic gripped the planet in March, a “gangway up” order by the Military Sealift Command (MSC) restricted thousands of civilian mariners to U.S. Navy vessels around the world. Five months later, “civmars” are feeling stressed, neglected and chained to their jobs — if not actually physically confined — by a complexity of coronavirus-related circumstances.

Meanwhile, their unions are pursuing a grievance with the MSC, hoping to recover penalty pay for

the hours they spent stuck on ships, and also to send a message that stranding civmars on vessels — while Navy personnel and contractors came and went freely — was unacceptable.

“Pay is the only thing we can request as a grievance,” said Tracy Burke, the government fleet representative for the Marine Engineers’ Beneficial Association.

The MEBA and two other seafarer unions hope the MSC will pay an hourly rate for the time the

mariners were in port, some just a few miles from their homes, but were ordered not to leave their vessels. The larger point: “If they hadn’t restricted only the civmars, there wouldn’t be an issue,” Burke said.

The order and its consequences are straining the relationship between the Navy and the civilian workforce that repairs, resupplies and helps crew U.S. military vessels around the world. While enlisted personnel will endure restrictions

and hardships with a “Yes, sir,” civilian mariners expect more freedom, even within a career that’s always meant long deployments and a military-style sense of dedication.

“I’m seeing it as an inflection point,” said Dr. Sal Mercogliano, who teaches maritime and military history at Campbell University in Buies Creek, N.C. “The military needs mariners, but a mariner is not a sailor.”

Rear Adm. Michael Wettlaufer, the MSC’s commanding officer, issued the order restricting civmars to their vessels on March 21. He cited a need for “swift implementation of actions that will protect the health of our afloat units.” The MSC did not respond to a request for comment for this story.

According to civmars who spoke to *Professional Mariner*, safety was compromised when Navy personnel and Defense Department contractors came aboard the ships and left at will, breaking the health bubble and potentially exposing crewmembers to the coronavirus.

About 10 weeks after Wettlaufer’s order, ship captains were given discretion to allow civmars to leave their vessels when in port, providing some respite from tight quarters and tense crewmates. However, their plight is still complicated by the pandemic. Deployments have been extended for months, and even those who quit contractually have to wait for someone to relieve them. Ever-changing travel restrictions also have made getting home more difficult.

Not planning for a pandemic,

civmars lacked the masks and protective gear that have become household basics. Some lacked basic necessities. A civmar whose vessel was restricted to Naval Station Norfolk (Va.) in April said she

pleaded with an officer to bring her tampons and deodorant. The ship was docked just a few miles from her apartment. She asked to remain anonymous due to concerns about her career.

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While Navy officers were relieved by colleagues, the mariner said that for months she received no indication about when they would rotate in new civmars and allow those on the ship to go home.

“There were no guidelines for when they would relieve us,” she said. “As long as you were on the ship, you stayed with the ship. There’s no plan.”

Her deployment, which started in January, was extended for months. She stayed with the vessel as it sailed to another naval base for repairs. She is now in a hotel, with the freedom to travel five miles from the building. She doesn’t know when she

will return home and suspects other civmars may not want to take an assignment to relieve her for fear of also getting trapped on a ship.

Another civmar, an engineer who has been attached his ship since August 2019, was confined for three months due to COVID-19. The vessel is now in Guam, as is he. He can’t return to his home in the Philippines, where his partner and children live, because the country is not admitting American citizens due to the continuing rise in coronavirus cases in the U.S.

The man, who recently turned 40, said the events of the past six months have caused him to rethink

his relationship with the Military Sealift Command.

“This is a good job, particularly as a young man,” he said, “but once you get older, I’m not sure.” He spoke on video chat, smoking a cigarette outside a Guam bar as a few lights from the base punctured the night sky.

He said he hopes to get penalty pay for all the hours he was stuck on the ship, one action stipulated in his contract. Other than that, he doesn’t know what recourse he can demand.

“I’ll just sit here,” he said. “It’s like I’m a machine. I just go and work.”

Nick Keppler



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Six months into outbreak, cruise lines still repatriating crews by ship

Though the COVID-19 pandemic brought passenger travel to a halt for all major oceangoing cruise lines, many ships were still sailing an estimated 15,000 to 20,000 crewmembers to their home countries in July, according to the Cruise Lines International Association (CLIA).

“What cruise lines have been doing is taking the ships around the world to repatriate crewmembers directly by (sea),” said Donnie Brown, vice president of maritime policy for CLIA. “It has been a Herculean effort.”

Crews are incredibly multinational. In the case of Carnival Corp., for example, crewmembers come from over 110 countries. Cruise lines had to navigate widely varied and evolving border control and health policy restrictions for each country, includ-

ing those that weren’t allowing their own nationals to re-enter — sometimes specifically because they had been on a cruise ship.

The paperwork to receive

Worldwide, most of the 280 CLIA member cruise ships are on “warm layup,” with minimal crew keeping the vessels running.

approval from the Centers for Disease Control and Prevention (CDC) for a U.S. national crewmember to return home on a commercial airline was so daunting that no CLIA member company has used that option, Brown

said. Instead they have turned to charter flights to help complete trips home, with hundreds of planes operating like buses to stop and let crew off along the way. Charters also involve a mountain of paperwork, however, and are prone to last-minute weather cancellations that are disheartening to crewmembers.

Carnival started with 80,000 crewmembers to repatriate at the beginning of the pandemic and had whittled that down to about 1,600 by early August, according to Roger Frizzell, senior vice president and chief communications officer. That \$100 million effort required 49 cruise ships covering more than 400,000 nautical miles, not to mention all the charter flights and the 200 land-based personnel coordinating the travel.



Carnival Corp. reported in early August that it had repatriated all but 1,600 of the 80,000 crewmembers who were aboard its ships at the start of the pandemic. The \$100 million initiative required 49 of the company's vessels.

Courtesy: Carnival Corp.

Worldwide, most of the 280 CLIA member cruise ships are on “warm layup,” with minimal crew keeping the vessels running — the most economical option if passenger operations resume within a year of the shutdown. In the United States, the CDC has a no-sail order in place for cruise ships until Sept. 30, and CLIA announced in early August that it had voluntarily extended the suspension of U.S. oceangoing cruise operations until Oct. 31.

The difficulties with crew repatriation aren't exclusive to the cruise industry. Cargo operators are feeling it too, said Sean Kline,

director of maritime affairs for the Chamber of Shipping of America.

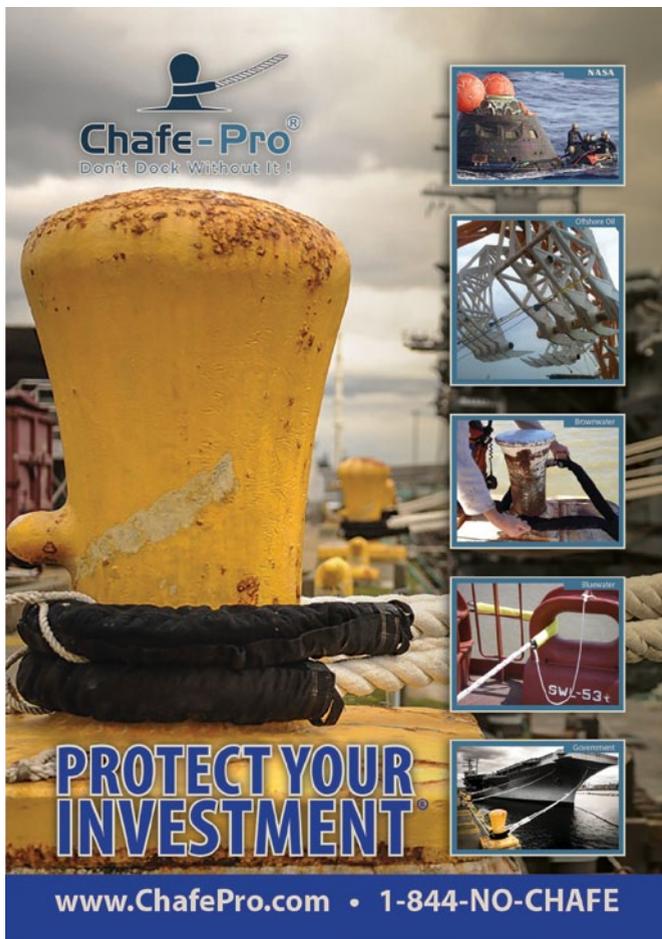
“Ships are moving and crews are working, but they aren't on their usual staffing rotation,” he said. “When they pull into port, local and international governments have lockdowns in place that don't allow for crew changes.”

Before the pandemic, there were about 100,000 crew changes per month to comply with international regulations governing seafarer welfare. As COVID-19 spread, however, flag states petitioned to keep trade flowing with existing crews. At the end of July, the International Chamber of

Shipping estimated that 250,000 seafarers around the world were still awaiting repatriation.

“On our latest calculation, we estimate that a quarter of a million seafarers are trapped aboard ships, unable to be repatriated due to the travel restrictions being imposed by governments around the world,” said Stuart Neil, communications director for the chamber. “There are, therefore, a further quarter of a million seafarers waiting to replace them, some not on contract, which means that we are around half a million seafarers being impacted.”

Amy Paradysz



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Academies get creative to provide sea-term training during pandemic

For Maine Maritime Academy engineering senior Edward Dennis, a pandemic-necessitated “sail” while docked wound up being more worthwhile than normal at-sea training.

“There are fewer of us on board, so we’re getting a lot of one-on-one time,” said Dennis, who trained dockside for a month over the summer aboard the academy’s *State of Maine*. “We’re really getting more hands-on training this way.”

Maritime schools scrambled to find ways amid the pandemic to ensure their seniors could finish degree requirements, sit for U.S. Coast Guard exams to get licensing credentials, accept jobs and move forward.

Maine Maritime opted for a fast sail (holding fast) to safely achieve those goals, said Mark Cote, interim provost and professor of engineering. This meant ensuring that everyone on board *State of Maine* was coronavirus-

free, and that wasn’t a simple proposition.

It was made easier via a high school friend of Maine Maritime President William Brennan. The friend, who works for Puritan Medical Products, connected

T/S State of Maine, shown in September 2019 at Maine Maritime Academy in Castine, stayed home for students’ sea-term training this year. At right, midshipman Edward Dennis completes a pre-start procedure for one of the ship’s generators.



Courtesy Maine Maritime Academy



Brennan to a higher-up at The Jackson Laboratory, who then arranged for COVID-19 testing with 24-hour results. Efficient double testing was thus possible, and students strictly quarantined between results at academy dorms. Food was delivered, and cadets could only leave their rooms for limited, socially distanced outdoor exercise.

Cote expressed appreciation to Puritan, Jackson Lab and the Coast Guard, which allowed shorter-duration dockside training in lieu of sea time. Normally, final at-sea training would take place over 74 days in May, June and part of July. This time, once all 60 people going aboard were cleared medically — 33 students, faculty, staff and crewmembers — training began July 8 in Castine. Noise complaints led to moving the ship to dock space in nearby Searsport, and work wound down Aug. 4.

“The quarantining wasn’t easy or something that will be treasured as a memory,” Cote said. “But all the students were pretty motivated.”

Before this plan was hatched, Dennis was among many seniors at the nation’s maritime schools anxiously wondering if they’d have to indefinitely postpone at-sea work. The husband and father of two said he’s grateful that was avoided, and that nothing substantial was sacrificed by training dockside.

“It does feel like we’re on a cruise, except for not going to

ports and being confined to the ship. We’re still doing the same training exercises,” Dennis said while on board. Students worked on all ship systems; the only real difference was not having the main engine up and running all the time.

Cote said knowing that seniors had experienced at-sea training previously helped make this “an acceptable accommodation for dealing with the pandemic.”

Texas A&M Maritime Academy also offered abbreviated training this year but did sail. Cadets stayed close to home in the Gulf of Mexico, however, instead of heading to Norway, Poland, Iceland, New York and Massachusetts aboard Massachusetts Maritime Academy’s loaner *T/S Kennedy*.

“For the first time ever, our tiny ship was to our benefit,” said Rebecca Watts, the school’s director of marketing and communications, explaining that the vessel’s 75-person capacity limited the number (a total of 62 aboard) needing to quarantine from June 19 to July 3 on the Galveston campus.

All participants were tested five days into the quarantine that preceded the cruise, and then 10 days into it.

“I’m grateful that we were able to push forward,” Watts said. “It took a lot of heavy lifting, but we were really eager to make sure students weren’t delayed. The Coast Guard allowed us to have

a testing facility on campus so that we could get out the door.”

Watts said training under some duress created extra-valuable job candidates. “We think this experience has made them more attractive for jobs in industry,” she said.

California State University Maritime Academy hired a COVID-19 testing company with quick turnaround times to set up on campus, said Donald Maier, dean of the School of Maritime Transportation, Logistics and Management. This allowed 275 freshmen and sophomores to come back to finish spring-semester studies during the summer and, in another stage, 75 seniors finished coursework on campus. Then 23 took part in dockside training to fulfill at-sea requirements. Anyone on campus had to quarantine until getting their test results and could be tested again.

Maier said many students had jobs lined up but couldn’t start without a license, so he wrote to many employers asking them to extend their offers.

Having completed its training cruise through the Caribbean before COVID shut down everything, Mass Maritime was the envy of all. Having its sea term traditionally run January to March worked out “super beneficially this year,” said Brigid Pavilonis, provost and vice president of academic affairs, noting that seniors returned a bit early on Feb. 22.

Patricia McCarthy



The tugboat *Jimmy L.* assists the articulated tug-barge unit *Integrity* as it discharges ballast water upon arrival in Sturgeon Bay, Wis. A Canadian proposal would require U.S.-flagged “lakers” that take on ballast water in Canada to be fitted with treatment systems, even if the water is not discharged there.

Courtesy: Hyde Marine

LCA calls Canadian ballast water proposal ‘economic power grab’

A dispute over ballast water practices could be cover for an economic show of force to block U.S.-flagged vessels from Canadian ports on the Great Lakes, according to the Lake Carriers’ Association, which has asked the Federal Maritime Commission to investigate new regulations proposed by Ottawa.

James Weakley, president of the Ohio-based LCA, said the proposal would force U.S. ships operating in U.S. waters to comply with Canadian ballast water regulations.

“We believe the U.S. should regulate ballast water discharges in the U.S., and it’s basically an economic power grab by the Canadian industry or by the Canadian government on behalf of the Canadian industry,” he said.

The U.S. “laker” fleet — ves-

sels that operate exclusively on the Great Lakes and St. Lawrence River — doesn’t leave the confines of the Lakes and is not subject to International Maritime Organization (IMO) ballast water regulations. The United States is not a signatory to the IMO’s ballast water convention. About half of Canada’s Great Lakes fleet operates in the ocean as well, however, traveling as far as the Arctic Circle and the Caribbean.

Under Canada’s new proposal, those vessels would be required to comply with IMO ballast water rules. Ottawa also would require U.S.-flagged lakers that take on ballast water in Canada to be fitted with treatment systems, even if the water is not discharged there. Lakers must load ballast water while they offload cargo for the safety of the vessels and crews.

A key difference in the viewpoints of the two countries is that the U.S. regulations are based on the route of a vessel, while the Canadian government draws its lines based on vessel registry.

“In other words, the U.S. government treats all lakers the same, and the Canadian government wants all Canadian-flagged vessels to be treated as lakers even if they go to the Arctic, East Coast and Caribbean,” Weakley said.

Canada is within its rights to regulate the U.S. fleet out of handling Canadian exports, he said, but it shouldn’t have the right to regulate U.S.-flagged ships hauling American cargo between American ports, or discharging ballast water in the U.S. that was loaded in Canada. At stake is about \$1 billion a year in economic activity for U.S.-flagged operators.

“Thank God for the Federal Maritime Commission,” Weakley said. “Because without the FMC’s ability to investigate and perhaps impose fees to level the playing field, we have nothing to protect the U.S. fleet.”

In 2012, the U.S. Coast Guard agreed to a request by Transport Canada and the Canadian shipping industry to move the “laker line” that defined the boundary of Great Lakes trade north to Anticosti Island in the Gulf of St. Lawrence. Any vessel that did not pass Anticosti Island was considered a laker and was not required to install a ballast water management system.

Canadian shippers subsequently decided the new boundary was unfair to Canadian vessels that sailed past Anticosti Island to serve the Arctic, the east coast of Canada and the United States. The Canadian government threatened retaliation if the U.S. Envi-

ronmental Protection Agency and the Coast Guard didn’t confer laker status on all Canada-flagged domestic vessels, even if they ventured into the ocean.

“They are retaliating against U.S.-flagged lakers in a very creative way, by regulating the discharges in the U.S. of ballast water loaded in Canada,” Weakley said.

In March, the LCA filed a petition with the Federal Maritime Commission to investigate the issue, and the agency accepted. The LCA asserts that Ottawa’s proposal would create an “unfavorable” condition for U.S.-flagged vessels engaged in foreign trade, and that regulating ballast water loaded in Canada and discharged in the U.S. has no environmental benefit for Canada, only economic gain.

“Canadian-flagged vessels, both lakers and oceangoing vessels, already control 90 percent of the binational Great Lakes

trade,” Weakley said. “Canada’s proposed regulations give them a monopoly.”

On its website, the Ottawa-based Chamber of Marine Commerce says the United States requires ballast water management systems on Canadian lakers that make “occasional voyages” to Canadian east coast ports, creating “an unlevel playing field” since U.S. lakers are exempt from this provision.

“The Canadian and U.S. governments are now on separate regulatory tracks going forward, which could significantly harm both countries’ domestic vessel fleets,” the chamber says.

Neither fleet has found ballast water management systems in the market that can meet the unique requirements of the Great Lakes environment and are operationally or economically feasible, according to the chamber.

Gary Wollenhaupt



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New Great Lakes bulk carrier first built in US in nearly 40 years

A U.S.-flagged bulk carrier is being built in the Great Lakes region for the first time since 1983. Fincantieri Bay Shipbuilding of Sturgeon Bay, Wis., is midway through the two-year project for Interlake Steamship Co., based in Middleburg Heights, Ohio.

Among its cargoes, the River-class self-unloading ship is anticipated to carry iron ore from Minnesota's Mesabi Range to a Burns



Mark W. Barker, president of Interlake Steamship Co., speaks at the keel-laying ceremony for his namesake ship on June 23 at Fincantieri Bay Shipbuilding. The newbuild will have the lines of a classic laker, below left.



Harbor, Ind., steel plant that made the plates from which the vessel is constructed.

“This life-cycle piece is fascinating because that was once normal in America, and it’s not normal in America anymore,” said Interlake President Mark W. Barker. “We’re talking about Minnesota iron ore mines making iron ore pellets being shipped by U.S.-flagged, U.S.-built, U.S.-crewed ships to U.S. steel mills making steel that is being used in a U.S. shipyard in the Great Lakes.”

It was just after the naval devastation of World War I that Congress passed the Merchant Marine Act of 1920, commonly known as the Jones Act, which requires that all goods transported by water between U.S. ports be carried on U.S.-flagged ships constructed in the United States and owned and

The ship's cargo hold design will make it feasible to transport large objects like wind turbine parts throughout the region.

crewed by U.S. citizens. Nowhere in the United States are more goods transported between U.S. ports by water than in the Great Lakes, and much of the fleet doing this work was built in the 1950s.

“The Great Lakes are fresh water, so our assets are long-lived, and we have winter maintenance periods when we shut down,” Barker said. “As a company, in the past 12 years we have invested hundreds of millions of dollars

into repowering, re-engineering and doing technology upgrades to our existing fleet. While they look like vintage lakers on the outside, inside they are very modern from a technology perspective.”

That longevity means that Fincantieri Bay, which has built several articulated tug-barge (ATB) units in recent years, is now building its first new self-propelled cargo ship in a generation.

“This freighter is exciting for this generation of shipbuilders because this vessel could last 70, 80 or even 90 years,” said Melissa Wollering, a spokeswoman for Fincantieri Marine Group.

Even the ship’s name, *Mark W. Barker*, evokes a changing of the guard. Interlake Chairman and CEO James R. Barker, who is 85 and has a namesake bulk carrier that has been in service since 1976, has named the new ship after his 48-year-old son as a symbol of the company being part of the industry for a long time to come.

Mark W. Barker will be the 10th vessel in the Interlake fleet, which currently carries about 20 million tons of cargo annually. While some of those ships are too big to pass through the Welland Canal, *Mark W. Barker* — at 639 feet long and 78 feet wide — will be able to transit the entire St. Lawrence Seaway and navigate the Soo Locks.

“This gives us more flexibility,” *Mark W. Barker* said. “The Great Lakes ports are on lots of rivers — the Cuyahoga in Cleveland, the Rouge in Detroit, the Maumee in Toledo, and the Calumet in Chicago. We need to be in Cleveland, which has a very narrow and windy river, and this boat has been dimensionally optimized to make sure that it can service that market.”

As one of its primary uses, *Mark W. Barker* is expected to transport road salt from a mine in Cleveland to municipalities around the Great Lakes. Like the rest of the Interlake fleet, the new ship will be self-discharging, with a conveyor system to dump the salt or other raw materials such as iron ore and stone.

Unlike the rest of the fleet, *Mark W. Barker* will have a square cargo hold with wide load-bearing hatches — a design not currently used on the U.S. side of the Great Lakes, but one that will make it feasible to transport large objects like wind turbine parts throughout the region.

Construction of the ship is providing work for hundreds of

Fincantieri’s skilled trade workers. Partners in the project include the American Bureau of Shipping, ArcelorMittal, Bay Engineering Inc. of Sturgeon Bay, EMD, Caterpillar, EMS-Tech,

Lufkin, Kongsberg and MacGregor.

The new bulk carrier is scheduled to undergo sea trials in spring 2022.

Amy Paradysz



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Global project to fight biofouling asks industry to take seat at table

Invasive aquatic species have a tremendous negative effect on the world's marine ecosystems. According to the International Maritime Organization (IMO), the economic impact totals several hundred million dollars per year. For shipowners, the cost of invasive and non-invasive interlopers is even higher.

To address the problem, the GloFouling Partnerships project is aiming to build capacity in developing countries to implement biofouling guidelines. Initiated in December 2018, the project is a collaboration between the IMO, the Global Environment Facility, and the United Nations Development Program.

In addition to those entities, 12 developing nations and small island states participate as lead partnering countries. Australia, New Zealand, Canada, Germany and Sweden also are lending their support, as are six regional environmental organizations and over 60 strategic partners — a mix of industry associations, international non-government organizations, universities and research facilities.

The first initiative that GloFouling Partnerships will undertake is a study on the effect of drag on marine fuel consumption. The reason this topic became a priority is in part because it directly addresses climate change.

“Obviously, the better fouling on a ship's hull is managed, the more efficient it is going to be in terms of fuel consumption. So there is a great commercial interest in improving fouling management from the industry side,” said Dr. Lilia Khodjet El Khil, project manager for GloFouling Partnerships.

Another reason this subject was chosen is that it engages the current members of the Global Industry Alliance (GIA) on Marine Biosafety, recently established under GloFouling Partnerships, and hopefully will attract more industry partners.

“By getting involved in (GloFouling Partnerships), compa-



In addition to the environmental impact, hull-fouling organisms increase drag and subsequently the cost of fuel. Hull cleanings and the application of antifouling paint further inflate operational costs for shipowners around the world.

nies can have input into global regulations applicable worldwide,” Khodjet El Khil said. “Participating members have the opportunity to share their concerns, knowledge, operational expertise and technical expertise in contributing to policy development.”

Currently, all the maritime industry has to steer it are domestic biofouling regulations that vary from country to country. If there is a push for global guidelines, Khodjet El Khil wants industry representation at the table.

“These technical, operational and commercial angles are not always entirely understood by policy developers,” she said. “Therefore, those who work in the field every day can provide valuable input.”

NACE International was an early supporter of the project and joined as a strategic partner. Buddy Reams, chief maritime officer for the nonprofit group, cited the alignment between the project’s objectives and NACE’s mission: to equip society to protect people, assets and the environment from the adverse effects of corrosion. Houston-based NACE was established in 1943 as the National Association of Corrosion Engineers.

NACE also saw value in the exchange of information. In 2017, the group initiated a Technology Exchange Group (TEG) titled “Ecological Risks of Hull Fouling.” Reams explained that

TEGs serve fundamentally as an information-sharing platform.

“We viewed the global efforts to combat (invasive aquatic species) and the technologies being developed to deal with biofouling to be correlative to the corrosion-prevention performance of hull coatings,” he said. “As the dialogue and objective information-sharing grew within that TEG and with a growing network of other coordinating groups and stakeholders, it seemed natural to integrate that with GloFouling Partnerships.”

Launching a global initiative like GloFouling Partnerships is a huge undertaking, and the coronavirus pandemic adds another level of complexity. Although the situation is difficult right now, Khodjet El Khil encouraged industry leaders to join the initiative.

“The industry is at the sharp end of achieving the goal, which is to reduce fouling, protect biodiversity, and achieve greater energy efficiency,” she said. “We want to do the right things now, and there is an opportunity to do this, to do things right. By getting involved with the GIA, these industry champions have an opportunity to partner with the IMO and the United Nations to show their leadership in marine environment matters, increasing their global visibility and identifying innovative solutions on biofouling management.”

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U.S. Coast Guard personnel board a recreational vessel during a crackdown on illegal charters in Ponce Inlet, Fla., in 2018. The CGIS Tips app aims to make it easier for whistleblowers to report marine infractions confidentially.

App provides anonymous path to report violations on the water

The U.S. Coast Guard Investigative Service (CGIS) has received numerous reports of marine infractions after launching an app for anonymous tips in May.

“We got one on an illegal charter performing livery for hire, and they even sent photos,” said Michael Berkow, director of CGIS. The images sent via the CGIS Tips app showed that the boat had some of its flotation foam removed, and its horsepower exceeded its rating.

“If you spend the money to be legally licensed as a captain, it must make you crazy to see somebody just put their boat up for hire,” he said.

In another tip, Berkow said the whistleblower left the following message: “I know this guy’s merchant mariner credential has been removed

and I still see him on a commercial vessel.” Still another reported a drunken mariner at the helm of a commercial vessel.

Prior to the official launch of the app, Berkow said there were a couple of limited rollouts while CGIS waited for the final blessing from the Department of Homeland Security and other government authorities. CGIS Tips can be downloaded from the App Store for iOS or from Google Play. In addition to sending a tip via smartphone, users can do so online at www.uscg.mil/Units/Coast-Guard-Investigative-Service/.

One of the primary law enforcement benefits of the app is that although tips are made confidentially, whoever is providing the information can allow CGIS agents to request more details. The service

is considered a military criminal investigating organization that follows up on high-profile incidents like the *Conception* dive boat fire in California, the sinking of *Stretch Duck 7* in Missouri, and crimes like smuggling drugs.

For the commercial mariner, the service also follows up on fraudulent charters, expired or non-existent mariner credentials, and illegal Transportation Worker Identification Credentials (TWICs).

“It gives us the opportunity to identify these illegal charter operations that risk the public and undercut legitimate businesses,” Berkow said.

Once a tip is provided, it reaches more than 500 law enforcement accounts nationwide, as well as military and federal agencies.

Berkow hopes the app will result in more tips on oily water separator cases. Commercial vessels are required to run bilge water through a cleaning system to remove oil and other pollutants before pumping it overboard. Many don't, however, and the water is discharged through what is infamously known as a "magic pipe." In 2016, Princess Cruise Lines was hit with fines totaling \$40 million for violating the law.

“If you spend the money to be legally licensed as a captain, it must make you crazy to see somebody just put their boat up for hire.”

Michael Berkow, CGIS director

“Now with the app, the crew-member has a direct way to get in touch with us and to attach video and photographs of the illegal activity,” Berkow said.

Regardless of the law being broken, Berkow hopes that private citizens as well as commercial representatives will use the app to report suspicious marine activity.

“We're very hopeful that this is going to provide an easy path for citizens who are aware of illegal acts in the maritime community to report, and then we get at it,” he said.

Eric Colby

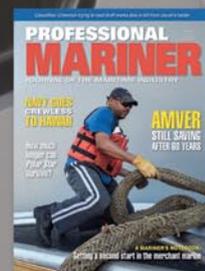


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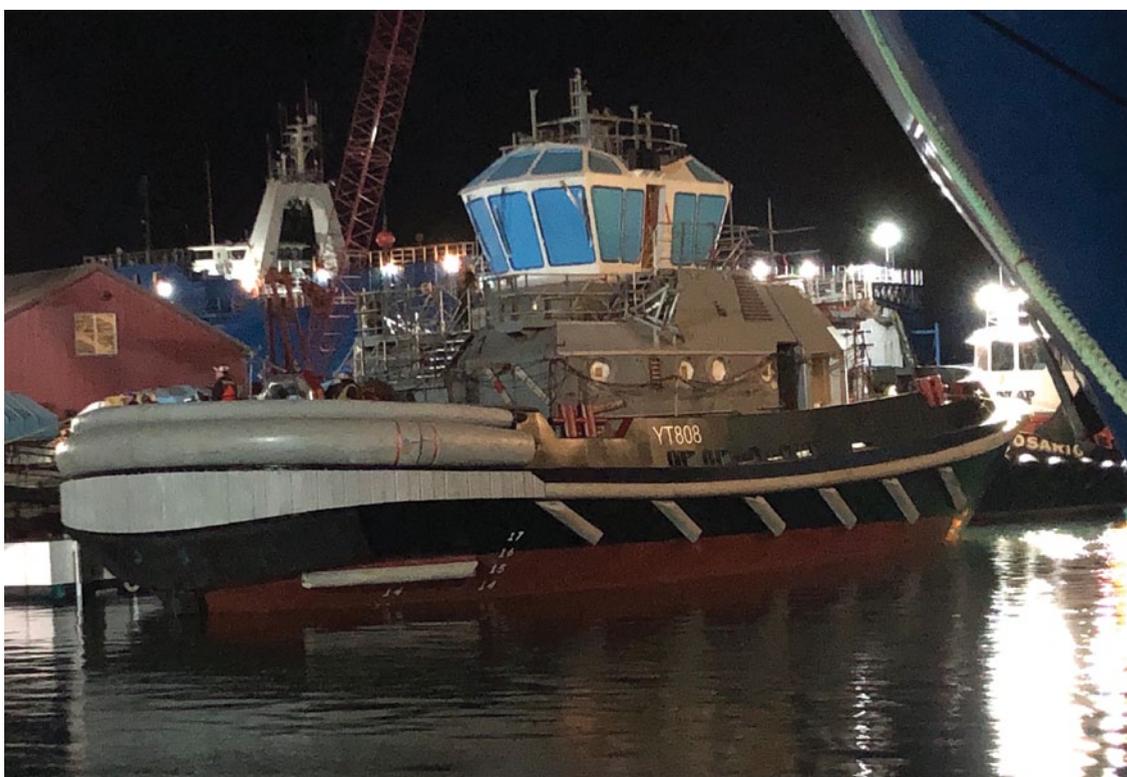
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Towing

by David A. Tyler



The lead vessel in the YT 808 class of Navy tugboats awaits the last phase of construction in May at Dakota Creek Industries in Anacortes, Wash. The new series will replace tugs built from the mid-1960s to mid-1970s.

Navy continues to modernize yard tug fleet with launch of YT 808

The U.S. Navy took another step toward replacing its aging yard tugboats with the launch of the first vessel in the YT 808 class at Dakota Creek Industries in Anacortes, Wash., in May. It follows the launch of six YT 802-class yard tugs between 2009 and 2011.

“This is an exciting milestone for this program, as the YT 808-class tugs will replace tugs built in 1964 through 1975,” said Mike Kosar, program manager of the Support Ships, Boats and Craft Program Office within Program Execu-

tive Office Ships (PEO Ships) at U.S. Naval Sea Systems Command. “With five more in the pipeline, we’re excited to get these tugs underway and operational.”

The YT 808 class will be used for towing and ship-handling duties for aircraft carriers, surface

ships, submarines and barges. Acceptance trials for the initial tug in the series are scheduled for September, with delivery of the other five tugs planned for this fall through the fall of 2021, according to Dan Shimooka, principal assistant program manager

of Service Craft and Seaborne Targets for PEO Ships.

The YT 808 is 90 feet long and 38 feet 3 inches wide, with a navigational draft of 16 feet 6 inches. The tug is powered by twin Caterpillar 3512E main engines, each delivering 1,810 horsepower, driving Schottel SRP 340 fixed-pitch z-drive thrusters. Bollard pull is estimated at 40 metric tons, with a top running speed of 12 knots.

The tug has two rows of cylindrical fendering and a lower course of “W” fenders at the bow, according to designer Robert Allan Ltd. (RAL) of Vancouver, British Columbia. The fire pump is capable of delivering 2,000 gallons per minute through a pair of monitors. The YT 808 also has a remote folding

mast. Although it is a day boat, there are quarters for up to six crewmembers.

The initial YT 808 is the newest vessel in the Navy’s effort to modernize its tug fleet. The class will replace YTB tugboats at the Portsmouth Naval Shipyard in Maine and in the Pacific Northwest, which are between 45 and 55 years old and are difficult to maintain due to obsolete equipment, according to Shimooka.

Starting in 2009, six boats in the YT 802 class were built over a two-year period by the now-defunct J.M. Martinac Shipbuilding Corp. in Tacoma, Wash. Before that, the last new Navy yard tugs were built in 1975. The Navy still operates seven of the YTB 760-class tugs, which were built in the 1960s.

Both the YT 802 and YT 808 classes were designed by Robert Allan Ltd. The 808 class is based on the company’s Z-Tech 4500 tugs and has several new features compared to the 802. Many modifications were based on feedback from captains as well as new Navy requirements, according to the designer.

The biggest change in the YT 808 class is due to the U.S. Environmental Protection Agency’s Tier 4 emissions standards for marine diesel engines. The addition of the equipment required to comply with Tier 4 — primarily a selective catalytic reduction (SCR) system to reduce nitrogen oxide in the exhaust — meant a major redesign of the interior of the tug.

“(The SCR) units

YT 808 at a glance

- Designer: Robert Allan Ltd., Vancouver, British Columbia
- Builder: Dakota Creek Industries, Anacortes, Wash.
- Mission: Ship-handling tug for U.S. Navy
- Length: 90 feet
- Beam: 38.25 feet
- Depth: 16.5 feet
- Draft: 16 feet
- Speed: 12 knots
- Bollard pull: 40 metric tons minimum
- Caterpillar 3512E EPA Tier 4 main engines
- Schottel SRP 340 z-drives
- Six berths

are big and bulky,” said Evan Gatehouse, project director and senior naval architect at RAL. “They are continuing to be a challenge because tugboats already have a cramped engine room. These units are almost half the volume of an engine, so finding room for them you basically need to reconfigure. ... Previously it was a straightforward exhaust system.”

Adding to the challenge was the diesel exhaust fluid (DEF) for the exhaust aftertreatment. The fluid is corrosive and is usually housed



The design of the YT 808 class is based on the Z-Tech 4500 series from Robert Allan Ltd. The 808s will feature modifications from the Navy’s YT 802 class based in part on feedback from tugboat captains. Courtesy Robert Allan Ltd.



Courtesy Dakota Creek Industries

in stainless-steel tanks, but it is sensitive to heat. “So you don’t want to put it in the engine room, because the heat breaks it down sooner than you’d like,” Gatehouse said. In the YT 808, two 1,000-gallon DEF tanks are located in the z-drive compartment, port and starboard. They are shaped like a trapezoid to fit tightly against the side hull frames.

Another modification from the YT 802 class involves the fendering. The 802’s side fendering was just along the sheer line, Gatehouse said, so

The diesel exhaust fluid (DEF) tanks in the z-drive compartment are shaped like a trapezoid to fit tightly against the side hull frames.

RAL added diagonal fendering for handling low-freeboard barges. At the same time, the Navy did not want this modification

to increase the drag of the tug. In the first design concept, the diagonal fendering at the stern dragged in the water, “so the most aft diagonal fendering has been chopped a bit shorter just to keep it out of the stern wave,” he said.

Fendering changes also were made to protect submarines. The Navy requested that the underwater fendering, wrapped around the skeg in the YT 802 class, be extended toward the sides of the tug in case the boat comes in at an angle to a submarine and touches it.

“These submarines are

The first YT 808, pierside at Dakota Creek Industries, will be followed by five other tugs in the series. Acceptance trials for the first boat are slated for September.

coated with those sound-absorbing tiles, and they are kind of delicate,” Gatehouse said.

The Navy requested that a single bitt aft in the YT 802 class be replaced by an H-bitt to make towing over the stern safer. The articulating hydraulic brow, used to transfer personnel to ships alongside the tug or down to submarines, also has been improved.

Other new features are a slightly larger aft hydraulic capstan for tightening lines; upgraded commercial naviga-

tion electronics and communications equipment; and more durable coatings and nonskid surfaces on deck, Shimooka said.



Courtesy Robert Allan Ltd.

A CCTV monitoring system also has been added.

JonRie InterTech, which supplied the deck machinery for the YT 802 class, also provided it for the YT 808 class. The tug's bow features a JonRie Series 210 heavy-duty hawser winch with the company's standard

The familiar lines of the RAL-designed superstructure belie the changes inside. The installation of equipment to meet EPA Tier 4 emissions standards required a major redesign by the architect.

render block. The winch has the capacity to spool 600 feet of 7-inch hawser with a line pull of 20,000 pounds, a line speed of 175 feet per minute, and a brake capacity of 300,000 pounds.

A JonRie Series 421 heavy-duty capstan on the stern has a line pull of 15,000 pounds and a line speed of 30 feet per minute. A 75-hp hydraulic power unit in the engine room runs the winches.



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photo by Brian Gauvin



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At Work



Weeks flagship dredge builds its name on Jersey shore

Story and photos by Brian Gauvin

The winter of 2018 saw the trailing suction hopper dredge *Magdalen* vacuuming sand from a borrow site off the coast of Surf City, N.J., and pumping

City, Fla., had recently joined *R.N. Weeks* and *B.E. Lindholm* in the Weeks Marine hopper dredge fleet (*American Ship Review* 2019). In the summer of 2020, *Magdalen* nourished the beaches and dunes at Sea Bright and Long Branch on the Jersey shore.

In mid-August, the vessel was scheduled to travel to Hampton Roads, Va., to join the ongoing project “to deepen and widen the Thimble Shoal Channel leading to Virginia Port Authority-owned public terminals, many private marine terminals, and the world’s largest naval base (at Norfolk,” said Mark Sickles, director of corporate and government relations for Weeks Marine.

Magdalen was designed specifically for U.S. coastal dredging conditions by Netherlands-based Royal IHC. It has a hopper capac-

ity of 8,550 cubic yards, more than the combined volume of its two fleet mates. With a hull form that includes a large bulbous bow, *Magdalen* also has the edge in speed and fuel efficiency — the money in dredging is in dredging, not steaming between two points. The vessel’s ability to operate close to shore minimizes the length of the shore discharge line and maximizes its self-emptying speed.

The expanded pumping capacity and automation further maximize the dredge’s efficiency. *Magdalen* has a suction arm on the starboard side, a design that optimizes the capability of the IHC single-wall dredge pump. On the port side is an IHC double-walled booster pump for shore discharge operations. The configuration enables the vessel to pump longer distances via its own dredging and power generation plant.



Magdalen, above, dredges the borrow area on the ocean floor 6.5 miles off Surf City, N.J. The vessel’s bow coupling, left, hydraulically locks the float hose to the discharge pipe system.

it ashore to replace a 20-foot-high dune reclaimed by the ocean during Hurricane Sandy’s hungry visit in 2012.

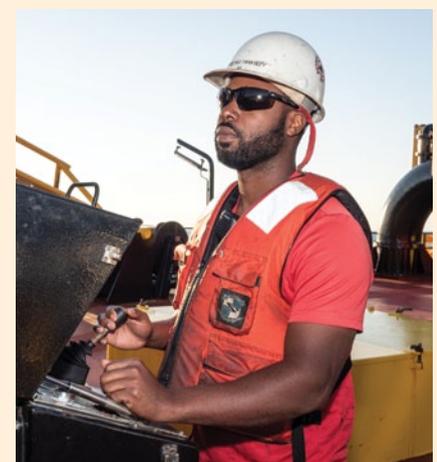
The 356-foot dredge, built by Eastern Shipbuilding in Panama



Magdalen's massive drag head stands ready to be deployed as the ship heads to the dredge site.



Chief engineer Scott Sirois, above, adjusts controls on the local operating console for the main engines. Below, *Magdalen* drag tender James Willis monitors the discharge of dredged sand to the beach.



Able seaman Antonio Tanksley, operating the bow connection winch drum, pulls the pickup wire aboard.

“From the outset, her performance exceeded expectations,” Sickles said. “In fact, it was her production that led Weeks Marine’s executives to sign a contract to build her sister vessel at Eastern Shipbuilding.” The new vessel will be named *R.B. Weeks* in honor of Richard B. Weeks, a co-founder of the company and husband of Magdalen Weeks.

Though *Magdalen's* inaugural beach nourishment project and last summer’s work were similar, COVID-19 added another layer of corporate and personal responsibility.

“Strict travel restrictions, onboard limitations, heightened sanitation routines, regular temperature checks, personnel surveys prior to returning to the job site and more are part of the new normal on Weeks project sites as well as in the office,” Sickles said.

The delivery of *Magdalen* in 2017 was a milestone in the company’s century-long history, according to Weeks Marine President Richard S. Weeks.

“With the demand for land reclamation and beach nourishment growing, we believe that better tools are needed to retain our competitive edge,” he said. “She is a very important part of our continued growth as a fully integrated marine construction company.”

Magdalen SPECIFICATIONS

Owner/operator: Weeks Marine Inc., Cranford, N.J.
 Designer/builder: Royal IHC, Kinderdijk, Netherlands/Eastern Shipbuilding Group, Panama City, Fla.
 Dimensions: L: 356' B: 79' D: 27'
 Mission: Trailing suction hopper dredge
 Crew size: 21

PROPULSION

- (2) GE 16V250 diesel engines, 5,682 hp each
- (2) Siemens Flender gearboxes
- (2) Wartsila controllably-pitch propellers
- Wartsila FPP tunnel thruster
- GE 6L250 auxiliary generator, 1,423 kW
- Caterpillar C18 emergency generator, 425 kW

DECK EQUIPMENT

- (2) Ridderinkhof anchor windlasses
- Ridderinkhof mooring capstan
- Techrane F80-85 crane
- Techrane F120-52 crane

NAVIGATION/COMMUNICATIONS

- IHC Systems dynamic positioning/dynamic tracking system
- Furuno FAR-2107 radar
- Transas Navi-Sailor ECDIS
- Simrad GC80 gyrocompass
- Sperry Jupiter magnetic compass
- Furuno FA-150 AIS
- Simrad AP80 autopilot
- Furuno GMDSS radio suite
- VSAT satellite connection

ADDITIONAL EQUIPMENT

- Fassmer freefall lifeboat
- Fassmer rescue boat
- Fixed CO2 fire suppression
- Conical bottom valves for dumping material
- Self-emptying doors and self-emptying channel

Casualties

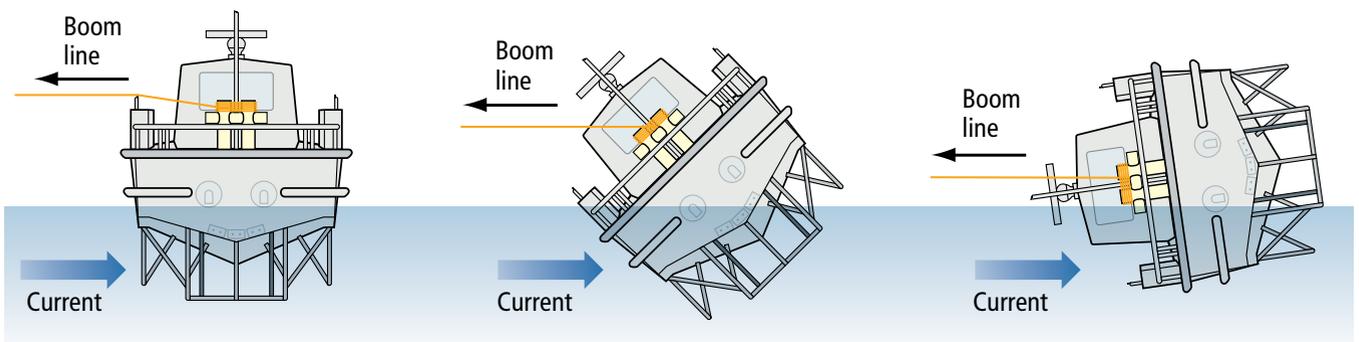
Workboat capsizes during Louisiana oil spill exercise, killing two

A workboat that capsized and sank during a boom deployment exercise on the Lower Mississippi River, killing both people on board, turned broadside to the current moments before it rolled over.

National Transportation Safety Board (NTSB) investigators

of the current broadside to the *MSRC 8-1*'s underwater hull, attached framework and large rudders, created a heeling moment which rolled the boat to port quickly, overcoming its inherent stability and capsizing it," the NTSB said in its report.

Katelyn Carlisle, 24, and Ruben Arellano, 48, both of whom worked for the Marine Spill Response Corp. (MSRC), died in the incident despite feverish efforts by the MSRC crew, an Associated Branch Pilots crew and a Coast Guard rescue swimmer to save



could not explain why *MSRC 8-1* maneuvered abreast to the fast-moving river at mile 18 near Boothville, La., on Jan. 16, 2019. The abrupt turn to starboard placed the 32-foot boat in a perilous position, with the towline still connected to the oil spill response vessel (OSRV) *Louisiana Responder*.

"The static force that the boom towline exerted on (*MSRC 8-1*'s) H-bitt, combined with the force

An illustration from the NTSB report depicts how the forces of the current and the boom towline acted to capsize *MSRC 8-1*. The boat is shown after being salvaged from the Lower Mississippi River.



them. The incident happened at 1038.

MSRC, in a prepared statement, said the NTSB findings align with those from an investigation conducted on the group's behalf by the American Bureau of Shipping (ABS). MSRC has since added buoyancy collars and towing guides on the stern of its 32-foot workboats to reduce the capsizing risk.

"Our commitment to our customers and our stakeholders is to be fully transparent about our learnings from this painful incident to prevent anything like it from occurring in the future," MSRC spokeswoman Ceren Karaer said. "MSRC does not dispute the overall NTSB findings."

The nonprofit MSRC is the largest oil spill response organization in the United States. It has vessels and equipment positioned on all three U.S. coasts, the Great Lakes and Hawaii to rapidly respond to pollution and spills. The 210-foot *Louisiana Responder*, based at Fort Jackson near Venice, La., carried myriad spill response equipment, including *MSRC 8-1*.

Munson Aluminum Boats built the 640-hp twin-screw *MSRC 8-1* in 1992. It had an enclosed cabin with a crawl space accessible beneath the helm chair. The vessel's gunwales had a series of cleats and small bitts, and a sturdier H-bitt was installed just aft of amidships.

Munson boats are common across the MSRC fleet, and they

are routinely engaged in training exercises. Just a week earlier, another OSRV and its workboat performed the same maneuvers, in the same location with the same river conditions, without incident. MSRC records showed no previous accidents with its 32-foot Munson crafts, the NTSB report said.

Louisiana Responder left its

“Our commitment to our customers and our stakeholders is to be fully transparent about our learnings from this painful incident to prevent anything like it from occurring in the future.”

Ceren Karaer,
MSRC spokeswoman

dock at mile 20.4 at 0830 for the Boothville Anchorage a few miles downriver. There were seven MSRC responders on board, along with the ship's typical six-person crew. An observer from the federal Bureau of Safety and Environmental Enforcement also came along.

The training exercise was typical for the oil spill responders. *MSRC 8-1* was to deploy 660 feet of inflatable containment boom from *Louisiana Responder*'s stern. The small boat would make a “J” pat-

tern with the boom that, in a real spill, could corral product on the surface while *Louisiana Responder* used skimmers to remove it.

Arellano and Carlisle boarded *MSRC 8-1* after an extensive safety briefing. The weather was clear and calm, with the current running between 3 and 4 knots when the boat entered the water at about 0935. Arellano was at the controls while Carlisle handled the boom topline.

Carlisle secured the topline to a bitt on *MSRC 8-1*'s port bow. She then used a series of half-eights to secure roughly 55 feet of topline to the top of the H-bitt, rather than through it. Several senior responders observed her work, and they later told federal investigators she correctly secured the line.

In a typical evolution, the Munson boat backs away from *Louisiana Responder* until the boom is fully deployed, at which point crew secure the boom to the OSRV's stern. Then, the smaller boat comes forward to slacken the topline while the deck hand removes it from the forward bitt. The Munson boat then repositions itself so the topline runs aft from the H-bitt.

That evolution went awry on the morning of the accident. The master and chief mate on *Louisiana Responder* watched *MSRC 8-1* unexpectedly turn a few degrees to port after Carlisle removed the line from the forward bitt. “Then, seconds later, about 1038, they saw *MSRC 8-1* come to starboard at a fast rate of turn, which put the

boat perpendicular to the current,” the NTSB said.

The capsizing spurred a massive rescue effort. *Louisiana Responder* deployed its rescue craft within four minutes. Two ABs aboard the craft saw the Munson boat floating upside down roughly 760 feet away. They reached *MSRC 8-1* and tapped the hull. The ABs got a response from Arellano. They also heard Carlisle’s voice inside the vessel. The two crewmembers were not in the same space.

The rescue boat could not move *MSRC 8-1* against the current. *Louisiana Responder* hauled in the boom to bring the Munson boat toward its transom, where the crew hoped to right it with a crane. Meanwhile, at 1052, responders could no longer hear Carlisle. Crew aboard an approaching Associated Branch Pilots vessel could not find her in the water. Her body has not been recovered.

The Coast Guard deployed multiple assets, including a helicopter that dropped a rescue

swimmer onto the pilot boat at about 1100. The response boat *CG 45707* from Station Venice arrived at about the same time. The rescue swimmer entered the 43-degree water and proceeded to *MSRC 8-1* but could not find a door handle. He tapped the hull and got a response from Arellano.

“The rescue swimmer told the man to follow his knocks on the hull back to the area where the cabin door was located,” the NTSB said. “When the operator got to the estimated location of the door, the rescue swimmer got back into the water and reached deep into the boat. However, he was still not able to locate the operator.”

Louisiana Responder ultimately hauled in all 660 feet of boom, but the towline snagged on the stern ramp, leaving the Munson boat upside down about 100 feet away. Further efforts to bring the boat toward the OSRV weren’t successful. *MSRC 8-1* sank at 1122. Arellano was found inside the crawl space when *MSRC 8-1* was salvaged Jan. 18.

Investigators tried to determine what caused the vessel to come broadside to the current, but they couldn’t pinpoint anything. They learned Arellano was trained and experienced handling the 32-foot Munson boat. They also determined that a mechanical failure likely did not occur. Drug and alcohol testing was negative.

“Therefore,” the NTSB report said, “the circumstances for which *MSRC 8-1* turned perpendicular to and fell back with the current, with the boom towline under tension and still tethered to *Louisiana Responder*, are unknown.”

MSRC hired ABS to investigate the sinking and identify lessons that could improve safety. MSRC has shared those lessons with its customers, regulatory agencies, industry groups and other oil spill response organizations.

MSRC 8-1 was declared a constructive total loss with damage estimated at \$250,000. A sheen of oil was reported on the water after the boat sank.

Casey Conley



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Sandy Hook pilot dies after fall while boarding oil tanker

A Sandy Hook pilot fell while boarding an oil tanker at the entrance to New York Harbor and later died at a Staten Island hospital. The incident, which occurred at about 2230 on Aug. 5, was the second fatality in eight months involving a member of the Sandy Hook Pilots Association.

Capt. Timothy Murray, 40, of Malverne, N.Y., was climbing aboard *Eagle Turin* when he fell off the pilot ladder. He landed on the pilot boat *America*, Coast Guard spokesman John Hightower said. The incident happened near the Ambrose Sea Buoy on the edge of New York Harbor.

“The (Coast Guard) team is still in the early stages of investigation into this matter,” Hightower said in a phone interview. “Initial estimates indicate that the pilot fell from 20 to 30 feet from a straight pilot ladder.”

The Coast Guard expects the inquiry to continue for some time. The ongoing status limits what the service can disclose, Hightower said.

The 807-foot *Eagle Turin*, registered in Singapore, was inbound to the Port of New York and New Jersey on the night of the incident. AIS data shows the ship was arriving from Whiffen Head in Newfoundland.

A National Oceanic and Atmospheric Administration (NOAA) weather buoy at Ambrose Light



Courtesy Bill Word/Christopher T. Jordan Funeral Home



The Coast Guard estimates that Capt. Timothy Murray fell 20 to 30 feet while boarding *Eagle Turin*, shown earlier this year in the Houston Ship Channel. Murray landed on the pilot boat *America* and was pronounced dead at a Staten Island hospital.

recorded average winds of 5 to 6 knots during the time frame when Murray fell, with 3- to 4-foot seas.

Crew aboard *America* issued a mayday call immediately after Murray fell. The Coast Guard responded with a boat from Station Sandy Hook, and it was joined by a New York Fire Department (FDNY) boat crew and city police helicopter.

“FDNY transferred EMTs to provide CPR on the pilot vessel and escorted it to the Edgewater pier,” Hightower said, referring to a point on Staten Island. Shoreside paramedics then transferred Murray, who was in critical condition, to Staten Island University Hospital North Campus, where he was pronounced dead.

The fatal incident was the second in less than a year involving a Sandy Hook pilot. Capt. Dennis Sherwood of Freehold Township, N.J., fell at about 0430 on Dec. 30, 2019, while climbing aboard the 982-foot container-ship *Maersk Kensington*. He also landed on the pilot boat that had taken him to the ship.

Maersk Kensington had a combination pilot ladder and accommodation ladder, with a trap door in the platform where the ladders met. Sherwood’s fall has spurred new scrutiny of the arrangement from pilots groups, who have called for safety improvements from the International Maritime Organization (IMO).

The Coast Guard has not released details from its investigation into the incident involving Sherwood. Hightower said *Eagle Turin* had a straight ladder rather than a combination embarkation arrangement.

Current safety guidance on pilot transfer arrangements, enforced by IMO member states



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and contained in SOLAS Chapter V, Regulation 23, entered into force in July 2012.

Since January 2015, the Coast Guard has investigated seven incidents involving pilot ladders. These incidents resulted in seven injuries and one fatality, according to Coast Guard spokeswoman Amy Midgett.

Sean Kline, director of maritime affairs for the Chamber of Shipping of America, told *Professional Mariner* after the Sherwood fatality that the group's members are encouraged to inspect equipment and practice due diligence to prevent future accidents.

“Embarking a pilot is an extremely dangerous evolution, though it may appear as routine, because ships and pilots must conduct this evolution on a consistent basis, sometimes in the dark, wind, rain, snow, etc., with few other options.”

Murray is survived by his wife, Erin, and five children. He graduated from SUNY Maritime in 2002 and worked for Polar Tankers and Staten Island Ferry before joining the Sandy Hook Pilots in 2007.

“He dedicated his professional life to preserving the integrity of the Sandy Hook Pilots Association in any way he could,” Murray’s obituary said. “But first and foremost, Tim was a big-hearted family man, always taking care of his wife, Erin — his first and only love — and their five children.”

Casey Conley

Sixty-three injured in fire aboard Navy ship; vessel's fate unknown



news conference. “There is obviously electrical damage to the ship, there is structural damage to the ship, and mechanical damage to the ship that we need to assess in much more detail before we make a final determination as to next steps.”

Gilday, in a post-incident email to high-ranking military counterparts, said the fire likely started six decks below the flight deck in a lower vehicle storage area before spreading “aft, forward and up.”

The email said sections of the flight deck are warped and bulging, according to multiple published reports. Eleven of the ship’s 14 decks sustained water

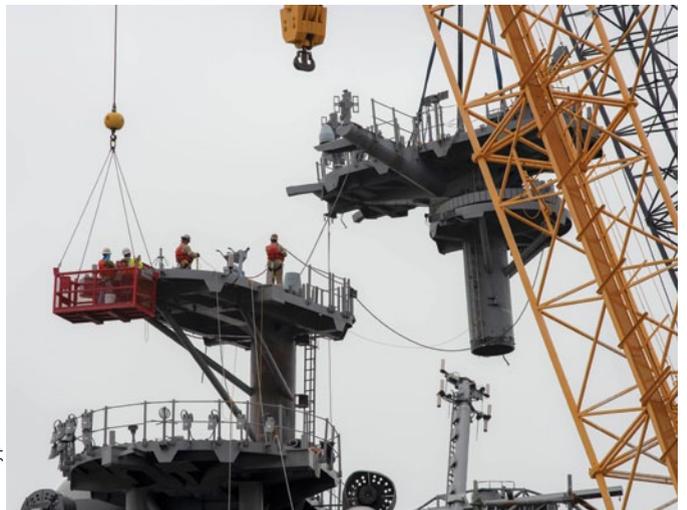
USS *Bonhomme Richard* (LHD 6) sustained extensive damage from an onboard fire that started while it was tied up in San Diego, and Navy officials say it is too soon to know if the amphibious assault ship will return to service.

Sixty-three people were injured fighting the fire, which was discovered July 12 at 0830 and burned for four days. The 40 Navy sailors and 23 civilian firefighters injured during the response underwent treatment for heat exhaustion and smoke inhalation, the Navy said. At least 21 were hospitalized.

The cause and origin of the fire have not been determined.

The tugboats *Jamie Renea* and *Jamie Ann* spray USS *Bonhomme Richard* as a Navy helicopter drops water on the amphibious assault ship July 13 in San Diego. At right, NAVSEA contractors work to remove the ship's mast on Aug. 4 after it was determined that the fire compromised its structural integrity.

U.S. Navy photos



Multiple investigations are underway to identify what happened aboard the 844-foot ship.

“The damage is extensive,” Chief of Naval Operations Adm. Mike Gilday said at a July 17

damage or fire damage.

A spokesman for Gilday did not respond to *Professional Mariner’s* request for a copy of the email obtained by other news agencies.

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“Damage assessments are ongoing,” Navy spokesman Lt. Ryan Slattery said. “Due to the size of the ship and extent of the damage, the initial assessments are expected to take several weeks to complete. The team’s findings will allow the Navy to make informed decisions regarding *Bonhomme Richard*’s future.”

Naval Sea Systems Command (NAVSEA) started work in early August to remove the ship’s fire-damaged aft mast. Slattery said the decision to remove the mast came “out of abundance of caution.” Crews performed the work using cranes on floating barges positioned alongside the ship.

USS Bonhomme Richard is one of eight Wasp-class amphibious assault ships built by Ingalls Shipbuilding in Pascagoula, Miss. The ships are smaller than aircraft carriers but can deploy assets through the air and water. The Navy commissioned *USS Bonhomme Richard* in 1998 and its normal crew size is about 1,000.

The ship was pierside at Naval Base San Diego undergoing routine maintenance and upgrades when the fire started. There were about 160 sailors on board at the time. Gilday said wind contributed to the fire’s spread throughout the ship. Flames traveled through elevator shafts and exhaust stacks into the superstructure. Multiple explosions shook the vessel.

Sailors with the ship’s company initially responded to fight the fire before naval base crews were called in. By evening, sailors and federal

firefighters were dispensing foam onto the flames, which were fueled by debris and materials such as office equipment and clothing in the ship’s internal spaces.

Temperatures inside the warship reached 1,200 degrees during the response. At least 400 firefighters took part in the effort.

“Damage assessments are ongoing. Due to the size of the ship and extent of the damage, the initial assessments are expected to take several weeks to complete. The team’s findings will allow the Navy to make informed decisions regarding *Bonhomme Richard*’s future.”

Lt. Ryan Slattery,
Navy spokesman

The ship developed a list during firefighting, although authorities described it as stable after the flames were extinguished.

Foss Maritime’s *Jamie Ann* and Centerline Logistics’ *Jamie Renea* cooled the ship’s hull for extended periods during the response. Helicopters conducted 1,500 water drops on the ship.

The Navy is conducting at least three separate investigations into the incident, Slattery said. One involves a Safety Investigation Board (SIB) focused on safety and prevention that also aims to identify the cause. Rear Adm. Kevin Byrne, commander of the Naval Undersea Warfare Center and Naval Surface Warfare Center, is leading the SIB.

Additionally, the Naval Criminal Investigative Service (NCIS) is working with the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) National Response Team to determine the circumstances surrounding the fire. NCIS requested the ATF response given its ability to provide “valuable explosives and fire investigative resources and expertise on complex, large-scale incidents,” Slattery said.

The Navy also will conduct a command investigation that will serve as a detailed post-mortem of the incident and the response, with a goal of preventing similar incidents in the future. That effort will begin as soon as officials can access the ship.

“Make no mistake. We will follow the facts of what happened here, we will be honest with ourselves, and we will get after it as a Navy,” Gilday said at the mid-July news conference.

There is no timeline for determining the future of *USS Bonhomme Richard*, or the completion of the investigations. Gilday expects to publicly share key findings once they are ready.

Casey Conley

Marquette blames captain, pilot after crane barge hits bridge

Kristin Alexis approached the west span of the Sunshine Bridge near St. James, La., pushing the crane barge *Mr. Ervin*. The pilot at the controls of the towboat assumed the crane standing 136 feet over the water would pass under with room to spare.

Moments later, at 0141 on Oct. 12, 2018, the crane's A-frame struck the highway bridge at mile 167.4 on the Lower Mississippi River. No one was injured and no pollution was reported, but the impact caused extensive structural damage to the bridge. It closed for seven weeks and required almost \$7 million in repairs.

National Transportation Safety Board (NTSB) investigators homed in on the pilot's decision to pass under the bridge's west span (west section) instead of the channel span with a higher vertical clearance. They identified flaws in the voyage plan,

the watch turnover briefing, and the crew's decision to get underway despite concerns about a seriously obstructed view.

The agency's report noted shortcomings with vessel operator Marquette Transportation's internal practices and safety management system (SMS). It also noted that National Oceanic and Atmospheric Administration (NOAA) charts used by the pilot on his approach did not provide accurate vertical clearance for the west span.

"Investigators believe that proper voyage planning and accurate overhead clearance calculations would have shown that the west span was not transitable with the crane barge," the NTSB said in its report.

Based on these findings, the NTSB called on NOAA to update bridge data and charts to include vertical clearance for all navigable bridge spans. It urged Marquette

Transportation to audit to make sure crews understand bridge transit and watch turnover procedures.

In a prepared statement, Marquette said it has updated its SMS and operating processes to clarify voyage planning requirements and the forms its crews must fill out. The company also said it has stepped up its training and internal assessments.

Marquette argued, however, that company policies already in place should have prevented the incident. The statement suggested that blame lies with the captain and pilot aboard the 2,880-hp *Kristin Alexis*.

"We share the NTSB's opinion that, given the concerns the captain and pilot had with the restricted visibility resulting from the placement of the crane's bucket on the barge, they should have exercised their stop work responsibility, as required by Marquette policy," the company said.



A photo taken from the NTSB report shows the towing configuration of *Kristin Alexis*, right, and the crane barge *Mr. Ervin*. The grab bucket cited in the report is at the port bow of the barge.

Kristin Alexis, built in 1978, operated under charter to Cooper Consolidated at the time. It typically performed fleet work and moved barges and crane barges between fleets in the Louisiana towns of Convent and Darrow. It was working at the Convent fleet at mile 161 with six crew when it got an order at about 2300 on Oct. 11 to bring the 191-foot *Mr. Ervin* upriver to the Darrow fleet at mile 175.

The 62-foot *Kristin Alexis* faced up to the barge on its port side, a position that offered the best view around the crane pedestal blocking the view to starboard. Even in this position, the towboat captain

noticed the crane's grab bucket obstructing the view ahead. Cooper Consolidated personnel denied his request to relocate the bucket.

Neither the captain nor the pilot knew the crane's exact air draft or the overhead clearance between the crane and Sunshine Bridge before getting underway at 2350, the report said. The pilot came to the wheelhouse on schedule for his 12-hour watch at midnight. The captain didn't leave the wheelhouse until 0040.

"During the watch handover, both the captain and the pilot stated that they only discussed the placement and removal of the grab buck-

et," the NTSB report said, noting the two normally discussed weather, river conditions, bridge transits and other relevant details. That morning's briefing, the report said, "was not typical because the captain was still 'upset' about the placement of the grab bucket."

The tow continued upriver at about 4 knots near the right descending bank. It remained on that side of the river as it approached the bridge. The pilot said that position afforded the best visibility. It also allowed for a starboard-to-starboard passage with the downbound towboat *Nedra K.* just south of the Sunshine Bridge. *Nedra K.* passed

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under the channel span, while *Kristin Alexis* lined up for the west span.

While en route, *Kristin Alexis*' pilot relied on the Rose Point electronic charting system (ECS) that used data from NOAA charts. The ECS showed a minimum clearance of 133 feet for both the channel and west spans of the Sunshine Bridge. This clearance is based on river levels at 36 feet, the historic high. The gauge at Donaldsonville, La., showed 18.37 feet on the night of the incident.

"Clearance data issued by the (U.S. Army) Corps of Engineers indicated a minimum vertical clearance of 135 feet for the main span and 111 feet at the west span," the

NTSB report said, noting the much lower clearance for the west span. The agency could not explain the height discrepancies between the two sources.

Kristin Alexis lined up to pass under the center of the 725-foot west span. The tow slid to port, toward the bank, as it approached the bridge, but the pilot remained confident the crane would safely pass under the span. That wasn't the case.

"About 0141 ... the top of the crane's A-frame struck the lowest horizontal support chord and lateral braces of the west span of the Sunshine Bridge," the report said.

Authorities later determined the bridge barely escaped a catastrophic failure. It was closed for 49 days, requiring long detours for residents living nearby. Delays continued after the span partially reopened. Repairs totaled \$8,500 for the crane and \$6.7 million for the bridge.

Marquette's SMS gives all employees authority to stop work at any time when they see something potentially unsafe. The pilot and captain both told investigators they gave no consideration to exercising that authority.

That part of the SMS was clear, but other policies were not. For instance, the document did not provide clear guidance on calculating overhead clearance, the NTSB said. The SMS also did not contain specific rules for passing under channel spans versus alternate spans. A company port captain later said taking the channel span was a "rule of thumb," but it was not codified anywhere.

"Had the company shared, in writing, (its) expectation about which span to use when transiting with a crane barge, perhaps the pilot would not have considered using the west span," the report said.

The checklist for the watch transfer indicated the captain and pilot discussed all items on the list when in fact they did not. The pilot did not contact the port captain upon completing the job safety briefing form after starting his watch. Such a call was required for tows with moderate risks, but the pilot believed it was required only with high-risk tows. Marquette officials pointed to this omission as further evidence that the incident stemmed from crew failures.

"We maintain our belief that if the captain or pilot of the vessel had contacted the Marquette port captain, as required in this situation, the incident would have been prevented," the company statement said.

Investigators cited crew confusion when completing critical paperwork before the vessel left the dock and after it got underway. The short voyage plan, for instance, contained a space for noting the air draft. But on the night of the accident the captain wrote 37 feet, which corresponded with *Kristin Alexis*, not *Mr. Ervin*.

It's not clear if either the captain or pilot involved in the incident still work for Marquette, which would not answer questions about their employment status. The NTSB did not identify either mariner in its report.

Casey Conley

NTSB recommendations

As a result of its investigation, the National Transportation Safety Board issued the following safety recommendations:

To Marquette Transportation:

- Develop a detailed voyage plan with specific information concerning/about all known risks, including calculated overhead clearance limitations for tows.
- Develop a detailed audit plan to verify that the bridge transit procedures and watch handovers are understood and effectively used by captains and pilots.

To the National Oceanic and Atmospheric Administration:

- Review and update bridge data and charts to include vertical clearance information for all navigable bridge spans.

NTSB cites lack of ‘decision point’ in Atchafalaya bridge strike

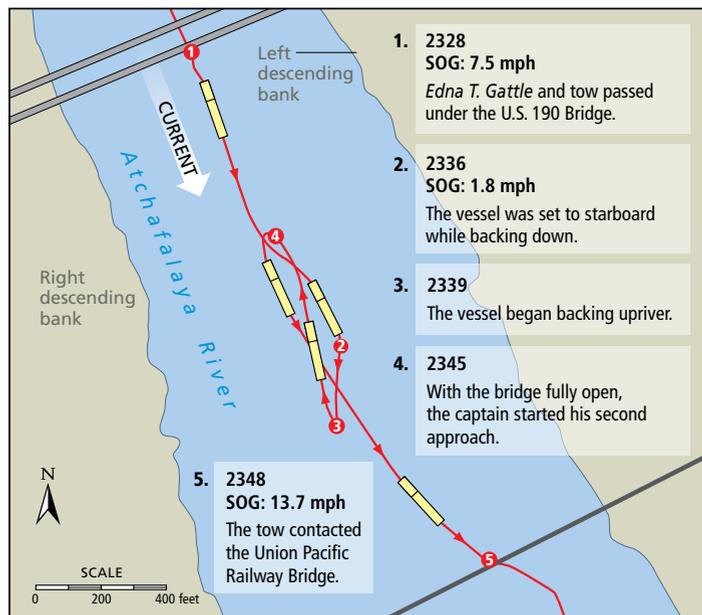
Edna T. Gattle and the spud barge *Terral 2* approached the Union Pacific Railway Bridge over the Atchafalaya River when the towboat’s captain requested the swing bridge open. Twenty-one minutes later, as the tow came within a half mile of the span, it was still closed.

The captain backed down and moved several hundred feet upriver against a current that set the tow to starboard. The bridge opened, and he made a new approach from a position closer to the right bank than his first attempt.

The captain lost control of the tow and the 200-foot *Terral 2* hit the bridge in several places at about 2348 on April 24, 2019. The bridge, at mile 41.5 near Krotz Springs, La., closed to rail traffic for three days and required \$500,000 in repairs. No one was injured and no pollution was reported.

The National Transportation Safety Board (NTSB) acknowledged the bridge took longer than average to open. But investigators also determined the captain should have established a “decision point” to slow down or stop if the bridge remained closed.

“Since (vessel operator Terral River Service) did not include decision points in their operations procedures for the Union Pacific Railway Bridge transit, the captain did not have a set location to stop and reassess the approach to the bridge once he realized that the bridge would not be open in time for his transit as initially planned,”



The captain on *Edna T. Gattle* backed down when he had to wait for the Union Pacific Railway Bridge to open near Krotz Springs, La. His second approach was closer to the right bank and at a much steeper angle, leading to impact with the span.

Tom Galtner photo/Pat Rossi illustration

the NTSB said in its report. “Had the captain slowed or stopped earlier at a planned and specified decision point before the bridge, he would have had more time and distance to make his second approach correctly.”

Terral River Service, based in Lake Providence, La., did not respond to an inquiry about the NTSB findings.

Edna T. Gattle, a 3,000-hp retracting pilothouse towboat, picked up *Terral 2* in Simmesport, La., at 1920 for a transit to Amelia, La. The spud barge had an excavator on deck, and its vertical clearance was 45 feet. The Union Pacific bridge had less than 26 feet of clearance.

The captain contacted the bridge tender at 2307 to request the span

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to open. He tried again a few minutes later when the tow was 3 miles from the bridge making 15 mph over land. There was a delay in the span opening while the tender awaited approval from a supervisor.

The tow reached the U.S. 190 highway bridge, about half a mile from the railroad bridge, at 2328. The rail bridge was still closed. The captain slowed down to about 7.5 mph and again contacted the bridge tender, who told him to stand by.

The captain backed the tow when it became clear the bridge would not open in time. The current near the bridge was moving close to 5 mph.

The current set the tow to starboard, and the captain began his second approach roughly 150 feet closer to the right bank than the aborted first attempt. As a result, the NTSB determined, the second approach starting at about 2345 came at a much steeper angle.

Terral 2 struck the bridge three minutes later. Its starboard quarter first hit a bridge pier before bouncing to port and hitting the swing span pedestal. The excavator also hit the swing span.

“The tow, propelled by current, forward momentum and a large eddy on the downriver side of the pedestal, forced the bridge to move in a counterclockwise motion,

almost back to its closed position,” the report said.

Terral 2 took on water from several fractures and holes caused by the impact, although the crew used pumps to address the flooding. The barge required close to \$27,000 in repairs. The bridge’s locking mechanism was damaged, preventing the span from closing.

The bridge is in an area known for swift, challenging currents, and it has been hit several times over the

The bridge is in an area known for swift, challenging currents, and it has been hit several times over the years — including by an *Edna T. Gattle* tow in 2014.

years — including by an *Edna T. Gattle* tow in 2014. Barges pushed by *Marguerite L. Terral*, a sister vessel to *Edna T. Gattle*, hit the span in 2017. The NTSB determined the bridge tender in that case was distracted and

failed to open the bridge in a timely manner.

In the April 2019 case involving *Edna T. Gattle*, the bridge took 27 minutes to open. The previous month’s average time to open the span was about 18 minutes. The NTSB determined 27 minutes was not particularly unusual.

“Though the bridge was slower to open than average,” the NTSB concluded, “the captain and company should have anticipated such contingencies and planned mitigating actions, especially given the higher-than-normal river current.”

Casey Conley



The use of drones for vessel inspections is gaining acceptance across the industry, with shipowners and operators realizing the benefits of risk abatement in confined spaces and potential overall cost savings.

AdobeStock photo

Faster, safer, cheaper: Drones taking flight for ship inspections

by Alan R. Earls

Drones are everywhere these days, from far-flung battlefields to family events. Where they haven't gone, until recently, is into the confined hull spaces of ships. There, using tools that haven't changed much in the past century, skilled professionals have been putting themselves at risk — sometimes amid toxic fumes or inadequate oxygen — to seek signs of metal fatigue, corrosion, or anything else that might endanger the safety or serviceability of a vessel.

But that's changing rapidly. Drones have finally invaded these inner spaces, helped along by advanced technologies that depend

less on the vagaries of GPS, to pursue the work of inspection with a growing degree of autonomy. And the practice is quickly gaining acceptance.

Within the International Association of Classification Societies, London-based Lloyd's Register has led the development of regulations to permit the use of remote inspection techniques (RIT), according to Richard Beckett, global head of technology for Lloyd's. The initiative has included updates to survey guidance and the introduction of service supplier requirements for companies using these techniques to assess the structure of ships and mobile off-shore units.

Following questions from the shipping industry and the surveyor community about when it is suitable to use RIT equipment, Lloyd's issued a standard in 2018 — considered an industry first — for assessing the capability of these systems. The goal was to help RIT vendors and service suppliers evaluate their equipment against the criteria laid out in the standard.

"This has proved a very useful framework," Beckett said. "We have been working with drone operators for many years, helping us utilize available technology to prevent unnecessary downtime, while also ensuring safe and compliant practice."

Recently, Lloyd's worked

with the Montreal-based cargo operator CSL when one of its self-unloading bulk carriers was due for a close-up inspection as part of its intermediate survey. The ship wasn't due to go to dry dock until 2021, but surveyors needed access to the cargo holds. The team conducted a close-up assessment using a Lloyd's-approved drone operator, taking advantage of the drone's ability to examine hard-to-reach areas of the vessel while still retaining the arm's-length requirement of the intermediate survey.

"The drone was able to capture high-quality imagery to complete the visual inspection without the need to set foot off the deck,"

The Legacy One drone from Interactive Aerial, shown inspecting a ballast tank, delivers data via the company's proprietary software to quantify and track corrosion and pitting growth over time.



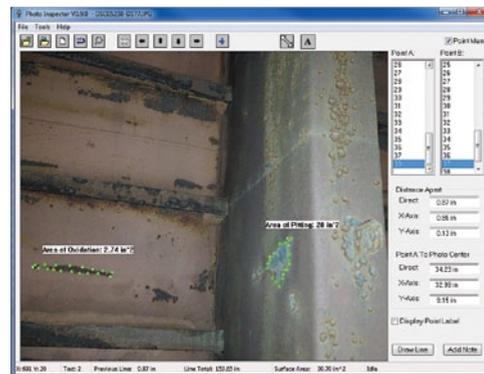
Courtesy Interactive Aerial

vehicles (UAVs), remotely operated underwater vehicles (ROVs), and robotic crawlers.

Not surprisingly, a voice from the world of drone makers is very enthusiastic about the technology's potential for remote vessel inspections and its successes to date. Christian Smith, president of Interactive Aerial of Traverse City, Mich., said his team is currently focused on building robotic solutions to better address internal infrastructure inspections, both terrestrial and maritime. The company's products include the Legacy One drone, Zenith robotic camera and proprietary Photo Measurement software.

some manufacturers have simply tried to make their "inside" drones tougher and more tolerant of impacts with walls, columns and cables. Interactive Aerial took the opposite approach, equipping its drones with a spinning light detection and ranging (lidar) system so they can navigate accurately and avoid objects reliably. While the company can sell its drones to customers, typically it is hired to perform inspections since it has developed considerable experience in the field.

To date, most of Interactive Aerial's assignments have been on land, but the company has also inspected dry bulk carriers on the



Beckett said. "This drone-assisted survey avoided the need for expensive and time-consuming scaffolding and staging, so CSL's self-unloader was back in operation in record time."

In 2019, the American Bureau of Shipping (ABS), a Houston-based classification society, published "Guidance Notes on the Use of Remote Inspection Technologies," which similarly details best practices for drone use on class surveys and non-class inspections. The guidance covers pilot-operated unmanned aerial

Smith said Traverse City has the distinction of being the site of the first unmanned drone flight in the United States (a Navy program during World War II). It is also home to Great Lakes Maritime Academy, where three of Interactive Aerial's co-founders took advantage of the school's ROV-oriented engineering program, one of the few in the U.S.

Smith said drones for outdoor use have attracted most of the attention, leaving room for his company to take a leading role in "GPS-denied areas." He said

Great Lakes and floating oil rigs in the Gulf of Mexico.

"Typically, if drones can be used as an alternative to humans, it is safer, faster and saves money," Smith said.

According to James Forsdyke, head of product management at Lloyd's, one of the main advantages of using drones or other remote technology for inspections is that it can provide "high fidelity assurance." Decision makers can be more confident that they are seeing an accurate representation of a situation, and they can access

this information more easily. The use of drones also can reduce the extensive preparation and execution time often needed with traditional inspection programs, he said.

Forsdyke said there is a benefit for class societies and clients alike because the technology allows quick responses for smaller, less critical tasks, helping vessel owners and operators reduce unnecessary downtime and resume operations in a safe and timely manner. From a class perspective, a surveyor's skill is rooted in analyzing the collected data, and that's where their time is better spent — not undertaking an on-site inspection.

“Remote surveying techniques can facilitate a more efficient collection of data while allowing surveyors to focus their energies on the interpretation of the evidence,” he said.

Although drones can provide a number of advantages when it comes to ship inspections, they are not always the answer. For example, it is not always possible to have sufficient bandwidth to transmit livestreaming data. The complex metal structures of a hull also can constitute a Faraday cage — in other words, a very effective signal disruption. The suitability of drones must be assessed on a case-by-case basis, Forsdyke said,

ensuring that there is an actual equivalence with normal survey techniques.

While many in the shipping industry had already begun to accept the use of drones for surveys and inspections before COVID-19, the pandemic has accelerated the process, according to Beckett. In addition to making use of standard forms of communication, such as email and mobile phones, “we are actively engaging in the use of remote connectivity, remote data feeds and live video streaming to support our clients at this challenging time, and to assist them with keeping their fleet and other assets in service,” he said. •

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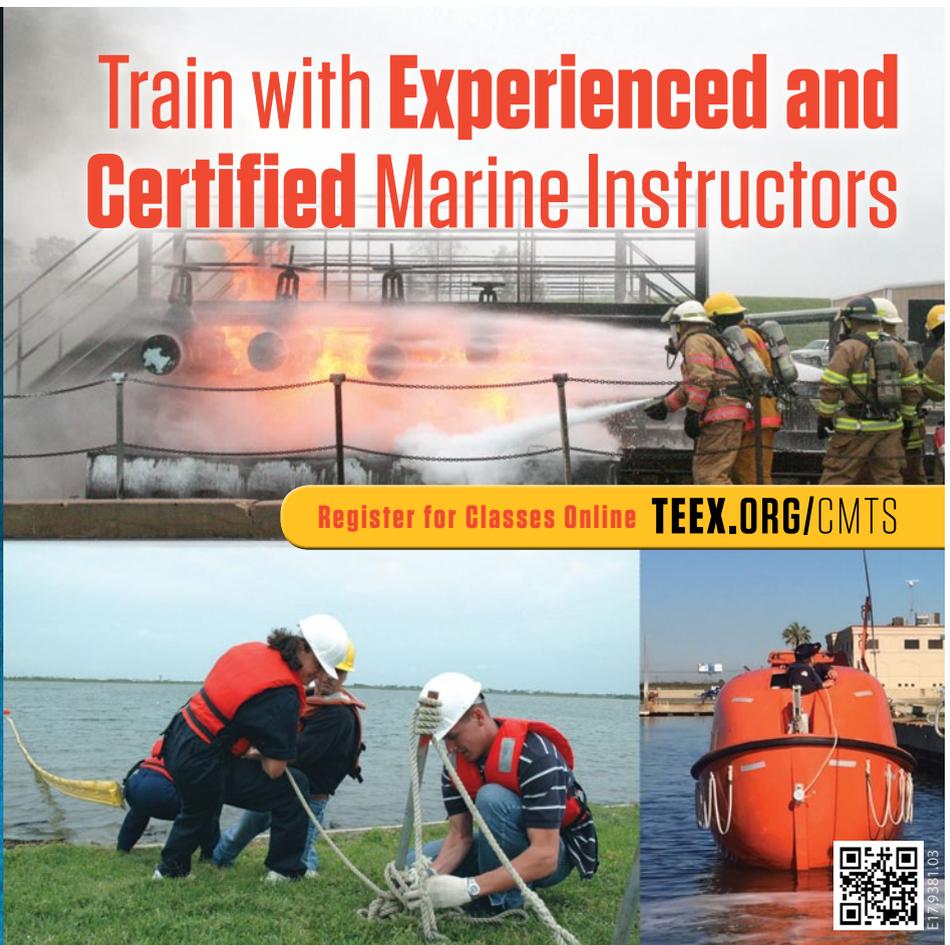
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World War II tow down the Hudson takes New York by storm

Story and photos
by Will Van Dorp

As the sky brightens over Lower Manhattan, *USS Slater* deck hand Ed Pattison points in the direction of Caddell Dry Dock and Repair, the destination for the World War II-era destroyer escort.

Stone scows don't draw much attention, and the principal activity of the New York State (NYS) Marine Highway Transportation Co. is moving stone. The operator's tugboats travel up and down the Hudson River with regularity, pushing one or more stone scows, loaded or light, between the quarries and crushers upriver and the countless building projects in metropolitan New York City.

But on July 5, *Sarah D.*

and *Nathan G.* attracted multitudes on a southbound trip. It called to mind the "crowds of water-gazers" mentioned in the first few paragraphs of *Moby Dick*. Granted, it was a sunny, spectacular Sunday, and hundreds of miles of river-bank allowed COVID-weary folks to congregate along the waterway and on diverse boats while still respecting social distancing guidelines.

What attracted the crowds was the tow: *USS Slater*, a World War II-era

destroyer escort launched in 1944. In the last months of the war, it accompanied five convoys across the North Atlantic, armed with a variety of U-boat destruction tools — now inert but appearing ready for use on the ship.

A museum attraction vessel in Albany since 1997, the 306-foot *Slater* has a functional generator, but its main engines — though cosmetically restored — do not run. Therefore, tugboats are essential for it to move.



In the Upper Bay of New York City, left, the tow stems the current while waiting for its appointment at Caddell Dry Dock. Below, *Nathan G.* rides on *Slater's* stern port quarter as the vessels pass wooded riverbanks south of Albany.

From 1951 until 1991, *Slater* sailed for the Greek navy as *Aetos (Eagle)*. In lieu of scrapping it as planned in 1991, the Greeks donated the vessel to the Destroyer Escort Sailors Association, which spearheaded fundraising to have it towed from Crete to New York in 1993. *Gephard*, a 262-foot Russian tug, was contracted for the trans-Atlantic tow. After passing Gibraltar on a towline, the expectation was that *Slater* had only a 50 percent chance to survive the crossing.

Nearly three decades later, the vessel was headed for a shipyard overhaul that would include hull maintenance, zebra mussel removal, and wiring and restoration work on its 90-foot mast. The project was scheduled at Caddell Dry Dock and Repair, a

little over 130 nautical miles downriver from Albany in Staten Island.

Since December, *Slater* volunteers had worked countless hours to prepare for this shipyard run, par-

tially funded by grants. Addressing the 42-item to-do list coalesced the group through the winter, with the transit downriver scheduled for March. COVID-19 changed everything, and the shipyard visit was postponed until October. In early June, however, Caddell contacted the *Slater* team about an unexpected immediate opening at one of its dry docks. NYS Marine Highway, whose base in Troy is only a few miles from the *Slater* dock, could have tugboats ready for the tow in 48 hours. The timing worked out perfectly: *Sarah D.* would deliver empty stone scows upriver, and then *Slater* would be its backhaul.

Right down to the last scorching afternoon, vol-





unteers rallied to complete every item on their checklist, adding a refrigerator, gas grill and supplies for the 15-person crew that would live on the vessel in the shipyard. One of the volunteers aboard, a former restaurateur, was designated as cook. Breakfast would come out of the galley, and all else from the grill.

Sarah D. arrived at dawn on July 5. As the crew readied the lines, Capt. John Herman verified the best towing points. An hour later, the tug was made up to the starboard stern of *Slater*. *Nathan G.* arrived and delivered the Upper Hudson pilot Paul Chevalier, who would stay aboard until he handed off to a Lower Hudson pilot about 50 nautical miles downriver.

***Nathan G.*, right, assists *Sarah D.* in easing the destroyer escort to its designated berth at Caddell.**

To keep boaters from getting too close, a spontaneous escort of public safety patrol boats joined the tow.

Canvas had been attached to the fendering on the tugs to protect the World War II dazzle paint on *Slater's* hull.

Once a mobile crane on the dock removed the gangway connecting *Slater* to the museum space, NYS Marine Highway crew coordinated the line drop. The tugs rotated the warship toward the Rensselaer side of the Hudson, then pointed it south. The tow soon moved past the Port of Albany for the start of a roughly 24-hour voyage. Several miles downriver, *Nathan G.* made fast on *Slater's* stern port quarter.

“A side tow arrangement allows greater control. Vessels like *Slater* are not designed to be towed; the ship would sway one direction and then the

other,” said Chris Deeley, operations manager at NYS Marine Highway. For the tow from Crete to New York in 1993, special towing points had to be welded to the ship.

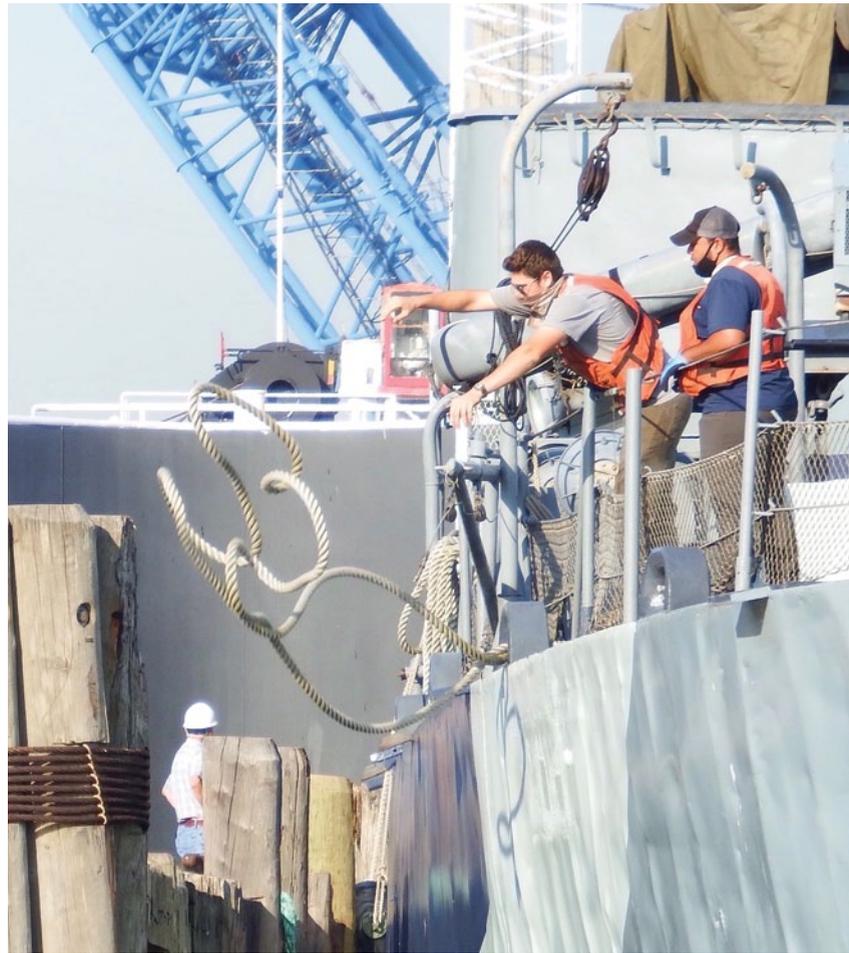
Sarah D., with greater horsepower, size and draft than *Nathan G.*, powered the tow from starboard and followed the right-hand side of the channel. *Nathan G.* aided, providing *Sarah D.'s* captain with visibility along the port side. Although its engines were running and in gear, *Nathan G.'s* rudder stayed fixed so that it would not interfere with *Sarah D.'s* steering. If needed in turns, *Nathan G.* could assist.

The number of boats on the river — either there to greet the “spectacular warship,” as a Poughkeepsie

radio station called it, or out for other types of recreation — increased the potential for problems. Recreational boaters don't always understand the risks in navigating near a commercial tow. To keep overexuberant boaters from getting too close, a spontaneous escort of public safety patrol boats joined the tow.

"It was unplanned but really helpful," said Herman, a Massachusetts Maritime Academy graduate who has been with NYS Marine Highway full time since 2016. "It enhanced our margin of safety. More than a dozen, maybe two dozen different jurisdictions rotated in and out along the way. When they needed to break off and return to their area upriver, they'd call in

Upon arrival at Caddell, right, deck hand Elliot Coiffi lands the dock lines on *Slater* as engineer Edison Williams stands by. With the Hudson gleaming behind him, Sarah D. Capt. John Herman, below, sizes up the towing points prior to moving the ship off the dock in Albany.



and announce that, wishing us well."

Some towns stationed fire trucks along the river, their ladders and towers festooned with flags. "I felt very proud," Herman said. "Rounding the bend at West Point especially, with all the crowds, was amazing. Even after dark, people flashed their car headlights, messages in Morse code maybe. I've never seen anything like it."

In the wee hours under a full moon, a Sandy Hook pilot replaced the Lower Hudson pilot at Yonkers and coordinated with vessel traffic service as the

tow closed in on its 0730 appointment at Caddell.

By 0500, the tow had passed the Statue of Liberty. As the moon descended over Staten Island and the sun rose over Brooklyn, the water was smooth and the air was quiet, a stark contrast to the crowds of the previous day.

The 0730 arrival at Caddell coincided with the height of flood tide current there, but the docking was perfect. "We do this all the time," Herman said. Along the river *Slater* was unique, but when it came to docking, the technique was the same as for a stone scow.

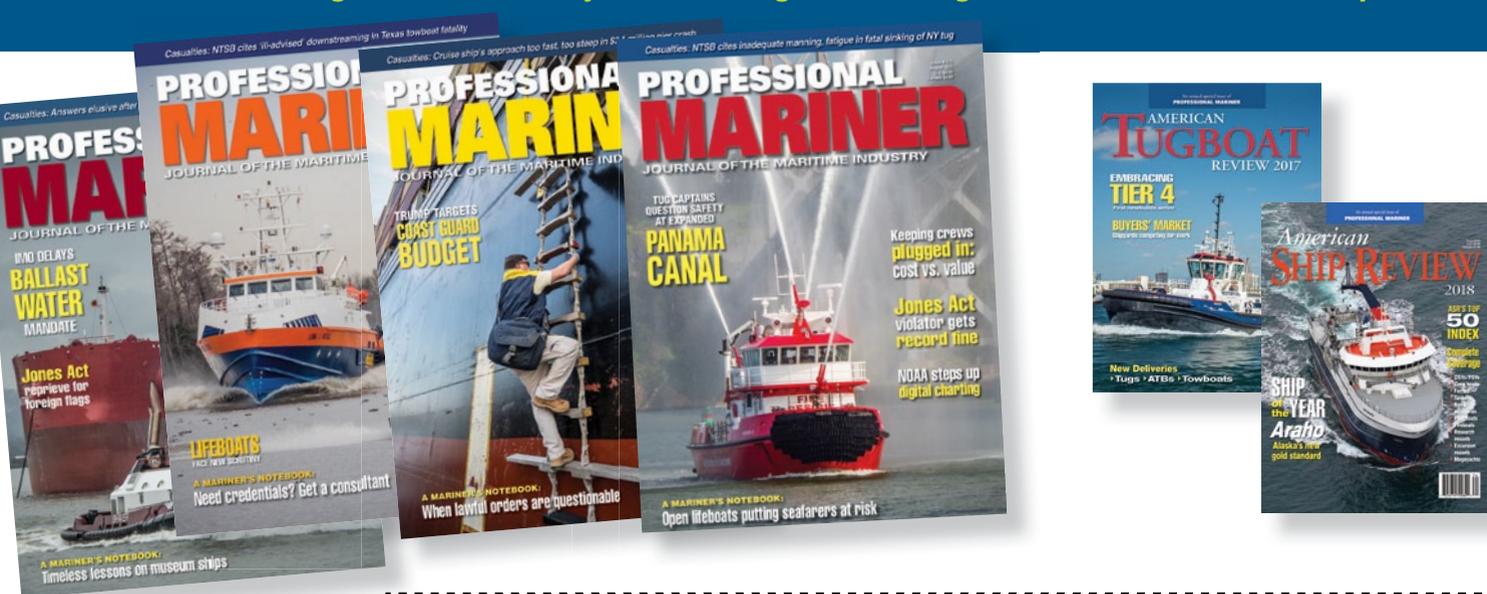
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breakfast. Knowing my watch schedule, my wife called and asked, “Are you up by Anacortes?” I replied that we were. “I thought so,” she said. “Sherry texted me that she heard on her marine radio that your ship was up her way, and when she looked out her kitchen window, there you were.” It was amazing to me that within a few short hours, the word of our being in Burrows Bay had already spread at least 60 miles from where the ship was sighted.

Beyond the traditional binoculars, spotting scopes and various radios, when it comes to monitoring ships in port, the use of more advanced computerized technology has really upped the game. Our island friends, Jim and Karen, are passionate about protecting our local beaches from oil spills so they regularly monitor ship movements by computer using automatic identification system (AIS) readouts from one of the many tracking websites. They recently invited my wife and me over to their beautiful-view home overlooking the traffic lanes in and

out of Seattle. We were all sitting on their deck when an inbound cargo ship went by. Jim rushed into the house and came back with his laptop, pulled up the tracking website MarineTraffic, and a minute later announced,

These citizens have a vested interest in making sure that we follow all applicable rules, and as it has been shown time and time again, they will not hesitate to report us when we slip up and make a mistake.

“That’s the *North Star*, a ro-ro/ container carrier registered in the United States and heading to Tacoma. It’s not doing anything weird, like getting too close to shore or acting erratically.” I said, “Wow, Jim, do you always keep such close tabs on the ships out there?” He replied, “If something happens, we want to be on it so

we’ll be able to report the details to the Coast Guard right away.”

With news reports proliferating about the effect of ship operations on air and water quality — and their impact on climate change — it should come as no surprise that now more than ever, residents of port cities throughout the United States are closely monitoring and tracking commercial ships working in their localities. These citizens have a vested interest in making sure that we follow all applicable rules, and as it has been shown time and time again, they will not hesitate to report us when we slip up and make a mistake. So the next time you are working on a vessel and feel paranoid because you think you’re being watched, don’t worry — you really are.

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 captswweeney@professionalmariner.com.

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A Mariner's Notebook

by Capt. Kelly Sweeney

Technology helps shoreside eyes monitor every maritime move

During the summer between our sophomore and junior years at the California Maritime Academy, we were required to do an

internship at a maritime company or organization to get a glimpse of how things worked shoreside.

Being from

Washington state, I was assigned to the Port of Seattle, and under the tutelage of Mr. Fox learned a lot about the port's business and operations. One day we were at Terminal 90/91, which was in front of — and in plain view of — an area of very expensive homes. Pointing up at them, he told me that many of the doctors, lawyers and local “movers and shakers” who lived there were not enthused about the unglamorous cargo ships working within sight

of their houses — and made it their business to know the environmental and operational rules the terminal had to follow. “They watch us like hawks,” Mr. Fox continued, “and make official complaints about the noise or air pollution coming from the terminal all the time. They have been an ongoing problem.”

Until that sunny Seattle summer day, I had never given any thought to the idea that people were so closely monitoring commercial ships working in port. In fact, during my time at school I'd always viewed a merchant ship as its own entity, crewed by professional mariners who did the work of the vessel largely outside the realm of anything ashore. After beginning my seagoing career, however, I found out that Mr. Fox was right about the scrutiny mariners face from the general public.

Working on a chem-

ical tanker berthed at Los Angeles, I had just woken up and was walking down the gangway to call my wife from the phone booth on the pier, having just enough time for a good conversation before my watch started. Waiting at the base of the gangway was the terminal's dock operator, looking stressed and gloomy. “Good afternoon, Steve,” I said. “What's going on?” Agitatedly, he answered, “Someone in one of those expensive-view homes overlooking the terminal dropped a dime on us because your ship was spewing out too much black stack smoke. We're probably going to get fined because of it.” I heard later that they had.

Sometimes, those monitoring ships in port go beyond just keeping an eye on us — something I found out once while working on an oceanographic vessel. The science party we had on board was studying

the amount of certain chemicals in the water column of the Salish Sea (aka Puget Sound) by collecting a series of samples. Coming up for watch one morning at 0345, I saw that we were in Burrows Bay, at the northern end of our working area. The second mate told me, “The chief scientist wants us to stand by here until 0800, and then head out to the next testing site a few miles away.”

Up on a hill above the bay was the huge 500-home Skyline housing development, where some friends of ours lived. I looked out of the wheelhouse windows during watch, wondering how many of the people in those 500 houses were checking out our ship. It didn't take long before I got the answer. Relieved by the third mate at 0745, I headed down to my stateroom to wash up before getting some

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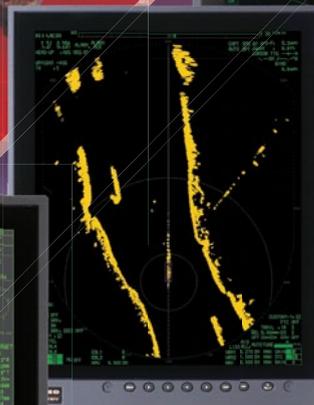
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