

Casualties: American captain, crew honored for high-seas rescue of Sincerity Ace

PROFESSIONAL MARINER

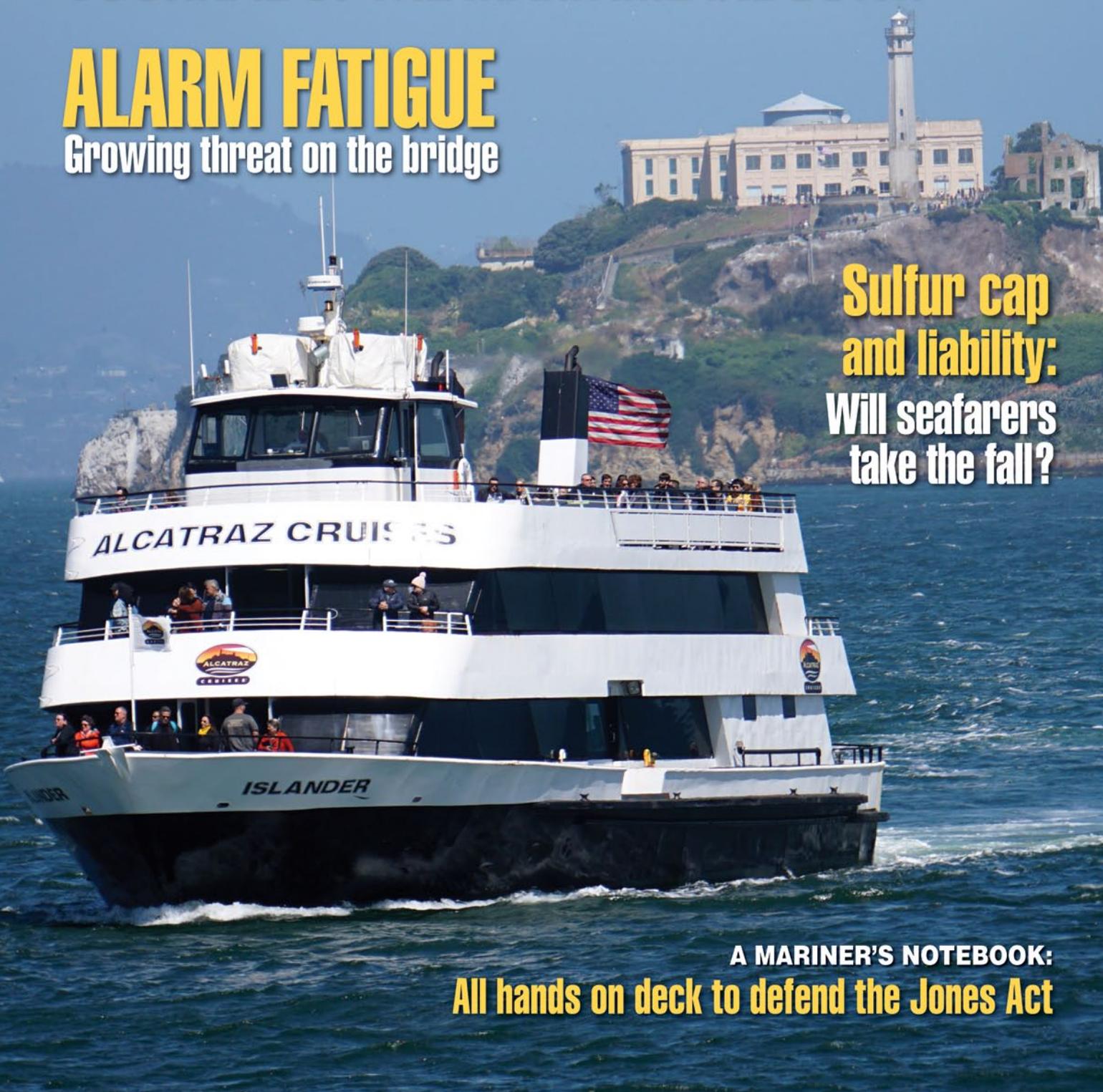
Issue #242
February 2020
U.S. \$4.99
Canada \$4.99

JOURNAL OF THE MARITIME INDUSTRY

ALARM FATIGUE

Growing threat on the bridge

Sulfur cap and liability: Will seafarers take the fall?



A MARINER'S NOTEBOOK:
All hands on deck to defend the Jones Act

U.S. COAST GUARD APPROVED INFLATABLE WORK VEST



Tri-fold design for easy repacking

Automatic inflator

Minimum 35 lbs. of buoyancy

31.5 sq. in. reflective tape

Puncture-resistant shell wipes clean

Fall protection harness opening

Part#: 300003509

1471 MANUAL/AUTOMATIC INFLATABLE WORK VEST

- US Coast Guard approved
- Approved for use by individuals 16 years and older, weighing 90 lbs. or more
- Adult Universal 30-52 in chest
- Easy to re-arm with Stearns® Re-arming Kit #0947



MADE IN
THE USA

Stearns® is a trusted name in safety and survival products. For more than 60 years, Stearns® products have held up under the most demanding conditions. It's about Technology. It's about Quality. It's about Leadership. It's about Life.

USCG approved as a Work Vest (only when worn) under 46 CFR 160.053 for use on all inspected and un-inspected commercial vessels of any length and USCG approved for use in lieu of a Type II PFD under 46 CFR 160.064 on un-inspected commercial vessels less than 40 feet in length not carrying passengers for hire



www.StearnsFlotation.com

Contents

Professional Mariner February 2020

Towing

15 Ice-fighting crew on Great Lakes ATB keeps cargo flowing

BY WILL VAN DORP



Correspondence

38 Emergency management: Have you planned for your next crisis?

BY SEAN MURPHY AND ADAM BOESEN



Trends & Currents

42 Rise of BNWAS adds to concerns over alarm fatigue

BY ALAN R. EARLS

A Mariner's Notebook

48 To save the Jones Act, know your enemies – and fight back

BY CAPT. KELLY SWEENEY



Industry Signals

4 *Conception* fire spurs nationwide Coast Guard inspection effort

6 Hurricane's impact on Eastern puts OPC contract back in play

8 NOAA plans to 'sunset' traditional paper charts by 2025

10 Seafarers fearful of bearing brunt of sulfur cap enforcement

12 New SOLAS amendments take effect to improve lifeboat safety

14 Coast Guard proposes first decrease in Lakes pilot rates in six years



PROFESSIONAL MARINER

JOURNAL OF THE MARITIME INDUSTRY

Subscription Department
Toll-free 866-918-6972
professionalmariner@pcspublink.com

Editorial

editors@professionalmariner.com

Editor Rich Miller

Associate Editor Casey Conley

Copy Editor Kate Murray

Art Director Kim Goulet Norton

Gulf Coast Photographer/

Correspondent Brian Gauvin

West Coast Photographer/

Correspondent Alan Haig-Brown

Columnist Capt. Kelly Sweeney

Advertising

advertising@professionalmariner.com

West Coast/Canadian/

International Susan W. Hadlock
207-838-0401

East Coast Charlie Humphries
207-939-1929

Gulf/Midwest Arthur Auger
207-577-3257

Publisher Alex Agnew
207-450-5363

Circulation/Events

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

Business

Business Office Lee Auchincloss

Customer Service: 1-866-918-6972
All Other Departments: 207-772-2466
www.professionalmariner.com

PROFESSIONAL MARINER
(ISSN 1066-2774)

This magazine is printed in the U.S.

Professional Mariner is published in February, March, April, May, June, August, September, October and December, with an annual special issue of *American Tugboat Review* in July and an annual special issue of *American Ship Review* in November for \$29.95 per year by Navigator Publishing LLC, 58 Fore St., Portland, ME 04101.

Periodicals postage paid at Portland, Maine, and additional mailing offices. Postmaster: Please send address changes to *Professional Mariner*, P.O. Box 461510, Escondido, CA 92046.

Copyright © 2019 by Navigator Publishing LLC. All rights reserved. No part of this publication may be reproduced in any way without written permission from the publisher. Multiple copying of the contents without permission is illegal. Call 207-822-4350 x219 for permission.

Subscription rate is \$29.95 for one year (nine issues) in the U.S. and its possessions. Canadian subscription rate is \$44.95 U.S. funds. Other foreign service is \$49.95 U.S. funds. Overseas airmail is \$94.95 U.S. funds. Multi-year discounts are available, call 866-918-6972 for details.

Distribution: Newsstand distribution, domestically and internationally: Coast to Coast Newsstand Services LTD., 5230 Finch Ave. East, Suite 1, Toronto, ON M1S 4Z9. Phone (416) 754-3900; fax (416) 754-4900.

Contributions: We solicit manuscripts, drawings and photographs. Please address materials to Editor, *Professional Mariner*, P.O. Box 569, Portland, Maine 04112-0569. Unfortunately, we cannot guarantee the safe handling of all contributed materials.

PROFESSIONAL MARINER

JOURNAL OF THE MARITIME INDUSTRY

What's your next step?

Professional Mariner provides all you need to know to stay informed about regulations, casualties, legislation, and technologies to take your career to the next level.



Subscribe Today www.professionalmariner.com/Subscribe/

Contents

Professional Mariner February 2020



Maritime Casualties

- 26 American captain, crew honored for valor in *Sincerity Ace* rescue
- 28 Casualty Briefs
- 31 Bulker deck hand dies after fall from Indiana steel mill dock
- 32 Towboat fire leads to barge breakaway, captain's dismissal
- 35 NTSB: Master impaired when cruise ship hit mooring dolphins
- 37 ATB hits OSV that had turned broadside in Port Arthur channel

Vessels at Work

- 24 Alabama River ferry reborn with electric propulsion

BY BRIAN GAUVIN

ON THE COVER

Islander, a conventional diesel-powered tour boat sailing for Alcatraz Cruises, heads across San Francisco Bay after taking tourists to the former federal prison in the background. The company's fleet includes a pair of refitted diesel-electric hybrids, *Alcatraz Flyer* and *Alcatraz Clipper*, that exemplify the push toward cleaner propulsion in the Bay Area. See story, page 20. Photo by Casey Conley



- 20 Doing quiet time: Hybrids keep tourists flowing to 'The Rock'

BY CASEY CONLEY



Signals

***Conception* fire spurs nationwide Coast Guard inspection effort**

Following the fatal fire on the dive boat *Conception*, the U.S. Coast Guard launched a nationwide inspection campaign last fall focused on safety and regulatory compliance aboard overnight passenger vessels.

The service also distributed a marine safety information bulletin (MSIB) highlighting key safety themes such as clear escape routes, crew readiness during emergen-

cies, and hazards caused by too many personal electronic devices recharging at once.

Lt. Amy Midgett, a Coast Guard spokeswoman, said the “fleetwide safety campaign” occurred across all captain of the port zones. She acknowledged the effort was spurred by the Sept. 2 fire aboard *Conception* that claimed 34 lives.

“In the days immediately fol-

lowing the (fire), the Coast Guard launched a targeted inspection campaign on all small passenger vessels in the fleet to identify any immediate concerns and trends in the industry,” Midgett said in mid-November.

Although she described overall education as a primary objective, inspectors had the authority to identify deficiencies and take “other necessary enforcement



NTSB investigator Jennifer Homendy and Coast Guard Capt. Jason Neubauer tour the berthing area of *Vision*, a sister vessel to *Conception*, on Sept. 4 in Santa Barbara, Calif. Thirty-four people died on *Conception* two days earlier when a fire trapped them as they slept below the main deck.

NTSB photo

action” based on issues they noticed while on board. Results from the nationwide inspection effort were still being tabulated, Midgett said.

Multiple federal agencies are investigating the *Conception* fire, which started at about 0300 while the vessel was anchored off California’s Santa Cruz Island. Crew told authorities they awoke to flames engulfing the ship’s galley on the main level. One deck below, 33 passengers and one crewmember slept. All 34 perished in the fire, while the five crew sleeping above the galley survived.

The National Transportation Safety Board (NTSB), Coast Guard and U.S. Justice Department are conducting separate investigations into the incident, Midgett said. The cause of the fire likely won’t be made public for a year or more, she said, adding that it was “too soon to speculate” whether any regulations might change as a result of the fire.

Kyle McAvoy, a former Coast Guard casualty investigator, predicted the service will recommend changes. McAvoy, who retired as captain and now works for Robson Forensic of Lancaster, Pa., expects the service will look at standards for safe passenger egress and hull materials that allowed the fire to spread quickly.

“One of the primary reasons to do an investigation is to figure out how to stop something from happening again,” said McAvoy, who is not connected to any of the *Conception* inquiries. “I foresee

a critical look at all the regulations and policies in place, and a very high probability that some items will be proposed to change.”

Comments made by NTSB investigators shortly after the incident also offered clues of potential changes. The agency noted that *Conception* lacked a hard-wired fire alarm system and fixed fire-suppression system in the passenger spaces. Neither system was required.

Conception was built before regulatory changes in 1996 for small passenger vessels, and therefore it was not required to meet the more stringent Subchapter T standards.

“*Conception* was inspected and certificated by the Coast Guard as an existing small passenger vessel prior to the incident, and the process is informally referred to as ‘grandfathering’ in the maritime industry,” Midgett said.

During a tour of *Conception*’s sister vessel *Vision* after the fire, NTSB board member Jennifer Homendy expressed concern about the compartment where the victims slept in bunk beds stacked two and three high. The space had two exits, both of which led to the galley that was engulfed in flames. One of the exits required passengers to crawl over a bunk bed.

The Coast Guard has not specified any regulatory shortcomings aboard the 75-foot *Conception*. However, the inspection campaign that followed the tragedy re-emphasized its enforcement of existing regulations.

Inspectors came aboard the

39-passenger tall ship *Harvey Gamage* in Portland, Maine, in September as part of the nationwide compliance campaign. Capt. Richard Bailey, skipper of the ship certified under Subchapter T, said the inspectors called ahead of time to schedule the visit. He described the inspectors as “collaborative ... and non-confrontational.”

“They looked at egresses from spaces, they looked at flammable possibilities — things like paint storage (and) phone charging,” he said.

Based on conversations with the inspectors, Bailey suggested the service “would like to reduce the number of overnight bunks aboard boats,” particularly double bunks catering to couples traveling together. Such accommodations, which *Conception* had, can trap one person between a sleeping partner and the bulkhead.

“On (*Harvey Gamage*), only the captain’s bunk is rated as a double,” Bailey said, “and there is nobody sleeping in there with me.”

Truth Aquatics of Santa Barbara, Calif., owned *Conception*, which was raised from the seafloor shortly after the fire. The company, now facing multiple lawsuits, has suspended operations “for a to-be-determined amount of time.”

“Right now we feel it’s important (to) dedicate our entire efforts to make our boats models of new regulations that we will continue to work on with the NTSB and Coast Guard,” the company wrote on its Facebook page.

Casey Conley

Hurricane's impact on Eastern puts OPC contract back in play

The U.S. Department of Homeland Security has granted Eastern Shipbuilding Group (ESG) limited extraordinary relief due to Hurricane Michael, reducing the company's construction contract for Coast Guard offshore patrol cutters (OPCs) to four vessels maximum.

ESG applied for extraordinary relief in June after its shipbuilding facilities in Panama City, Fla., suffered significant damage from the Category 5 hurricane in October 2018. The original contract for as many as 25 OPCs, awarded in 2016, was worth up to \$10.5 billion. The Coast Guard exercised contract options with ESG for the first vessel the month before the storm hit. Coast Guard officials plan to reopen bidding for the remainder of the OPC contract and issue a request for proposals (RFP) later this year.

The impact of the hurricane on ESG included the partial capsizing of a newly launched factory trawler, *North Star*, at the Panama City yard. Construction of the first OPC, *Argus*, resumed the month after the storm. Delivery was initially scheduled for fiscal year 2021.

The Coast Guard evaluated ESG's request for extraordinary relief along with the Department of Homeland Security, the Navy and third-party experts. After evaluating cost, schedule and performance factors, the parties determined the company's con-



U.S. Coast Guard photo

tinued work on the OPC project was essential to national defense, according to Coast Guard Chief Warrant Officer Barry Lane.

The 360-foot OPCs will replace the Coast Guard's fleet of medium-endurance cutters and help secure the border, disrupt drug cartels and prevent illegal immigration. The 210-foot and 270-foot medium-endurance cutters were commissioned between 1964 and 1991.

"This solution minimizes the production gap in OPC delivery while maintaining ESG's near-term productive ability," Lane said about the decision to grant limited extraordinary relief. "The existing contract will be limited (to) up to four OPCs due to the

Adm. Charles Ray, right, vice commandant of the Coast Guard, inspects components for the nation's first offshore patrol cutter during a tour of Eastern Shipbuilding in Panama City, Fla., in March. The shipyard's original contract for up to 25 OPCs has been limited to four as it regroups in the aftermath of Hurricane Michael.

uncertainties associated with the impacts of Hurricane Michael on ESG, and ESG's ability to ramp up the workforce needed to support the production of two OPCs per year."

Despite the hurricane, 90 percent of ESG's roughly 800 workers returned to their jobs by December 2018, *Professional Mariner* reported early last year. In addition to the OPCs, the shipbuilder is working on three Ollis-class

Staten Island ferries for the New York City Department of Transportation; two Canal-class inland towboats for Florida Marine Transporters; two Robert Allan Ltd. z-drive tugboats for Bisso Offshore; and an expedition sailing schooner.

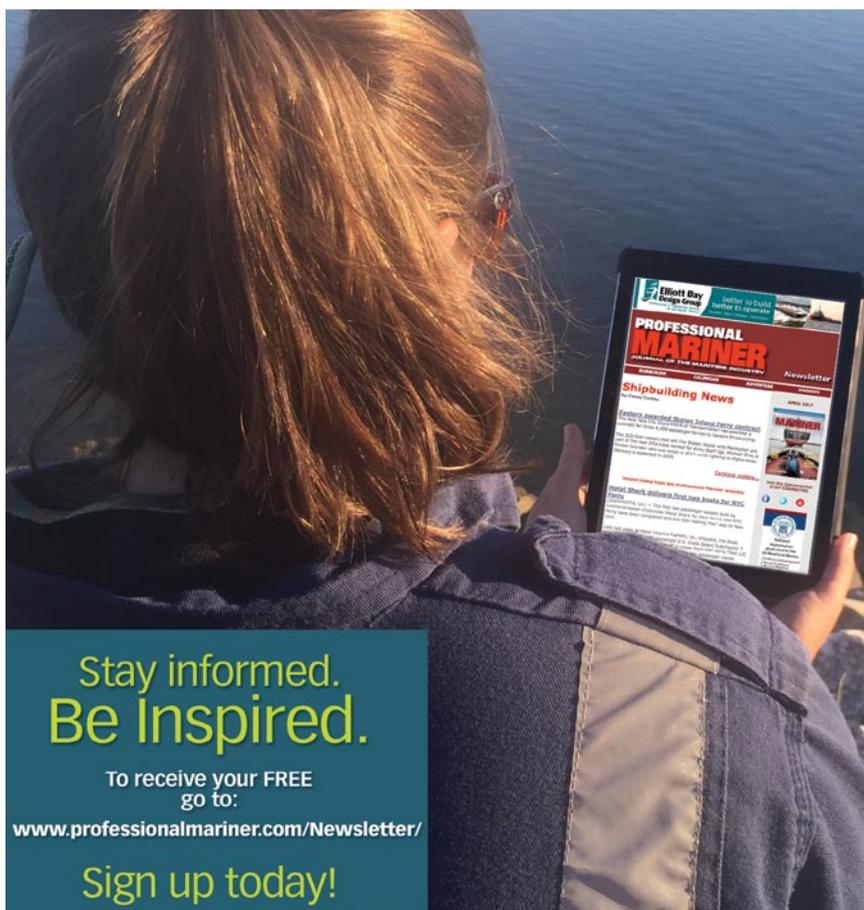
ESG is eligible to compete for the follow-on OPC construction contract. Lane said the Coast Guard anticipates releasing a new production RFP late in fiscal year 2020 and making an award for production in fiscal year 2022.

Bath Iron Works in Maine and Bollinger Shipyards in Louisiana submitted bids for the original OPC contract awarded to ESG in 2016. A representative from Bath Iron Works declined to comment on whether the shipyard would submit a new bid, and a Bollinger representative did not return a request for comment.

In the initial competition, the Coast Guard awarded contracts to three vendors for preliminary design, then selected ESG for the detail design and construction phase. For the follow-on procurement, the Coast Guard will build upon this effort to reduce variation, acquisition cost and production timelines, Lane said.

“The Coast Guard is committed to conducting a fair and open follow-on competition in order to acquire the OPC fleet needed to address the nation’s security needs, while maintaining public trust and stewardship of the American taxpayers’ dollars,” he said.

Sam Bojarski



**Stay informed.
Be Inspired.**

To receive your FREE go to:
www.professionalmariner.com/Newsletter/

Sign up today!



3-IN-1
Marine + LM Channels
+ Intrinsically Safe

new
M85IS

BRING IT ON.
Visit www.icomamerica.com/marine
for additional features and specs.

ICOM

©2020 Icom America Inc. The Icom logo is a registered trademark. 21023

NOAA plans to ‘sunset’ traditional paper charts by 2025

The National Oceanic and Atmospheric Administration (NOAA) will cease production of traditional paper nautical charts within five years, a move that reflects falling demand from commercial and recreational mariners.

NOAA, which announced the change in November, will begin phasing out paper and raster chart products by 2021 and fully shut down the program by Jan. 1, 2025. In the meantime, the agency is working to enhance its suite of electronic navigational chart (ENC) products that will replace the paper charts.

After 2025, mariners will still have access to paper charts printed on demand through approved third-party vendors, or through the online NOAA Custom Chart (NCC) application. The charts will be printed from NOAA ENC data, which will change the appearance and some of

the data displayed on the printed product.

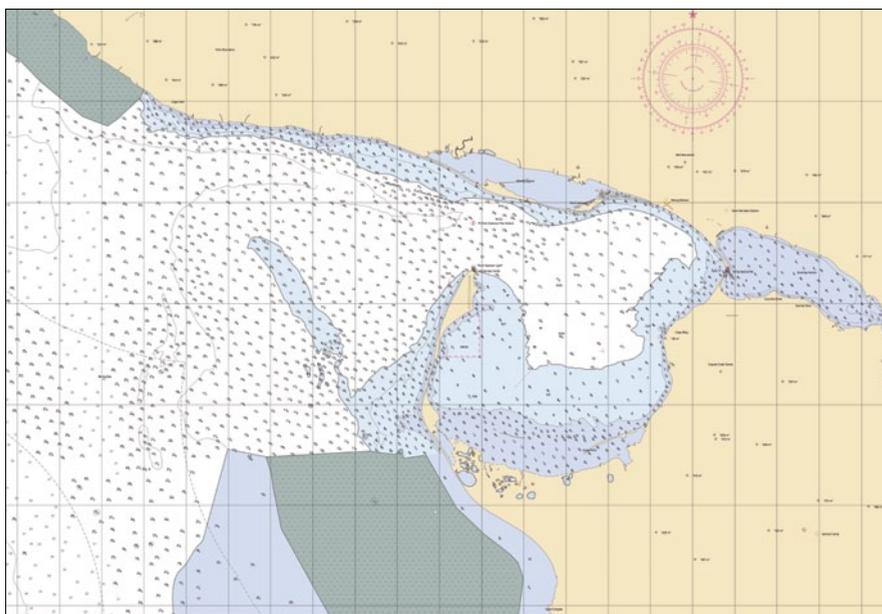
Capt. Chris van Westendorp, chief of NOAA’s Navigation Services Division within the Office of Coast Survey, is among the officials leading the transition. He said it would allow NOAA to focus its resources on a single product rather than two separate formats.

“By ‘sunseting’ the raster chart

process and moving to all ENCs ... we are going to be increasing the number of available charts eight-fold,” he said in a recent interview, suggesting the number of ENCs will jump from about 1,200 now to nearly 9,000 in the coming years.

The new ENC charts will offer higher resolution and better scales, among other improvements, van Westendorp said. They also will

A traditional NOAA paper chart of Port Clarence, Alaska, is shown at right, with the corresponding NOAA Custom Chart shown below. NCCs offer higher resolution and can be quickly updated to provide the latest navigational data.



incorporate corrections much faster than paper charts and eliminate the need for hand updates.

Paper navigational charts have been a mainstay aboard recreational and commercial vessels since the mid-1800s when the Coast Survey Office released its first chart of New York Harbor. These days, NOAA maintains about 1,000 paper charts covering 95,000 miles of ocean coastline and the Great Lakes.

The paper charts are a mix of art and science. Color and ink are used to identify depths, hazards, shipping lanes and other key details. Raster

charts can be viewed electronically, albeit with the same limitations as a paper chart. ENC's use digital data in a similar presentation as a traditional paper chart but with much more information available to the user.

Demand for paper charts has fallen sharply over the past decade due to changing regulations and the rise of new technology. NOAA stopped printing charts itself in 2014 and instead turned to third-party vendors. Most modern commercial vessels now have satellite links, electronic chart readers or powerful electronic chart display and information systems (ECDIS). Recreational mariners now can navigate using smartphone or tablet apps.

Capt. Morgan McManus, master of the training ship *Empire VI* at SUNY Maritime College, said NOAA's decision to sunset paper and raster charts effectively acknowledges what is already happening within the industry. The generation

now training to become mariners grew up with screens and they are accustomed to that type of interface.

"I love paper charts, but this generation coming up, they are used to a digital platform," McManus said. "I was with students on the training ship this past summer and they are so comfortable around a screen. The digital platform is comfortable for them. Do you try to fight that tendency?"

The training academies will continue teaching navigation using paper charts because, for now anyway, that is the format of Coast Guard exams. However, McManus noted that digital technology offers benefits compared to plotting on paper.

"When you put a position on a paper chart, you're showing where you were, not where you are going," he said. "When you are using an ECDIS display, you see where the ship is going a lot better than on a paper chart. Why wouldn't we

want to embrace that technology for better navigation and safer watchstanding?"

Captain's Supplies, a chart house and marine outfitter in Seattle, addressed the transition in a recent blog. In short, the company said, the change will have a limited effect considering mariners will still have access to on-demand paper charts.

"NOAA is discontinuing one of two digital formats they provide chart data in," the post said. "Print-on-demand charts will still be available, using the other digital format, from Captain's and from other providers of NOAA charts."

NOAA is seeking feedback through Feb. 1 on its plan to cease paper and raster chart products. As of late November, sentiment about the proposal was mixed, van Westendorp said. Comments can be posted via the following link: nauticalcharts.noaa.gov/customer-service/assist/.

Casey Conley



TUG-BARGE COUPLERS
Connection System Solutions for Coastal, Ocean and Lightering Service

INTERCON

Kirby Corporation ATB
Paul McLennan
155-02

www.intercon.com
PO Box 9055 • Kansas City, MO 64168 • USA
Phone (816) 741-0700 • Fax (816) 741-5232

INTERCONTINENTAL
ENGINEERING MANUFACTURING CORPORATION

Seafarers fearful of bearing brunt of sulfur cap enforcement

A global survey showing that seafarers are generally more content with their work now than in the recent past is tempered by a new concern: fears that mariners may be on the hook for noncompliance as vessel operators adapt to the International Maritime Organization's 2020 sulfur cap on fuel.

to the new low-sulfur fuel regulations, and sanctions disputes between countries that could entangle mariners.

"They asked questions of who will protect them if things go wrong, and expressed concerns that they do not always have the information to make the right

suggesting that some seafarers don't feel prepared for the cap," The Mission to Seafarers stated in a news release announcing the results of the latest survey.

Seafarers "spoke of being held responsible, and having to deal with whatever consequences that could entail, whether potential prosecution or incarceration," Jones told *Professional Mariner*.

"Seafarers' fear is real and we've expressed it in discussion at the IMO," said Jordan Biscardo, communications director for the Seafarers International Union, referring to enforcement of the new sulfur limit. If a sailor is prosecuted for a ship violating the cap, "it is the company/manager's responsibility to provide legal assistance to those impacted. While there are good companies that provide the necessary support, there (is) a plethora of shipping firms that fail to provide that support."

To ensure that mariners don't bear the brunt of unfair treatment, all stakeholders in the industry — particularly shipowners — need to step forward to fully understand how the regulations are enforced, advocates said.

"It is the companies, rather than the seafarers, who are unprepared for the cap, as it is only the companies that can make relevant decisions to ensure compliance," Biscardo said. "There has to be sufficient deterrent for noncompliance to ensure that the level playing field is not undermined.



Mariners' advocates say all stakeholders in the industry need to step forward to fully understand how the new sulfur regulations are enforced, with shipowners leading the way.

Courtesy: The Mission to Seafarers

The survey, conducted by The Mission to Seafarers and covering the third quarter of 2019, shows an increase in overall happiness from 6.27 to 6.59 on a 10-point scale. "This is positive news," according to the group. "It shows that it doesn't have to be doom and gloom, that seafarers can share and be open about the good and bad they experience."

Despite the increase in general happiness, several notable concerns were raised by some of the 2,500 mariners who took part in the survey. The most serious concern was the potential criminalization of sailors' actions related

choices," stated the report, written by Steven Jones for The Mission to Seafarers. Jones founded the Seafarers Happiness Index in 2015 and has conducted it quarterly since then.

Sailors' apprehension stems from the implementation of the IMO's 0.5 percent sulfur cap, which took effect on Jan. 1. The rule applies to all vessels on international voyages or on trips between two countries.

Many mariners fear they will be liable if vessels fail to meet this new standard. "The report indicates there is a widespread fear of blame for noncompliance,

However, this needs to be balanced against the need to ensure that all companies and seafarers are not penalized when efforts have been made to comply.”

Seafarer training is helpful, but Jones said those who enforce the rules and might prosecute mariners also need guidance “so they are fully availed of where problems lie, and to avoid any unfair treatment of crews.”

Another concern cited by Biscardo was the assessment of minor fines for violations. “Low fines could initiate verbal deals (by companies) to convince seafarers (masters and chief engineers)

Seafarers “spoke of being held responsible, and having to deal with whatever consequences that could entail,” Jones said.

to cheat,” he said. “This kind of situation impacts all the crews and is extremely frustrating for everyone.”

Mariners’ fears are also related

to problems with sanctions. Whether it involves vessels of certain flags or cargoes from nations subject to trade barriers, “it is the seafarers who have real concerns about what happens to them if they are caught in the crosshairs of global disputes,” Jones wrote.

Biscardo said the IMO has issued specific guidance about consistent implementation of the sulfur limit. “However, as the application of penalties is down to individual governments, there is concern that some will be far more draconian than others,” he said.

David A. Tyler

MARITIME COLLEGE
STATE UNIVERSITY OF NEW YORK
150 years of maritime education!

PROFESSIONAL MARINER TRAINING
AT SUNY MARITIME COLLEGE

STCW
revalidation
and
refresher
courses

[www.sunymaritime.edu/
page/professional-mariner-training](http://www.sunymaritime.edu/page/professional-mariner-training)
(718) 409-7341

Chafe-Pro
Don't Dock Without It!

PROTECT YOUR INVESTMENT

www.ChafePro.com • 1-844-NO-CHAPE

New SOLAS amendments take effect to improve lifeboat safety

For 10 years leading up to 2017, 60 seafarer fatalities and 145 serious injuries occurred globally during lifeboat testing, according to a study by the ship management firm InterManager.

International Maritime Organization (IMO) guidelines for life-saving appliances that took effect Jan. 1 raise awareness about lifeboat accidents and aim to “engineer out” the possibility of mistakes during drills, according to Sean Kline, director of maritime affairs for the Chamber of Shipping of America (CSA).

The IMO Maritime Safety Committee (MSC) adopted amendments to Safety of Life at Sea (SOLAS) regulations III/3 and III/20 in 2016. The amendments, contained in Resolution MSC.402(96), introduce new protocols for the maintenance and inspection of life-saving appliances and release gear, including rescue boats, fast-rescue boats, launching appliances and davit-launched life rafts. The guidelines are now being enforced by IMO member states. The provisions represent “the culmination of some 10 years’ work on

the issue. The intention is to ensure that seafarers can be confident that they can fully rely on the IMO-mandated life-saving appliances and equipment at their disposal,” Natasha Brown, media and communications officer at the IMO, told *Professional Mariner*.

Equipment carriage requirements will not change for operators. Lt. Amy Midgett, spokeswoman for the U.S. Coast Guard, said that with equipment manufacturers, service providers, operators and class societies already following non-mandatory IMO circulars MSC.1/1206 and MSC.1/1277, she anticipates no significant change to the status quo. The circulars provide guidelines for periodic equipment servicing and recommendations on service provider authorization.

MSC.402(96) contains further guidance related to service providers, requiring personnel to receive certifications for each make and type of equipment. Under the guidelines, training will include classroom instruction, field experience and a competence assessment. Midgett told *Professional Mariner* in November that the Coast Guard is developing policy containing additional guidance on personnel certification, but she did not say when it would be finalized. According to a Navigation and Vessel Inspection Circular (NVIC) issued by the Coast Guard on Nov. 20, vessel operators must use certified personnel from an equipment manufacturer or authorized third-

Petty Officer 1st Class Eric Kelley, a marine science technician at Coast Guard Marine Safety Unit Portland (Ore.), observes a steering test of a lifeboat aboard the vehicle carrier *Morning Catherine* during a Port State Control exam in 2017. During an inspection, the technicians ensure that lifeboats have functioning rudders, fresh provisions and are ready to deploy in an emergency.



U.S. Coast Guard photo

party service provider for annual and five-year examinations of safety equipment.

In addition to the service provider requirement, the IMO amendments contain instructions for five-year testing for operational overloads, including the adjustment of release gear and examination of vital parts in the release system. MSC.402(96) also contains step-by-step instructions for annual operational testing of life-saving gear, and it identifies specific life-boat items that should be examined — boat structure, engine and propulsion systems, and sprinkler systems among them.

Kline said the extra detail would reduce the potential for injury, noting the high number of casualties worldwide resulting from free-fall accidents during drills.

He summarized the CSA's message to operators regarding the new guidelines: "Look at your service providers ... talk to your flag states and make sure that your service provider is still one of the ones that is allowed to be used."

While weekly and monthly inspections may still be carried out by crewmembers under SOLAS, duties will change slightly. In addition to a third mate, a senior ship's officer must certify inspections of

life-saving equipment under the amendments.

"There's going to be a second set of eyes on there, whether that's the captain or the chief mate," Kline added.

To ensure compliance, operators must document the servicing of life-saving appliances, Midgett said. Operators should make these records available during yearly inspections, according to the Nov. 20 Coast Guard circular.

"The takeaway is that we're going to have safer lifeboats for the seafarers, and that's always what we have to keep in mind," Kline said.

Sam Bojarski

Chesapeake Marine Training Institute



Located near the historic triangle of Yorktown, Jamestown, and Williamsburg, VA

US Coast Guard Approved Courses

Proudly training professional mariners for more than 25 years. Visit our website for complete course listings, including License Prep Programs, Able Seaman, STCW, Radar, ECDIS and more. Call 800-642-CMTI



Bringing Professional Mariner Training To You Since 1992!



3566 George Washington Memorial Hwy.,
PO Box 1153, Hayes, VA 23072-1153
www.chespeakmarineinst.com



GLADDING-HEARN

SHIPBUILDING

Duclos Corporation

gladding-hearn.com

GSA

Coast Guard proposes first decrease in Lakes pilot rates in six years

The U.S. Coast Guard has proposed a rate decrease of about 1 percent for the three Great Lakes pilots' associations for 2020, the first reduction after a five-year stretch of double-digit increases.

The Coast Guard sets rates for American pilots in the Lakes Pilots Association, the Western Great Lakes Pilots Association, and the St. Lawrence Seaway Pilots Association. The proposed rates for 2020 range from \$327 to \$757 per hour, depending on which of six pilotage services is provided. The fees are paid by shippers to the pilot associations.

The proposed rates are based on a workforce of 52 U.S. pilots with an average compensation of \$367,085, a new high. The Coast Guard estimates the projected revenue for all three pilot districts will be \$27.76 million for the 2020 season. That's \$225,658 less in estimated payments compared to the 2019 season.

"We've just suffered five years of double-digit increases, so it's good, they're taking their foot off the gas pedal, but the car is still speeding ahead," said Steve Fisher, executive director of the American Great Lakes Ports Association, one of the shipping groups that has been asking the Coast Guard to rein in pilot rates.

For 2020, costs will actually increase by roughly \$1 million due to inflation and the addition of one new pilot. However, because the Coast Guard did not

seek funds for pilot training this year (as it did in 2019), the overall cost of the program will shrink.

All vessels engaged in foreign trade — known as "salties" — are required to engage U.S. or Canadian pilots during their transit through the Great Lakes. The regulated monopoly system used

“We've just suffered five years of double-digit increases, so it's good, they're taking their foot off the gas pedal, but the car is still speeding ahead.”

Steve Fisher, American Great Lakes Ports Association

on the Lakes is similar to those used in other ports, but the main difference is that the federal government administers it rather than state governments.

The Coast Guard sets pilotage rates to cover operating and training expenses for the pilot associations. However, the revenues depend on the actual amount of traffic, which the Coast Guard must estimate each year.

For the 2016 season, the pilots received an additional \$4 million to \$5 million due to the Coast Guard's miscalculations. Industry lawsuits against the Coast Guard

for the 2016 and 2018 seasons are still working through the courts.

"The pilots ended up with millions of dollars of additional funds that even the Coast Guard didn't intend for them to have," Fisher said.

In their submitted comments to the notice of public rulemaking for 2020, the Great Lakes pilots said they are undercompensated compared to other U.S. pilots. For example, pilots at the Port of New Orleans are paid an average of \$459,051, not including pension or medical benefits, which are paid separately. Previously the Coast Guard said it would undertake a comprehensive study of pilot compensation across the country, but that study was not referenced in the 2020 rate proposal.

The proposal eliminates the surcharge for training new pilots. However, two of the districts are training 11 pilots to replace retiring personnel. The pilots also asked for an administrative pilot slot to assist the president of each association with those duties.

The AGLPA and other industry groups have asked the Coast Guard to set rates every three years instead of annually.

"They are failing to realize that they're causing a great deal of animosity within the industry by pitting us all against each other every year as they adjust these rates," Fisher said.

Gary Wollenhaupt

Towing

Story and photos by Will Van Dorp

Ice-fighting crew on Great Lakes ATB keeps cargo flowing

At 2030, the articulated tug-barge *Clyde S. VanEnkevort/Erie Trader* entered the cold, dark St. Clair River, about six hours north of the ATB's destination: a steel plant in Detroit, Mich. The Blue Water Bridge was disappearing off the stern, as soon would be another shipping season. It was mid-January 2019 and the Soo Locks in Sault Ste. Marie were shutting down, blocking the connection between the ore docks on Lake Superior and the mills on the lower Great Lakes.

Compared with a year before, the St. Clair River had little ice, although the forecast of plunging temperatures would change that soon. The river was quiet, with none of the small boat traffic of the summer. The AB standing watch in the crow's nest on the bow of the barge

felt less stress than in the warmer months. The most he'd see now might be impatient ice fishermen and wildlife on the ice.

As *Clyde S. VanEnkevort* and *Erie Trader* headed downriver, a few railings on the tug and barge were still festooned with strings of Christmas lights, although the lighted Santa Claus mounted atop the A-frame of the self-unloader was gone. The crew had spent both Christmas and New Year's Day aboard, morale boosted by holiday buffets in the galley. Now, they began to prepare for winter layup: taking down decorations, packing personal gear, cleaning cabins, doing laundry, consuming the last of the grub, and of

Able seaman Jacob Bourdage stands against a thick curtain of ice that built up on *Erie Trader* as the barge transited Lake Superior. Frigid winds blowing spray off the Great Lakes result in frequent ice-breaking duty.





A deck hand on the ATB descends to the Poe Lock to assist U.S. Army Corps of Engineers personnel with the locking process.

course, once at the dock in Detroit, discharging this cargo of ore.

The voyage was the 59th of the shipping season. The cargo of approximately 35,000 tons of taconite pellets from the Canadian National ore dock in Two Harbors, Minn., would bring the ATB's season total to just shy of 2 million tons. Its

downbound cargoes had all been ore from Lake Superior ports, and its upbound cargoes all limestone used as flux in the production of taconite pellets. The Great Lakes region has some of the largest non-fuel mineral deposits in close proximity to water transportation in the world.

After discharging its

cargo at U.S. Steel's Zug Island plant in Detroit, the ATB would make for winter layup in Toledo, Ohio. A skeleton crew staying aboard would address lists of maintenance tasks, upgrades, modifications, replacements and repairs. Once in layup, the projected mid-March fitting out and departure for the next season, the ATB's eighth,

would be right around the corner.

Clyde S. VanEnkevort and *Erie Trader* combine as the newest ATB in the ore and stone trade on the Great Lakes. As a single unit, the overall length of the two vessels is 875 feet. *Clyde S.* is 135 feet by 50 feet. The 22-foot-wide pilothouse may look small from anywhere on the barge, but the helm is perched at a 71-foot height of eye. Another way to think of that: There are 84 steps in five flights leading up from the mess to the seat in the pilothouse. *Erie Trader* is 740 feet by 78 feet. If you walked around the barge for exercise, it would take only three laps to equal one mile. Everyone on board carries a marine radio, but to see what's happening on deck,

Clyde S. VanEnkevort eases *Erie Trader* into the Poe Lock at Sault Ste. Marie, Mich., the only lock at Soo big enough to accommodate the ATB. The combined length of the two vessels is 875 feet, with the barge measuring 78 feet at the beam.



crew in the pilothouse use binoculars.

For propulsion, *Clyde S.* has two MaK 8M32C EPA Tier 2 main engines totaling 10,876 horsepower. The mains turn five-blade Berg controllable-pitch propellers that are 14.5 feet wide. Fuel consumption is approximately 400 gallons per hour. To put that into perspective, *Erie Trader's* maximum cargo capacity of 38,516 tons converts to the equivalent of more than 1,900 20-ton trucks. Calculate the cost and fuel consumption of that many trucks carrying ore southward and you'll appreciate the economy of waterborne transportation.

The tug and barge were christened in April 2012 at Donjon Shipbuilding & Repair in Erie, Pa. VanEnkevort Tug & Barge (VTB) purchased the unit in 2017 after it completed a five-year charter to American Steamship Company. Although it was the only ATB operated by American Steamship, which has six 1,000-foot freighters on the Lakes, surprisingly it was not the smallest vessel in the company's fleet. In fact, many ore carriers have less capacity. The line from Gordon Lightfoot's "The Wreck of the *Edmund Fitzgerald*"

about the freighter being able to carry more than most — "26,000 tons more than (it) weighed empty" — needs context. That was only true until the 1970s. *Erie Trader* is beamier, longer and has more than one-third greater capacity than did *Edmund Fitzgerald*.

The leading advantage of ATBs over freighters is the smaller crew size, and therefore lower operating costs. This is made possible by the extensive use of automation. *Clyde S.* and *Erie Trader* work with a crew of 14, even less than the new Canadian bulk carriers built for minimal personnel. Canada Steamship Lines' Trillium class of self-unloaders carries 16, and Algoma Central's Equinox boats carry 18 (dry-bulk carriers on the Great Lakes are called boats). VanEnkevort's three ATBs offer the perfect balance of cargo capacity and size, allowing them to serve ports that larger boats can't — Lorain (Ohio), Green Bay (Wis.) and South Chicago to name a few.

During the ice months at the beginning and end of the season, ATBs offer another advantage: The ability of the tug to leave the notch and break a track through the ice, or

Some careers might offer
security, advancement or benefits.

MSC HAS THEM ALL

MSC careers are some of the best in the maritime industry. That's because we combine job security with training and advancement opportunities. This combination will take your career further, faster than you thought possible.

When you know this path includes federal benefits, paid leave, flexibility and camaraderie, you know MSC is a career worth pursuing.

We are actively hiring for:

**Able Seaman | Deck Engineer Machinist
Refrigeration Engineer | Pumpman
Electronics Technician | Yeoman Storekeeper
Assistant Storekeeper | Steward Cook
Chief Cook | Cook Baker | Communications
positions | Any Entry Level position**

Several positions have bonuses offered.

Visit sealiftcommand.com to learn more about open positions in various departments today!

info@sealiftcommand.com
877-292-3002
sealiftcommand.com



**MILITARY
SEALIFT
COMMAND**



*MSC is an equal opportunity employer
and a drug-free workplace.*



sweep it from the sides of docks. A conventional ore boat requires the assistance of a tug or an icebreaker in these cases.

The *Clyde S.* and *Erie Trader* crew was surprisingly young, with an average age of 34. The first mate, a hawsepiper with experience in the Gulf of Mexico and South America, is 35. The second mate, a graduate of Great Lakes Maritime Academy with experience on Jones Act container vessels, is just 28. The chief engineer is 30. All of the crewmembers on the voyage were from Michigan except one. In some cases during the season, the ATB passes within view of their hometowns along the Lakes, where some of their families have lived and worked on ships or in mining for several generations.

The ATB's captain,

Mark Mather, is in the pilothouse frequently day and night — always in the rivers, as well as for the locks and docks when a mate oversees operations on deck. A mate also manages the loading and discharging of cargo.

Although voyages on *Clyde S.* and *Erie Trader* are quite long, mostly between ore docks on Lake Superior and steel mill ports on the lower Lakes, deck crews stay busy. Besides maintaining the self-unloading gear to minimize the time spent at docks, summer means rust-busting and painting. The cold months mean icebreaking on deck and around the hatch covers. When ice encases the covers, they can't be opened, preventing the loading of cargo. Although steam can be used to melt the ice, transiting the windy

Lakes while temperatures are below freezing means cleared areas are continuously being re-coated. This translates into fatiguing work to get rid of the ice with sledgehammers, crowbars and even propane torches for able seamen and deck hands.

Erie Trader has seven cargo holds ranging from 72 feet to 120 feet long. The hatch covers, weighing several tons each, measure 50 feet by 12 feet. They are opened and closed using a track crane called an "iron deck hand." The holds have slanted sides that funnel the ore pellets to narrow gates at the bottom. During cargo discharge, a gateman in the tunnel below controls the flow of ore dropping onto a single continuous rubber belt called the loop. It carries the ore upward and toward a 265-foot boom,

which is fitted with another belt that transports the ore to shore. The boom can swing 190 degrees, or 95 degrees on either side of the barge.

Boom operations are controlled by touch screens in two shacks, one on either side of the barge. The self-unloading gear can discharge up to 6,000 tons of taconite pellets an hour, a process that begins almost immediately after tie-up. At the Zug Island terminal where the River Rouge meets the Detroit River, all dock lines were made fast at 0245. By 0300, the boom was swung to port over the designated discharge area and ore was conveyed off the barge.

Loading at the gravity-feed dock is even faster. If the dock is "charged," or adequately supplied by railcars known as "ore jennies" running atop the dock, *Erie Trader* can be loaded in four hours. During loading and unloading, *Clyde S.* unpins from the barge to facilitate ballast and cargo operations. The draft of the barge can change by 8 feet depend-



Cason J. Callaway, a self-discharging bulk carrier, dwarfs Clyde S. VanEnkevort, far left, at the dock at Two Harbors, Minn.



Ore shuttles, left, load the ice-encased *Erie Trader* at the dock in Two Harbors, Minn. The barge carried nearly 2 million tons of cargo during the shipping season that ended in mid-January 2019. Below, tools employed to keep barge's hatch covers clear of ice include crowbars, sledgehammers and propane torches.

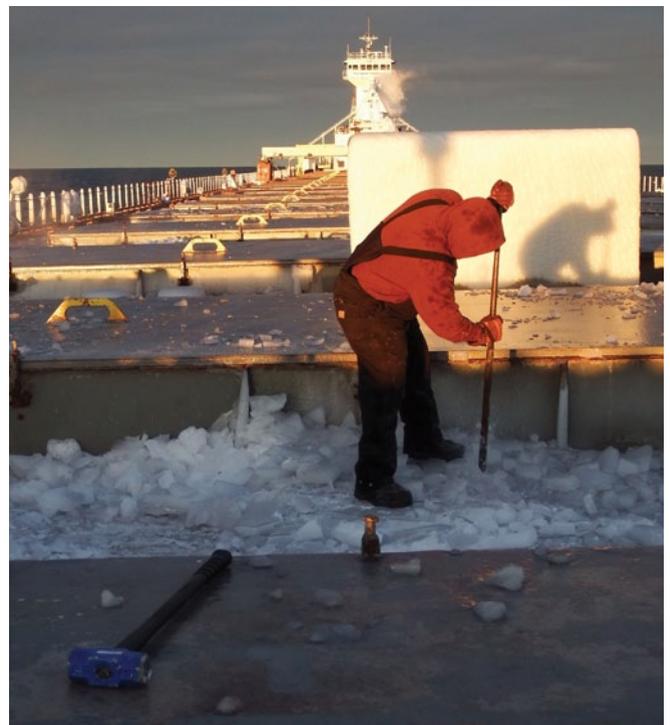
ing on whether it is full or empty.

The upbound portion of the transit had been affected by adverse winds, leading the captain to plot a course as close as safely possible to the lee shore to minimize icing. This is called beachcombing. At the end of the season, a firm deadline for the ore trade is the closure of the Soo Locks, typically Jan. 15. If ice conditions permit, some traffic moving mostly salt and petroleum continues on Lake Michigan, Lake Huron and Lake Erie after the Soo Locks shut down.

All season long, deck hands assist at Soo with the locking-through process, descending from the barge to the lock wall by means of the landing chair, a process requiring teamwork and skill to be executed safely. In cold weather, it also requires the removal of ice that can foul the landing chair

lines. Once down on the lock wall, deck hands can retrieve mail and packages from an office there. Two other locations for parcel pickup are near Detroit's Ambassador Bridge, where the J.W. Westcott Co. has catered to mariners since 1874, and at the Soo Marine Supply warehouse. Both businesses operate vessels that make deliveries to ships while underway.

Clyde S. and *Erie Trader* were among the last vessels to transit the Soo Locks in the 2018 shipping season. About 20 miles behind the ATB was the bulk carrier *Hon. James L. Oberstar*, which eventually passed *Clyde S.* at the Zug Island dock with its last cargo of the season — ore bound for Ashtabula, Ohio — at about 0300. *Oberstar's* captain, Joe Ruch, hailed *Clyde S.* on the radio as Mather completed paperwork in the pilothouse. The two mariners are



friends and would see each other at the International Ship Masters' Association convention in February. People working on the Lakes are a small and close-knit group, and Ruch blew a salute to *Clyde S.* as they passed.

Mather answered by flashing the vessel's lights. "You don't want to blow the whistle while tied

up at the dock — that really scares the heck out of the dockworkers," he explained. The two mariners discussed layup and vacation plans before wishing each other a safe voyage and giving regards to their respective families. "Have a good winter," came the departing response from *Oberstar*, now invisible in the night. •



Doing quiet time: Hybrids keep tourists flowing to ‘The Rock’

Story and photos by Casey Conley

Alcatraz Flyer was about to get underway from San Francisco’s Pier 33 when a passenger approached the wheelhouse. The young man, speaking with an Eastern European accent, wondered if anyone could swim from Alcatraz to shore.

He was particularly curious if such a feat were possible given the “dangerous

A passenger gets a closer look, above, at the former prison buildings on Alcatraz Island as Alcatraz Flyer approaches the island’s lone boat landing. Solar panels supply electrical power to the vessel, and in this case, a little shade from the May sun. Capt. Ryan Palmer, left, joined Alcatraz Cruises as a port captain more than three years ago. “Not a lot of people can say they have such a cool place to work,” he says.

sharks” lurking below the surface. Brian Dobruck, the vessel’s first officer, offered an answer both reassuring and perhaps a tad disappointing.

“People swim it. There is something swimming there right now,” Dobruck said. “There are no dangerous sharks. That is just something the guards would tell the inmates.”

Such is the mystique surrounding the former Alcatraz Federal Penitentiary that even its myths are known around the world. The former island fortress turned federal prison became a tourist attraction in 1972 operated by the National Park Service. Nearly 1.7 mil-

lion people visited last year, and every one arrived via Alcatraz Cruises.

Capt. Ryan Palmer joined the company, owned by Hornblower, more than three years ago after working for a Los Angeles tour boat operator. He was drawn in part by the island’s history and the allure it has for so many visitors.

“Not a lot of people can say they have such a cool place to work,” Palmer said after docking at Alcatraz Island on a sunny, warm May morning. “You look over at the passengers along the side of the boat and they are in awe.”

The 1.25-mile voyage from the mainland began



just 15 minutes earlier. Positioned at the starboard wing station, Palmer backed the 128-foot diesel-electric hybrid off the pier. He spun the stern 90 degrees, then pointed the bow north.

Palmer steered the ship from the center wheelhouse while Dobruck kept look-out alongside. Although the crossing itself is short, every trip is different. Tidal currents move as fast as 4 knots in the main channel and up to 6 knots around the island. Winds from the west are a near constant in San Francisco Bay, and commercial and recreational vessels are always coming and going. Fog is another challenge.

The 22-acre Alcatraz Island, with its historic lighthouse and white prison buildings, came into focus as the ship sped along at 8 knots. *Alcatraz Flyer* normally docks starboard side to the landing, requiring captains to sail past it, then spin 180 degrees. Palmer steered from the starboard wing station, occasionally peering over the side to gauge distances from the dock.

Knowing the tides and their characteristics is an important part of each approach to Alcatraz. Flood tides tend to push on the stern during docking, while ebb tides often work against the bow. This isn't always the case, however, and on this particular voyage the current

Dozens of solar panels and two wind turbines installed aft of the upper deck generate energy for house power, reducing the load on the gensets.

pushed the ship away from the dock.

"If you're not paying attention, you can get into trouble pretty fast," Palmer said.

"The toughest landings are the ones without a current," Dobruck added, noting that captains often expect forces on the bow or stern and plan their approaches accordingly.

San Francisco Bay is home to some of the cleanest-running vessels in the country, with multiple Tier 4-rated tugboats, Baydelta's new diesel-electric hybrid tug *Delta Teresa*, and *Enhydra*, Red and White

power for Baldor motors that turn the shafts. Roughly 150 batteries installed in void spaces provide backup power. Typically, captains run on a single genset to reduce fuel consumption and emissions.

Dozens of solar panels and two wind turbines installed aft of the upper deck generate energy for house power, reducing the load on the gensets. This system, effectively designed in-house, was installed on *Alcatraz Flyer* in 2013.

Palmer previously operated nearly identical ships in Southern California, albeit



Alcatraz Flyer makes headway with the eastern span of the Bay Bridge in the background. Wind turbines installed aft can supply ship service power.

Fleet's battery-electric hybrid. The diesel-electric hybrid systems aboard *Alcatraz Flyer* and its sister ship, *Alcatraz Clipper*, predate all of these.

The hybrid systems on *Flyer* and *Clipper* consist of twin MTU Series 60 generators producing electric

power with conventional propulsion. Both versions, he said, handle well, particularly when "walking" to the dock. Extra weight from the battery banks and a momentary lag due to the power transfer from the gensets to the electric motors are about the only differences.



Capt. Chase Borchers, left, checks the distance from the dock as the diesel-powered *Islander* arrives at Alcatraz Island. *Alcatraz Flyer*, below, can deliver 1,400 horsepower from twin MTU Series 60 generators linked to Baldor electric motors. Roughly 150 batteries are available for backup power. Far right, *Islander* heads back across the bay to take on another group of tourists.

“(The hybrid) has the same characteristics, but it is just much heavier. It sits a little lower,” Palmer said. “You have to be 10 seconds ahead in your thought process as you make maneuvers and adjust accordingly.”

After docking, Dobruck and deck hands Stephen Chapman, Taylor Campbell and Jamie Bartlett worked together to usher the 281 passengers off the ship. Although *Alcatraz Flyer* can carry up to 700 people, it rarely exceeds 500 due to National Park Service limits. Those rules cap the number of people on the island at any time. The park service also sets admission prices, which include the round-trip boat ride.

The return voyage took a slightly different route, bringing the ship farther west than the inbound run. This is done in part to ensure sufficient spac-

ing between other company vessels sailing to the island. Along the way, passengers flocked to the upper deck to snap pictures of Alcatraz and the San Francisco skyline. The approach into Pier 33 allows captains to dock bow-first.

Palmer’s second round trip of the morning com-

menced about 15 minutes later at 1130. The upper deck was packed with excited children visiting the island on a school outing.

“The kids are very excited to be here,” Dobruck observed.

“It’s Alcatraz, baby,” Palmer quipped.

The second voyage of the morning proceeded just as the first. Deck hands positioned forward and aft called out “all clear” as the vessel backed away from the dock. The course and heading were nearly identical, but winds were now gusting 25 mph from the west, raising an occasional whitecap on the bay.

Vessel traffic had picked up considerably. White sails dotted the horizon, and fast ferries zigged and zagged in every direction. Palmer maintained course as U.S.





and Chinese teams sailed F50 catamarans toward the Golden Gate Bridge ahead of a weekend competition. The high-end sailboats, capable of reaching nearly 50 knots, slowed down considerably to let the larger vessel through.

“They are professionals. They know what they are doing,” Dobruck said of the racing crews.

Just a few minutes later, Red and White Fleet’s tour boat, *Royal Prince*, rounded Alcatraz’s north side as Palmer approached from the south. *Royal Prince* crept along to give its guests plenty of time to see the prison buildings, and its captain stayed a couple of hundred yards from the island.

“*Royal Prince*, looks like you’re taking it wide, so let’s do starboard to starboard,”

Palmer called to his counterpart over radio, noting the vessel’s wide berth from the island’s dock.

“Roger,” the Red and White captain confirmed, “starboard to starboard.”

“Everyone knows what everyone else is doing,” Palmer said, referring to other tour and ferry operators. “So it all works out.”

As he did before, Palmer passed the Alcatraz dock and then spun around toward the landing. The current more or less cooperated this time as he guided the vessel against the dock. The island’s high bluff offered some protection from the westerly winds, and the 2-knot facing current made for a smooth docking maneuver.

Some mariners would have a hard time doing the same thing, multiple times a

Knowing the tides and their characteristics is an important part of each approach to Alcatraz. Flood tides tend to push on the stern during docking, while ebb tides often work against the bow.

day, five days a week, month after month. Others, like Palmer, appreciate it.

“There is consistency to it,” he said. “We also get to meet all kinds of people from all over the world. They are super happy to be here, and seeing the expressions on their faces is pretty great.”

Behind Palmer on the upper deck, passengers lined the starboard side of the boat, aiming smartphones and digital cameras toward the island. The prison’s infamous cell house, once home to gangsters Whitey Bulger, Al Capone, “Machine Gun” Kelly and hundreds of lesser-known convicts, loomed on the bluff.

Without missing a beat, Palmer walked to the microphone. “Here we are, folks,” he said. “Welcome to ‘The Rock.’”

At Work



Alabama River ferry reborn with electric propulsion

Capt. Ray Parker signaled to the deck hand to lift the vehicle ramp. With that, and a toot on the horn, the nation's first all-electric passenger/vehicle ferry slipped its mooring in Camden, Ala., and entered the Alabama River.

The 95-by-42-foot *Gee's Bend Ferry* was built in 2004 with John Deere diesel propulsion. Since 2006, the ferry has been managed and operated by Hornblower Marine Services (HMS). It can accommodate 15 vehicles and up to 132 passengers.

In 2015, HMS, Glosten naval architects and the Alabama Department of Transportation, partially funded by a grant from the U.S. Environmental Protection Agency, studied the feasibility of converting the vessel to electric propulsion.

Glosten then developed the detailed design for the conversion that was undertaken by Master Marine Inc. of Bayou La Batre, Ala.

Sean Caughlan, a senior marine engineer with Glosten, said there are currently no federal regulations for vessels powered by lithium-ion batteries, which meant that designers and the Coast Guard had to establish a regulatory framework.

"The Coast Guard was very good to work with and provided a guidance letter back in early 2016, which we used as a basis throughout the design and certification process," he said. The collaboration continued right up until the time the converted ferry entered service in early 2019.

The ferry was gutted and all of the machinery removed to make way for the electric system sup-

Story and photos by Brian Gauvin

Gee's Bend Ferry heads down the Alabama River on the 15-minute run from Camden to Gee's Bend, Ala. Previously powered by two diesels, the vessel is now all-electric.

plied by American Traction Systems (ATS) of Fort Myers, Fla. The integration of all of the elements was conducted by Marine Interface of East Northport, N.Y.

"Determining the size and capacity of the batteries was a challenge

Gee's Bend Ferry SPECIFICATIONS

Owner/operator: Hornblower Marine Services, Dauphin Island, Ala./Alabama Department of Transportation, Mobile, Ala.
Designer: Glosten, Seattle, Wash.
Conversion shipyard: Master Marine Inc., Bayou La Batre, Ala.
Integrator: Marine Interface, East Northport, N.Y.
Dimensions: L: 95' B: 42' D: 3'
Crew size: Two

PROPULSION

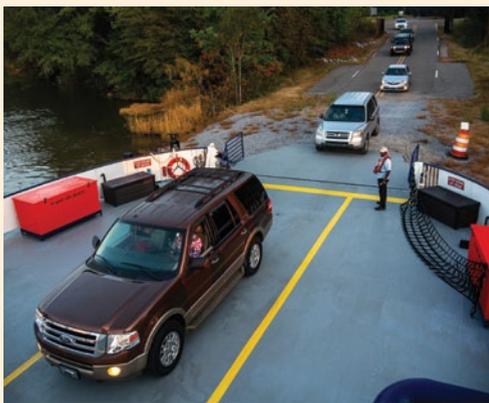
- (4) Baldor 1DDRPM281504 150-hp electric motors
- Walter RO-61 gearboxes, 3:1 reduction
- American Traction Systems components
- Spear Power Systems batteries

that needed to balance cost, size and recharge frequency without compromising safety or straining operations,” Caughlan said. The numbers added up, and the battery banks — supplied by Spear Power Systems of Grandview, Mo. — have proven to work well with the operating and recharging schedule of the ferry.

The four Baldor electric motors with Walter gearboxes have plenty of space, compared to their two diesel predecessors, in the low engine room. Each electric motor produces 150 horsepower at 1,800 rpm. Service speed is 8 knots.

The ATS propulsion rack converts AC shore power to DC power feeding two battery banks, which are located in deckhouses port and starboard. Each bank drives two motors, providing redundancy in the event of equipment failure. There are charging stations at both ferry terminals, one in Camden and the other 1.7 miles downriver in Gee’s Bend, also known as Boykin.

“This project is significant because it opens this technology up for the U.S. maritime industry,” said Tim Aguirre, general manager of HMS Ferries Alabama. “Of course not everyone was able or wanted to switch to electric cars when first introduced, and the same gradual acceptance and application should probably be expected with electric vessels as the science matures. ALDOT, HMS Ferries and the EPA are proud that we have been able to demonstrate that this technology can work on *Gee’s Bend Ferry*, and are excited to explore the next phase of powering the ferry from a solar-powered microgrid.”



Capt. Ray Parker, above, mans the helm of the ferry on an afternoon run. Recharging stations at the vessel’s two destinations provide electrical power. Deck hand Vondale McGraw, left, directs commuters bound for Camden, Ala., at the Gee’s Bend dock.



Battery banks are located in deckhouses port and starboard, above, on the ferry. Each bank consists of two strings of six batteries. Four Baldor electric motors, right, coupled to Walter gearboxes, provide a total of 600 horsepower at 1,800 rpm.



Casualties

American captain, crew honored for valor in *Sincerity Ace* rescue



Aboard *Green Lake* in the Pacific Northwest after the rescue are, from left, crewmembers Ben Anderson, Jolanta Goch, John Rawlings, Bernardo Bartolome, Robert Calvo, Isaac Amissah, Paul Gottschling, Ted Thompson, Mario Santos, Peter Schuetz and Jose Clotter. All completed training at the Paul Hall Center in Piney Point, Md., which is affiliated with the Seafarers International Union.

Battling 30-knot winds, 25-foot swells and complete darkness, *Green Lake* maneuvered alongside an overboard mariner from the burning vehicle carrier *Sincerity Ace*. More than an hour later, the exhausted man clung to *Green Lake's* pilot ladder while crew tried to coax him up the last few rungs.

The mariner struggled for nearly 45 minutes as the 655-foot U.S.-flagged vehicle carrier pitched in the swell. He fell several times but each time managed to regain his footing on the ladder. Finally, he succumbed to exhaustion, slipped into the water and drifted away.

His death stunned *Green Lake's* crew, who had worked together to try to save the man in a desolate

corner of the Pacific Ocean about 1,800 nautical miles northwest of Honolulu. *Green Lake* Capt. William Boyce saw the devastation on his crew's faces. But as they continued toward the burning ship, he

reminded them there were more people to save.

Green Lake ultimately rescued seven people from *Sincerity Ace* despite extremely challenging conditions. Other ships rescued nine more

A U.S. Coast Guard air crew flies over *Sincerity Ace* as the vehicle carrier burns on Dec. 31, 2018, in the North Pacific. The plane dropped rescue supplies to the bulk carrier *Genco Augustus*, which can be seen in the background. In the foreground is the U.S.-flagged vehicle carrier *Green Lake*, which rescued seven people from *Sincerity Ace*.



people, but five crew died in the incident. For their actions, Boyce and his crew earned a certificate of commendation from the International Maritime Organization (IMO), and the Gallant Ship Citation and Merchant Marine Medals for Outstanding Achievement from the U.S. Maritime Administration (MarAd).

“What has gotten lost in all the accolades is the performance of the crew of *Green Lake*,” Boyce told *Professional Mariner*. “They worked

“The emotional trauma that the crew and particularly the survivors experienced was very real, as the highs and lows of that day really took a toll on all of us.”

Capt. William Boyce

together as a team during a real long, tough, emotional day under extreme conditions.”

The 650-foot Panama-flagged *Sincerity Ace* left Yokohama, Japan, for Honolulu with 3,500 vehicles a few days before the incident. Crew spotted the fire below deck late on Dec. 30, 2018. The flames quickly grew out of control and spread to other decks. Crew took refuge in the wheelhouse while awaiting help from nearby ships.

Sincerity Ace was in Yokohama when *Green Lake* arrived for a

Captain's praise for the *Green Lake* crew

The U.S.-flagged vehicle carrier *Green Lake* saved seven people from the Panama-flagged *Sincerity Ace* after it caught fire in the North Pacific late on Dec. 30, 2018. Capt. William Boyce and chief mate Kevin Camarda oversaw a chaotic rescue that utilized every crewmember on board during the 18-hour ordeal.

Here is how Boyce described the event, with the contributions from each crewmember:

- “Under the guidance of chief mate Kevin Camarda, chief engineer Joe Tierney, first engineer Shauna Glasser and bosun Isaac Amissah, the deck crew of Bernardo Bartolome, Ted Thompson, Robert Calvo and Paul Gottschling worked tirelessly (on Dec. 31) from 0200 to 2000 rigging, improvising and figuring out how we were going to get the survivors on board.”
- “It was challenging and dangerous, and they all performed admirably. The second mate, Chelsea Mar-

tin, handled the bridge telegraph, thruster, satphone calls, USCG HC-130 coms, and kept an extremely accurate detailed log. Chelsea multitasked like I have never seen anyone do for 11 straight hours.”

- “Third mate Matt Morgan was invaluable providing lookout guidance from the bow in a calm, clear demeanor as *Green Lake* approached each survivor at slow/half ahead and they disappeared from sight. AB John Rawlings was on the wheel for 16 straight hours with minimal breaks and steered so true and so skillfully in the challenging wind conditions.”

- “Engine cadet Jeffery Attardi worked the bridge telegraph for a time and assisted in the engine room along with second assistant engineer Thomas Pollock, third engineer Maria Asuncion and oiler Mario Santos. *Green Lake* maneuvered for a very long time, and engine crew kept things together below and provided critical assistance at the bunker crane. Oiler Godofredo Banatao and utility mariner

Jolanta Goch provided blankets, food, clothes and yelled constant encouragement to the survivors in the water.”

- “Chief cook Jose Clotter was on the bridge holding a hand-held searchlight until sunrise. He and steward Peter Schuetz kept all fed well for five days en route to Honolulu. U.S. Merchant Marine Academy deck cadet Christopher Cashman became the ship triage medical officer and evaluated all survivors, and he responded accordingly in hypothermia cases. We had some serious medical issues with survivors at first and he did well with providing treatment.”

Since the event, Boyce has been an outspoken advocate for crew mental health issues at sea. He said vessel operator Seabulk and owner Waterman Transport Inc. have become proactive on the issue and invested in crew comforts and other resources critical to mariners' health while on land and at sea.

Casey Conley

load of vehicles bound for Vancouver, British Columbia. *Green Lake's* roundabout route to Canada stemmed from severe storms in the North Pacific, but it brought the ship within 47 miles of *Sincerity Ace* when the distress call went out at 2300. Boyce ordered his ship full speed ahead to the stricken vessel's last known position.

Green Lake reached that location about three hours after the distress call. Lookouts noticed life rings in the water and a strobe light blinking. As the ship got closer, crew

heard a whistle and then a voice calling for help. Without searchlights to illuminate the area, they aimed hand-held lights at the mariner while others coordinated the rescue from the pilot door roughly 10 feet above the water.

Conditions worsened during the ordeal, with winds gusting to 30 knots and waves reaching 25 feet. The man clung to the pilot ladder for nearly an hour before letting go. Boyce learned the man's fate from a deck officer who said, "Captain, he's gone."

That mariner was one of four who fell into the sea while trying to launch a lifeboat during a chaotic period after *Sincerity Ace* caught fire. *Green Lake* crewmembers spotted the lifeboat about 15 minutes after collectively regrouping from when the mariner drifted away.

Boyce guided his ship alongside the lifeboat and suddenly spotted someone inside. In a matter of seconds, the man leapt onto the pilot ladder and climbed on board *Green Lake*. This was the first of seven people Boyce and his crew would rescue.

CASUALTY BRIEFS

Mariner presumed dead after utility boat sinks near Port Aransas

A mariner is missing and presumed dead after a small utility boat sank near Port Aransas, Texas, with two men aboard.

The victim was working on *Cristi* when it sank Dec. 10 at 1030 in the La Quinta Channel roughly 100 yards north of Ingleside Point. A good Samaritan vessel rescued the second crewmember, who was not injured. It is not clear if either wore a personal flotation device at the time.

The Coast Guard is investigating the incident but has released few details. A Coast Guard representative in Houston described *Cristi* as a 25-by-12-foot utility vessel that supports maritime operations. The service did not release the name of the operator or say

what kind of work the vessel was performing.

Local, state and federal authorities spent more than 30 hours searching for the victim, who has not been identified.

Barge hit by another after grounding in Texas

Two barges grounded in the Intracoastal Waterway (ICW) near Corpus Christi, Texas, and less than a day later another tow struck one of the submerged barges inside the navigation channel, the Coast Guard said.

The towboat *Bill Baker* was traveling west on the ICW with two barges at about 0735 on Dec. 5 when the lead barge, 2304, carrying gravel, grounded on the east bank near mile marker 510.5, said Coast Guard Lt. Cmdr. Margaret

Brown of Air Station Corpus Christi. The second barge, 2026, carrying sand, sank on the west side of the ICW, also at mile marker 510.5 and within the navigation channel.

The following morning at 0436, the lead port-side barge in a six-barge string pushed by *Brown Water XIV*, traveling east in the ICW, struck the submerged sand barge from *Bill Baker*, Brown said. Barge *MTC 662*, carrying sugar, sustained damage to its bow void during the incident.

The gravel barge was refloated by Dec. 9, but the sand barge remained submerged. The damaged sugar barge also remained at the scene with an additional barge tied to it for stability, Brown said.

Additional details were not available. Attempts to reach *Brown Water Marine*, operator of *Brown*

Water XIV, and SRM Concrete, operator of *Bill Baker*, were not successful.

Eight crewmembers escape sinking tug on Outer Banks

The Coast Guard is investigating after a tugboat capsized in Oregon Inlet, N.C., during a severe storm.

Miss Bonnie rolled over and partially sank Nov. 17 at about 1110 near the Old Bonner Bridge. Authorities initially believed the tug hit a bridge support, although the subsequent investigation showed the vessel never made contact, the Coast Guard said. Eight crew escaped without injury.

Response crews deployed 2,500 feet of sorbent boom and another 1,600 feet of containment boom around the vessel, which had about 3,000 gallons of fuel

Green Lake remained in radio contact with *Sincerity Ace* throughout the ordeal. Conditions were increasingly dire. The remaining 17 crew huddled in the wheelhouse, where toxic smoke had made it hard to breathe. Cars exploded below deck, while metal on the boat deck was white-hot. Crew reported their survival suits melted as they crossed the deck, and smoke kept them from launching any more lifeboats or life rafts.

As conditions got worse, crew aboard *Sincerity Ace* left the wheel-

house for the forward end of the boat deck. They found a rope and lowered it to the water to escape as darkness lifted. As *Green Lake* came within a quarter-mile of the burning ship, the rescuers watched as several crew fell nearly 10 stories to the water. At about the same time, a U.S. Coast Guard HC-130 from Honolulu arrived overhead, dropping life rafts into the ocean.

Green Lake's crewmembers each played critical roles in the rescue. Under the guidance of chief mate Kevin Camarda, engineering crew

worked with the deck crew to jury-rig the bunker crane with a harness to lift *Sincerity Ace* mariners out of the water. Second mate Chelsea Martin worked the bridge telegraph, thruster, satellite phone and Coast Guard communications, all while keeping a detailed log. Third mate Matt Morgan served as a lookout as the hulking ship approached each survivor in the water.

Other crewmembers performed just as admirably, from the bridge crew to the cooks, who stepped up and continued to feed the crew

on board. An unknown amount escaped into the water.

Salvage crews raised *Miss Bonnie* on Nov. 21. Vessel operator PCL Construction, a contractor working on a nearby bridge project, did not respond to emails seeking comment.

Four airlifted after yacht floods near Puerto Rico

The Coast Guard hoisted four sailors to safety from an inflatable dinghy after the 80-foot yacht *Clam Chowder* flooded and partially sank 25 nautical miles northwest of Aguadilla, Puerto Rico.

En route from Florida to St. Kitts to deliver the yacht, the crew issued a VHF distress call Dec. 15 at 0522 heard by Coast Guard watch standers in San Juan. The caller reported *Clam Chowder's*

Coast Guard personnel oversee the salvage of the tugboat *Miss Bonnie* in Oregon Inlet, N.C., on Nov. 21. The vessel capsized during a storm four days earlier and spilled an unknown amount of diesel.



U.S. Coast Guard photo

stern was mostly underwater and that multiple pumps could not keep up with the flooding. The captain soon gave the abandonment order.

The 680-foot containership *Calais Trader* responded and diverted to the yacht's location. Crew aboard the Malta-flagged ship deployed a small boat and

remained nearby until Coast Guard aircraft arrived, said Ricardo Castrodad, a service spokesman in San Juan.

Personnel from Air Station Borinquen deployed in an MH-65 Dolphin helicopter that performed multiple hoists to rescue the four men, all in their 20s and 30s. One of the men lost a finger trying to

deploy the vessel's dinghy. All were wearing life jackets.

The Coast Guard later determined that a small door used to launch the small boat had opened unexpectedly, flooding crew spaces.

Clam Chowder remained partially afloat into Dec. 16, but its fate was not known at press time.

Casey Conley

GET YOUR USCG APPROVED TRAINING



OUPV 6-PAK Captain's License
Master 100 GRT
Master 200 GRT/500 GT (ITC)
Apprentice Mate Steersman
Able Seaman + Lifeboat
STCW Basic Training
Maritime Security Awareness
QMED Qualified Member of
Engineering Department
RFPNW w/ Nautis Simulator
Radar Observer Inland &
Ocean/Original & Recertification
ECDIS w/ Nautis Simulator

Free Bunks & Bread
In Mobile, AL

Ask Us About
Our Online
Courses!



SEASCHOOL.com
1-800-247-3080

washburn & doughty
Shipbuilders • Architects • Marine Engineers

Clayton Moran
93' x 38' ASD • 6000 HP
Designed & Built by
**Washburn & Doughty
Associates, Inc.**

PO Box 296, East Boothbay, Maine 04544
Phone: 207-633-6517 Fax: 207-633-7007
Email: info@washburndoughty.com
www.washburndoughty.com

Quality Craftsmanship in the Proud Maine Tradition



maritime casualties

and the survivors throughout the ordeal.

"It was rewarding to me as a captain to witness how every single person in the crew contributed and responded, where and when they were needed the most, with little direction from me," Boyce said. "The emotional trauma that the crew and particularly the survivors experienced was very real, as the highs and lows of that day really took a toll on all of us."

Boyce said the seven survivors all required medical attention. Some were hypothermic and others were severely traumatized. For instance, the cook aboard *Sincerity Ace* hit his head on the ship's bulbous bow after falling from the rope. He was nearly sucked into the propeller of another good Samaritan ship that attempted three times to rescue him before *Green Lake* intervened.

The rescue took nearly 18 hours to complete. Boyce and his crew were mentally and physically exhausted. *Green Lake* diverted to Honolulu, five days away, to drop off the *Sincerity Ace* survivors. Eight days after departing Hawaii, *Green Lake* arrived in Vancouver.

The rescue turned heads around the world. The IMO commendation cited the "exceptional seamanship, tenacity and leadership" of *Green Lake's* captain and crew during the rescue. U.S. Maritime Administrator Mark Buzby praised the crew, operator Seabulk and owner Waterman Transport Inc. during a recent ceremony in New York.

"*Green Lake* was there to respond in the time-honored tradition of

mariners coming to the aid of fellow mariners," Buzby said when presenting the Gallant Ship Citation and Merchant Marine Medals. "This American-trained crew highlights the professionalism and valor of our nation's mariners."

Boyce, who is nearing retirement, said the rescue will stay with him for the rest of his life. He said it highlighted the need for proper retrieval gear on vehicle carriers and container ships with high freeboard to rescue mariners during extreme conditions. Boyce also called for high-wattage, narrow-beam searchlights to be installed on the wings of all ships.

"Simulator training on maneuvering and bringing a large ship alongside a spent survivor in extreme sea conditions should be established," he said.

The incident and its aftermath also called attention to the lasting mental effects on mariners following a traumatic event. Boyce recalled struggling to help his crew as they worked through the emotional trauma. Seabulk and Waterman arranged for support and resources as the ship arrived in Vancouver, a step that Boyce said was "extremely helpful."

"I am now a firm believer of the importance and value of counseling, or at the very least talking through the events with someone off the ship," he said. "One rarely experiences trauma at sea, but when it happens, the need is real. So is the associated stigma of trying to hide one's true feelings and keep it inside."

Casey Conley

Bulker deck hand dies after fall from Indiana steel mill dock

A deck hand preparing to return home for the holidays died after falling into Lake Michigan while her ship was docked at a northwest Indiana steel mill.

Sara Murawski, 30, of Kinde, Mich., fell from the J dock at ArcelorMittal in Burns Harbor, Ind., and landed in the frigid water roughly 15 feet below. She was in the water for more than 45 minutes when divers rescued her.

“It appears she reached to get something over the dock wall and slipped and lost her footing and fell into the water,” Burns Harbor Fire Chief Bill Arney told *Professional Mariner*. “We do know she was leaving the boat to go home for the holidays as well.”

Arney said Murawski might have hit her head against the ship, the self-unloading bulk carrier *Wilfred Sykes*, as she fell. The Porter County Coroner’s Office has not released the cause of death, although the Indiana Department of Natural Resources (DNR) said it appears to have been an accidental drowning.

The Indiana DNR and ArcelorMittal are conducting separate investigations of the incident, which occurred at about 1545 on Dec. 9. The pier is located alongside the ArcelorMittal steel mill at the Port of Burns Harbor. An ArcelorMittal spokesman did not respond to multiple requests for comment.

Murawski had finished a

weeks-long hitch aboard the 678-foot bulk carrier when she departed the ship at Burns Harbor. Authorities said she was retrieving her belongings from the vessel when she fell from the dock. She was not wearing a personal flotation device, said Tyler Brock, spokesman for the Indiana DNR.

The berth is composed of concrete and metal plates and has no railing. Its surface was wet from rain earlier in the day, Brock said, and was covered in a fine powder that originated from the mill or from the process of loading vessels.

“We are not sure if she slipped or tripped or was leaning over the edge,” he said.

The berth is composed of concrete and metal plates and has no railing. Its surface was wet from rain earlier in the day, Brock said, and was covered in a fine powder that originated from the mill or from the process of loading vessels at the pier.

“There is an iron substance that coats the area (around the plant), and when it gets wet it

can be a little slippery,” Brock said. “The ground is covered in that stuff throughout the mill.”

People at the terminal and on board the ship witnessed Murawski’s fall. At least one person tried to rescue her but was unable to reach her before she went underwater. Divers located her body in about 32 feet of water, Arney said, adding that she was unresponsive when brought to the surface.

“Once we pulled her from the water, we immediately started to do CPR and life safety measures to try and revive her, and those continued all the way to the hospital and at the hospital for an extended period of time,” the fire chief said.

Murawski’s body temperature had fallen below 80 degrees when she arrived at Porter Regional Hospital in Valparaiso, Ind. She was pronounced dead later on Dec. 9.

The Indiana DNR has interviewed witnesses and others at the scene, Brock said. The investigation is centered on how she entered the water. The fall is not considered suspicious.

The U.S.-flagged *Wilfred Sykes* was built in 1950. It is operated by Central Marine Logistics of Griffith, Ind., and owned by Indiana Harbor Steamship Co., also based in Griffith. Messages seeking comment on the incident were not returned.

Casey Conley

Towboat fire leads to barge breakaway, captain's dismissal

Federal investigators attributed a fire that left a towboat and nine barges adrift in the Mississippi River — and indirectly spurred the captain's dismissal — to spraying lube oil that ignited on a hot engine surface.

The National Transportation Safety Board (NTSB) determined the fire aboard the 3,600-hp *Jacob Kyle Rusthoven* on Sept. 12, 2018, started on a starboard main engine turbocharger. The flames disabled the vessel's propulsion and steering systems, leaving the towboat and nine-barge tow adrift broadside to the current. All six crew escaped to good Samaritan vessels, but four were later treated for smoke inhalation. The vessel, valued at \$1.5 million, was a total loss.

While the cause of the fire was traced to a mechanical issue, the NTSB determined crew inaction allowed the fire to intensify and spread.

"Because the captain did not instruct the crew to activate the emergency fuel shutoff valves, and no one closed the main deck doors, the fire was able to spread rapidly," the agency said in its report. "Additionally, the vessel was not fitted with a means to secure supply and exhaust ventilation to the engine room."

Jacob Kyle Rusthoven, operated by Graestone Logistics of Murray, Ky., departed from a Tennessee River terminal on Sept. 8 with nine barges loaded with limestone. The vessels were sailing to Baptiste Collette



U.S. Coast Guard photo

Bayou, at the mouth of the Mississippi River, via the Ohio and Mississippi rivers.

The captain, who authorities did not identify, came off watch at about 0000 on Sept. 12, yet remained in the wheelhouse for almost three hours as the tow proceeded down the Mississippi River. He returned at 0530 for his scheduled watch as the vessel approached Tunica, Miss. At about 0800, part of the tow hit the riverbank near mile marker 688. River conditions were fast and rising.

"Entering Mhoon Bend, the captain attempted to flank the bend but lost control of the tow," the NTSB report said. "He then backed hard astern to stop the tow. Nonetheless, the head of the tow struck the bank, causing the tow's rigging to loosen. He maneuvered his vessel to regain control of the tow."

The captain continued downriver after contacting the riverbank. More than an hour later, the captain on

Smoke billows from *Jacob Kyle Rusthoven* after the towboat caught fire on the Mississippi River near West Helena, Ark., on Sept. 12, 2018. Failure by the crew to activate the fuel supply shutoffs and secure open doors ventilating the engine room contributed to the severity of the fire, according to the NTSB.

towboat *Bill Atkinson* alerted *Jacob Kyle Rusthoven* that the port corner of the center head barge was underwater. That same captain noticed *Jacob Kyle Rusthoven* and its tow were losing speed, and then he saw smoke coming from the open starboard engine room door as the vessels passed.

The pilot and mate aboard *Jacob Kyle Rusthoven*, both off watch, awoke to smoke and the sound of the engines "backing hard." By the time the pilot reached the wheelhouse, the vessel had already lost propulsion and steering. He told investigators the tow was adrift broadside to the current.

Firefighting efforts were limited.

The electric fire pump in the engine room was not working, and the hose for the portable pump was stored on the tow. One crewmember discharged a portable fire extinguisher into the engine space with modest effect. The captain ordered the crew to escape to the tow as conditions aboard the towboat worsened.

Towboats *Gabe Gattle* and *Bill Atkinson* dispatched skiffs to rescue *Jacob Kyle Rusthoven's* crew. They arrived not long before the towboat's stern struck the riverbank near West Helena, Ark. Moments later, the center head barge capsized and three other barges broke free. Towboats corralled the drifting barges and

pushed the burning towboat against the bank near mile marker 674.

Forensic investigators homed in on the Caterpillar D398 starboard main engine as the origin of the fire. They identified a loose fitting on a lube oil supply line as the fuel source, and suggested the atomized fuel likely landed on a hot engine surface and caught fire. The reason for the loose fitting could not be identified.

Jacob Kyle Rusthoven did not have a fixed fire-suppression system in the engine room, nor was it required to have one. The vessel also lacked safety equipment for crew to fight the fire, and the portable fire extin-

guisher was no match for the flames. Additionally, the NTSB found, "the vessel was not fitted with a means to secure supply and exhaust ventilation to the engine room."

Post-incident alcohol and drug screening showed the mate tested positive for codeine/morphine, while alcohol results were inconclusive for the mate and three other crew. The pilot tested negative for all substances. The captain refused to be tested, leading to his termination from a job started just two months earlier.

Graestone Logistics did not respond to a request for comment about the NTSB findings.

Casey Conley

Whether you're a USCG-licensed officer or you employ them, mariners face a host of risks that could trigger license Suspension and Revocation, costly legal expenses and compromise the ability to work.

For as little as \$1 a day, and without any service or processing fees, MOPS Marine License Insurance can protect mariners from potentially devastating consequences resulting from marine casualties and incidents.

Don't delay...get a fast and affordable group or individual coverage quote today!

800-782-8902 x3608
mopsmarinelicenseinsurance.com
Protecting mariners for over 80 years.



Whatever License You Hold, Whatever Waters You Sail...

You Need MOPS USCG License Protection!



INDEX TO ADVERTISERS

Page	Advertiser	Product
45	A3Pi Services LLC	Naval architect and engineering
45	Aiman Inc. Co.	Shaft alignment
11	Chafe-Pro	Chafe prevention gear
13	Chesapeake Marine Training Institute	Training and education
c2	Coleman/Stearns	Safety
45	Dann Ocean Towing	Employment and recruitment
39	Delgado Community College	Training and education
c4	Furuno USA	Electronics
13	Gladding-Hearn Shipbuilding	Shipyard
45	Hart Systems (Tank Tender)	Tank measurement
7	Icom America	Marine electronics and communications

Page	Advertiser	Product
9	Intercontinental Engineering	Winches
34	Latti & Anderson	Legal
17	Military Sealift Command (MSC)	Recruitment
33	MOPS	Licensing
43	NOAA	Recruitment
43	R.M. Young Co.	Weather instruments
30	Sea School	Training
11	SUNY Maritime	Training
30	Washburn & Doughty	Tug builder
34	Washington Chain	Towing gear



MARITIME INJURIES
LATTI & ANDERSON LLP
Call 800-392-6072
 to speak with Carolyn Latti or David Anderson

OVER 50 YEARS EXPERIENCE WORLDWIDE
Achieving multi-million dollar settlements and verdicts for officers and crew.
www.LattiAnderson.com
 FREE CONSULTATIONS NO RECOVERY - NO FEE



Terminate synthetic rope in minutes.

Introducing: The SRS Mammoth

Thinking about using synthetic rope in your industry? Already using synthetic rope, but struggling with finding effective termination solutions? The SRS Mammoth can be installed in the field in minutes.

The SRS Mammoth is here to provide a unique solution to synthetic rope terminations. The socket body protects rope from damage while allowing full strength of the rope to be utilized.

As experts in the marine industry, we have been manufacturing and innovating solutions to common problems throughout the industry for over 65 years.

Contact us today for additional information: 1-800-851-3429

See our instructional video at: wachain.com

Email for more info at: sales@wachain.com

NTSB: Master impaired when cruise ship hit mooring dolphins

Investigators say the master of a Japanese cruise ship was impaired by alcohol when the vessel struck mooring dolphins at a U.S. Navy fueling dock in Guam, causing nearly \$1 million in damage.

The incident happened at 2113 on Dec. 30, 2018, as the 547-foot *Nippon Maru* backed off a dock in Apra Harbor with 624 passengers and crew. The National Transportation Safety Board (NTSB) said the ship was in the process of spinning 180 degrees for outbound transit. As the maneuver unfolded, the master applied astern engine power despite the pilot's request for ahead propulsion.

Alcohol testing conducted five hours after the incident showed the master had a blood alcohol level of .071, although the NTSB noted it could have been higher at the time of the impact. The

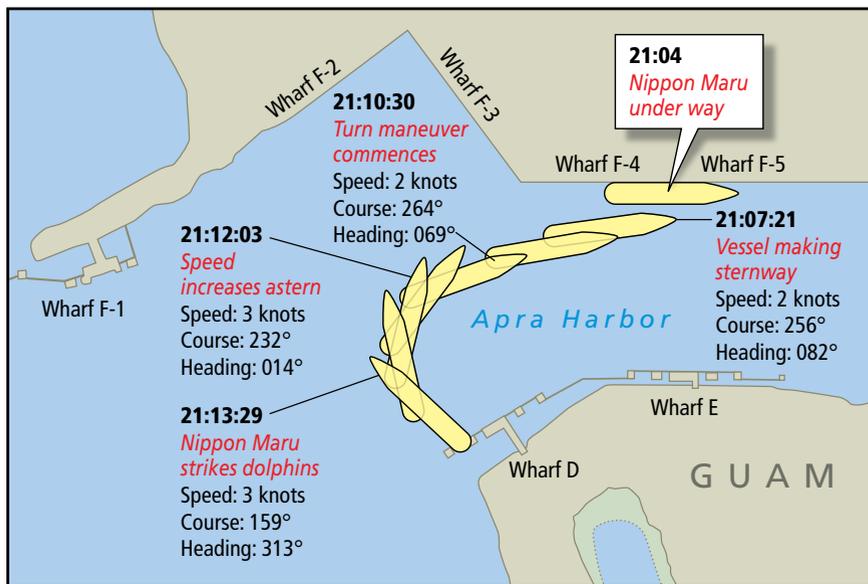
incident caused about \$456,000 in damage to the ship and more than \$500,000 in damage to the mooring dolphins.

"The master's errors in maneuvering the vessel were not consistent with his level of skill and experience — in particular, his experience with this vessel in this harbor — and suggest that he was impaired during the ves-

sel's voyage," the NTSB said in its report, citing alcohol impairment as the probable cause.

Nippon Maru arrived in Apra Harbor early on Dec. 30, and it was scheduled to leave that night for Saipan. The ship, berthed port side to wharves F-4 and F-5, was to back off the dock and spin 180 degrees to port with help from the 106-foot tugboat *Talo-*

Nippon Maru, shown in 2012 after being remodeled, was attempting to leave Apra Harbor in Guam when it hit mooring dolphins at a U.S. Navy facility. An NTSB timeline constructed from AIS data details the path of the ship.



fofo and the cruise ship's 2,000-hp bow thruster.

The pilot, based in Guam since the early 1990s, boarded the ship at about 2050 and awaited the master's arrival in the bridge. The two did not conduct the master-pilot exchange required under *Nippon Maru's* safety management system, the NTSB said.

The backing maneuver began at 2057 with the master at the conn and the ship's controls transferred to the port bridge

wing. The tugboat and thruster combined to ease the ship off the dock, and with about 60 feet separating the ship from the dock, the pilot ordered the thruster and tug to stop. He ordered the engines to slow astern.

“The pilot stated that the master did not verbally respond to his orders, but based on the movement of the vessel, he assessed that the master was complying,” the NTSB said. “At 2106, the vessel began moving astern, making about 2 knots astern a minute later.”

The ship then began turning to port with the tug assist. The pilot noticed the ship moving roughly 2 knots astern and ordered the ship dead slow ahead with its rudders hard to port to arrest the astern motion. At about this time, the master claimed he lost his sense of orientation and placed the engine control joystick into the astern position.

Soon afterward, lookouts reported *Nippon Maru* was approaching mooring dolphins at the Navy’s D wharf across the harbor from wharves F-4 and F-5. The pilot sought more power from *Talofofa*. He also ordered the cruise ship’s engines half ahead. The master appeared to respond, although the pilot could not see the controls to know for sure.

“At 2112:59, the third officer was recorded on the vessel’s voyage data recorder (VDR) telling the master in Japanese that the joystick was now full

astern,” the report said, noting the ship was moving astern at 3 knots. “At 2113:17, the third officer again warned the master in Japanese that the joystick was at full astern. Two seconds later, the second officer reported that the *Nippon Maru* had hit an oil boom that surrounded the D wharf. Four seconds after that, the third officer yelled in English, ‘Ahead! Ahead!’”

At 2113:29, the stern of *Nippon Maru* struck two of D wharf’s mooring dolphins. At about the same time, the third officer tried to physically move the joystick into the ahead position, but the master immediately placed it back into the astern position.

The second officer reported the contact with the dolphins to the bridge, and the ship returned to its previous berth under its own power. *Nippon Maru* was holed in its starboard stern and sustained a gash in the port-side stern. Both of the concrete dolphins were damaged, and a catwalk between them was destroyed.

The pilot said that as he prepared to leave the ship, he smelled alcohol on the master’s breath. The master told Japanese authorities he drank one and a half pre-mixed whiskey and soda cocktails between 1700 and 1800 on the day of the incident, despite company policy requiring that crew abstain from alcohol within four hours of their watch. He also claimed to have con-

sumed a beer between 2300 and 2400 after the incident. Investigators suggested the master consumed more alcohol than he admitted.

The NTSB also highlighted other issues preceding the incident, including the crew’s use of Japanese in the minutes leading up to it. The third officer’s admonitions to the master about the propulsion setting, for instance, were in Japanese, which the pilot did not understand. The master also did not verbally comply with the pilot’s orders.

The report stated that the power imbalance between the master and third officer and their apparently rocky relationship also might have contributed to the incident. This scenario, known as the “power distance,” might explain why the master ignored the officer’s suggestion to correct the engine order to ahead, the NTSB said.

“The third officer was the most junior deck officer on the ship, with only a fraction of the master’s seagoing experience,” the report said. “Additionally, he stated that his relationship with the master was poor, and the master refused to be briefed by the third officer prior to getting underway.”

Mitsui OSK Passenger Line of Tokyo operates *Nippon Maru*, which has since undergone repairs. Attempts to reach the company for comment on the NTSB report were not successful.

Casey Conley

ATB hits OSV that had turned broadside in Port Arthur channel

Roughly 3,000 gallons of marine diesel spilled from an offshore supply vessel following a collision with an articulated tug-barge near Sabine Pass, Texas.

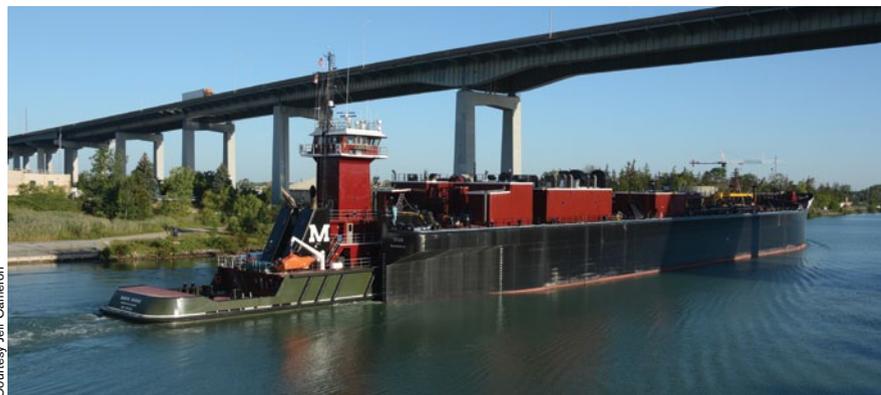
The collision between the ATB *Mariya Moran*/Texas with the OSV *Cheremie Bo Truc 22* occurred at about 0400 on Nov. 14 roughly 1.5 miles inside the Port Arthur jetty channel. Coast Guard spokesman Tyler Otabara said *Cheremie Bo Truc 22* was broadside to the channel just before the collision. There were no injuries reported.

“The OSV, since it is smaller, has a little more maneuverability within the channel,” said Otabara, who is also an investigator with Marine Safety Unit Port Arthur. “They were able to turn and maneuver in such a way that they ended up sideways to the channel, and that is when they ended up colliding” with the ATB.

Otabara said his office is trying to determine why the OSV ended up in the ATB’s path. The National Transportation Safety Board also is investigating the incident.

The 6,000-hp *Mariya Moran* and 161,000-barrel petroleum barge *Texas* were inbound within the Port Arthur jetty channel when they approached the outbound *Cheremie Bo Truc 22*. The two vessels had some radio contact before the collision, according to the Coast Guard, which is trying to piece together those communications.

As the two vessels prepared to



Courtesy Jeff Cameron

meet within the channel, the 180-foot *Cheremie Bo Truc 22* ended up in the ATB’s path. Otabara said it is unusual but not unprecedented for vessels to turn around in the channel. It is not clear if that is what the OSV was doing at the time. The ATB crew had little warning and was not able to avoid the collision.

“From what we understand it all happened pretty quick, and so as far as we know there was minimal evasive action other than backing down,” Otabara said of the ATB crew.

Texas struck *Cheremie Bo Truc 22* on its port side, roughly amidships, breaching the OSV’s hull above and below the waterline. At least one fuel tank also breached, allowing an estimated 3,000 gallons of diesel to enter the waterway. *Texas* did not breach, although it did sustain minor hull damage, the Coast Guard said. The ATB was traveling lightship at the time.

The OSV remained anchored outside the navigation channel while oil spill response teams

Mariya Moran guides *Texas* downbound in the Welland Canal at St. Catharines, Ontario, after delivery in July 2015. A Coast Guard spokesman said the ATB crew had little warning and was not able to avoid a collision with an OSV last November near Sabine Pass.

placed boom around the vessel and applied sorbents to remove fuel at the surface. It’s not clear how much fuel crews recovered through these efforts. *Cheremie Bo Truc 22* transited under its own power, with a tugboat escort, to a nearby dock a day after the collision.

AIS data shows both vessels had departed the Sabine Pass region less than two weeks later. It’s not clear what repairs *Cheremie Bo Truc 22* underwent before departure. The Coast Guard referred additional questions about vessel damage to the respective operators.

L&M Botruc Rental of Galliano, La., owner and operator of the 2,000-hp, 44-year-old OSV, did not respond to a request for comment. Moran Towing, owner of the 4-year-old ATB, declined to comment, citing the ongoing investigation.

Casey Conley

Correspondence

by Sean Murphy and Adam Boesen

Emergency management: Have you planned for your next crisis?

In September, a fire on the dive boat *Conception* killed 34 people; a preliminary federal investigation found that the entire crew was asleep when the fire began. In October 2015, *El Faro*, a U.S.-

these crises. That's job one if you want to handle a future crisis effectively. The fact is, all companies are in a state of pre-crisis, and it's precisely the time to analyze operations, envision what could go

protecting your company's reputation and value.

In public statements, the owners of *Conception*, *Carnival Fantasy* and *El Faro* reacted in ways worth studying. Each crisis offers shipowners a

the Limitation of Liability Act. Some pundits condemned the move as disrespectful to the families of the deceased; the filing might be seen as forcing people to take a legal position before they could bury a relative. But there was another side to the story that could have been more effectively communicated: An owner often takes this step to be a responsible company steward.

The takeaway for owners: As part of the statement made to the media about the filing, the owners could have reframed the lawsuit as the beginning of a formal and fair investigative process into what was a terrible loss of life. That's because a lawsuit kicks off a discovery period. It's not disingenuous to publicly position this action as launching what all concerned want to know: How did this happen, what can be done, and how do we prevent it in the future?



John Lawrence, left, manager of safety and operations for TOTE Services, testifies before the Coast Guard's *El Faro* Marine Board of Investigation in February 2016. The authors say TOTE's statement after the board released its report "seems like a missed opportunity" because the company did not identify specific actions it could take to make seafaring safer.

U.S. Coast Guard photo

flagged cargo ship with an experienced captain, sank amid Hurricane Joaquin in 20- to 30-foot seas. All 33 people aboard died. Last August, an inspection by the Centers for Disease Control and Prevention (CDC) aboard *Carnival Fantasy* earned the vessel the worst sanitation grade in the cruise line's history. Imagine facing one of

wrong and plan how you would respond. Managing a crisis demands that leaders exercise the wisdom to not jump to conclusions, as well as have the courage to focus on how things can be better in the future. Threading this needle can be difficult, especially in today's fast-moving social media world. Strong leadership is the key to

lesson in the importance of planning and giving your best response from the outset. For shipowners and operators in pre-crisis, here are several takeaways.

Make the crisis about truth

After the *Conception* fire, the Associated Press reported that the owners filed a lawsuit under

Take the leading role in your story

In the days after *El Faro* sank, shipowner TOTE Maritime said the captain sailed with a sound plan, and the company blamed the sinking on engine failure. After a victim's family filed a \$100 million lawsuit, TOTE declined to discuss the suit but said the company was "fully focused on supporting the families and their loved ones." TOTE went on to create a relief fund for the families, but despite its actions, victims' attorneys shaped the litigation narrative.

After a two-year investigation aided by the vessel's recovered voyage data recorder, the Coast Guard's Marine Board of Investigation concluded that TOTE had inadequate shoreside operational support and a lack of tools and processes for accurate weather observations. Reporting also indicated the ship's captain and officers used inaccurate storm predictions and left port without a fully functioning anemometer. TOTE acknowledged the Coast Guard report with a statement: "*El Faro* and its crew were lost on our watch and for this we will be eternally sorry. ...

The report details industry practices which need change. We are committed to working with every stakeholder on these comments and recommendations."

The takeaway for owners: TOTE's statement in the wake of the Coast Guard findings seems like a missed opportunity. The release of the report opened the door for identifying specific actions the company could take. Instead, the company offered to study the recommendations and work with stakeholders on possibly implementing them as part of an industry solution. And while TOTE's expression of sorrow and support of the victims' families was decent and humane, it possibly rang hollow because — at least initially — there weren't enough specifics on how TOTE planned to make seafaring safer.

Set context and a new course

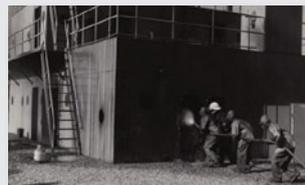
Media coverage about the CDC report on *Carnival Fantasy* stated that bagels and bread offered to passengers attracted "not less than 15 small flies," and sushi was prepared on inappropriate surfaces.

MARAD Training Facility in NOLA Transformed by Delgado

On October 18, 2019 MARAD Administrator Rear Admiral Mark Buzby USN (Ret) visited the new Maritime and Industrial Training Center (MITC) at Delgado Community College in

the training they need to add skills and progress through the different levels to become a member of the wheelhouse or engine room crew.

Founded in 1912 as the Delgado Central Trades School, DCC will



OLD

New Orleans. He was invited to view a remarkable transformation. Today, to look at this sleek 19,000 ft² world class facility it is hard to imagine that it started as a one-room training program that MARAD built in the 1970s in far eastern New Orleans. The original, corrugated metal building with one fire ship propeller known as "the hell hole" — once trained perhaps ten mariners in fire suppression each week. When Delgado Community College (DCC) acquired the original fire training facility from MARAD, it committed itself to the mission of educating future mariners and supporting the vital role of maritime operations at one of the nation's busiest waterways.

Now, MITC consists of a twelve-classroom, multimillion dollar facility staffed by 38 personnel who offer 70 courses to industry personnel from small and large companies all over the world. Another measure of its growth? The Louisiana Community and Technical College System just awarded DCC with an \$894,533 grant. This grant will subsidize discounted training for over 20 courses at all levels of maritime careers, taking a student from early career as deckhand and gain



NEW

celebrate its centennial in 2021 as the oldest and largest community college in Louisiana whose enrollment is second only to Louisiana State University. DCC has excelled at not only offering a two-year degree, but also specializing in certifications taught in customized, short modules that gain or refresh skill sets for an entire career.

Although MITC still leads the nation in maritime and industrial firefighting (the first in the region to offer a USCG approved virtual reality advanced firefighting course), its programming has expanded exponentially since DCC acquired it. MITC now boasts three state-of-the-art simulators that challenge students with maritime training scenarios based on real incidents.

Senior Director Rick Schwab explained, "We customize training to meet the needs of employers. This means providing aspiring students or industry personnel who wish to advance their career further with USCG-approved training in Fire Fighting, Radar, Safety, and any other skills that are needed—from deckhands to captains and tanker-men to steerman."

This past year, DCC expanded its campus, its educational offerings, and ultimately its workforce development impact on maritime industries, by opening a River City campus.

Delgado
COMMUNITY COLLEGE

SPONSORED CONTENT

Water came out the color of sludge. One crewmember was found to have symptoms of acute gastroenteritis.

The problem for *Carnival Fantasy* wasn't the first for the ship, the cruise line or the industry. An NBC News online opinion piece in August written by a professor of epidemiology stated, "What I see when contemplating such an excursion is the potential to be trapped with thousands of others in a confined space, suffering from gastrointestinal ailments like norovirus and E. coli."

In a case like this, allowing conditions to persist and failing to put a crisis in context is charting a course for a bad outcome, potentially threatening an industry.

The takeaway for owners: Travelers want to know the owners of *Carnival Fantasy* can return the ship to cleanliness and fun and, by extension, that the cruise line industry is safe. In 1982, Johnson & Johnson took the unparalleled response of removing Tylenol from stores after a series of poisoning deaths from drug tampering. Johnson & Johnson received praise for its honesty with the public and cooperation with authorities, which

gave it a role in searching for the person who laced the Tylenol capsules. Could a shipowner publicly address a damning CDC report by taking a vessel out of service to sanitize it from stem to stern to win the public's trust? An action like that could reinforce that what occurred on *Carnival Fantasy* is an isolated situation, while reminding the public that tens of millions have traveled safely on cruises for years. Charting a new course might mean bearing the cost of extraordinary measures to win public trust.

Planning in pre-crisis

In a crisis, there is enormous pressure to answer four questions:

- How did this happen?
- Who's to blame?
- Is it going to happen again?
- What can be done to prevent this in the future?

Answering the first question can be as simple as, "We don't know yet. We will find out." But some leaders abdicate their role in managing the story by saying nothing, responding mechanically, or adopting one of the following approaches:

Common mistake No. 1: Relying solely on a legal team as your bulwark.

Pursuing a version of the first option could help a trial strategy, setting the right legal tone from the outset. But if it's seen as stonewalling, this strategy is likely to backfire. The better option is to align communications aimed at the court of public opinion with trial strategy.

Common mistake No. 2: Shifting blame reactively.

While blame-shifting might work for politicians, that tactic often creates more questions. For example, assume a shipowner taps a captain as the bad actor in a crisis. The company would then have to address its hiring practices, training, procedures and standards. After the firing, what about tomorrow and the next captain? And what if a company is found to be wrong in shifting blame, including by scapegoating one of its own people?

Common mistake No. 3: Delivering a tactical mea culpa.

There's a difference between accepting fault for the cause and taking responsibility for the outcome. In trying to do the right thing, a well-intentioned owner may offer such a broad apology that the public thinks the company is at fault. A shipowner can

accept responsibility while clearly establishing that the company will sort out what went wrong and take action before assigning fault.

Uncommon wisdom: Semper paratus

What's a shipowner to do about the reality of living in pre-crisis? Bring together experts in operations, law and communications. Develop scenarios for what could go wrong. Conduct exercises to identify where the holes are in terms of talent, tools and technology. As the team fills the holes, build a plan and run drills for coordinating and delivering your message. Test your crisis communications plan and team as you would test a crew and its abilities.

Every crisis is unique, but shipowners can and should prepare. Identify your most likely crisis scenarios, develop a communications plan, rehearse a quick and effective response, and be ready with a narrative that assures your audiences of a just outcome. •

Sean Murphy and Adam Boesen lead the crisis and litigation communications practice for Texas-based Courtroom Sciences Inc.

— Thank you — to our sponsors.

The Maine and Massachusetts Maritime Academies along with SUNY Maritime College hosted a **State Maritime Academy Reception** at the International WorkBoat Show. Thank you to the following generous sponsors who provided support for this annual meeting of alumni and friends.

Flagship Management | Hamilton Marine Inc. | American United Marine Corporation | Capt. Sherri Hickman, Maine '85 | L&R Midland Ryan Smith, Maine '00 | Portland Tugboat, LLC | Jon Wing, Maine '74 Capt. Scott Driscoll, Maine '01 | McNabb Marketing Resources, Inc. Mobile Bar Pilots | NOBRA | O'Hara Corporation | McAlear Maritime Strategies, LLC | Penobscot Bay Tractor Tug Co. | Professional Mariner

MAINE
MARITIME
ACADEMY



MARITIME COLLEGE
STATE UNIVERSITY OF NEW YORK





Courtesy Wikimedia

Rise of BNWAS adds to concerns over alarm fatigue

by Alan R. Earls

Beeps, buzzes and flashing lights are an increasingly common soundtrack for life on the bridge of any modern vessel. Although intended to make operations safer and provide a backup to human judgment, bridge navigational watch alarm systems (BNWAS) have added to concerns about alert overload and response fatigue among mariners.

Initially for larger vessels in global service, International Maritime Organization (IMO) requirements for BNWAS went into effect under

the Safety of Life at Sea (SOLAS) convention in 2011. More recently, U.S. Coast Guard Subchapter M rules added similar requirements for operators of vessels with overnight accommodations and alternating watches when pulling, pushing or hauling, known as pilothouse alerter systems.

But all that technology is making some wonder if it is a case of the law of diminishing returns. At the very least, there seem to be doubts about how mariners are reacting.

“Regarding bridge navigational watch alarm systems, it is unlikely that the towing industry has much data regarding their usage at this point in time,” Brian Bailey, director of safety and environmental stewardship for the American Waterways Operators (AWO), told *Professional Mariner* in November.

A recent survey by a London-based insurance group found that 90 percent of respondents – nearly half of them masters and other ship officers, on vessels ranging from dredgers to pleasure craft – said false alarms were a problem for their crews.

That's mostly because under Subchapter M, existing towing vessels more than 65 feet in length are not required to have pilothouse alerter equipment until at least five years after the issuance of the vessel's first certificate of inspection (COI).

However, Bailey said the frequent sounding of BNWAS alarms — designed to signal attention lapses in the wheelhouse — contribute to alarm fatigue among mariners keeping watch, especially when the notifications are misleading or false.

“A modern wheelhouse is already a highly technical location on board the vessel, with many sounds, all with the potential to distract the

“If false alarms are not addressed in a timely manner or are deemed necessary even though they are frequent and unactionable, mariners may be tempted to minimize the volume of the alarm or even shut the equipment off.”

Capt. Tamara Burback, California Maritime Academy

pilot from his main task at hand,” he said. “So many alarms, denoting differing risks, problems or conditions, can be confusing and not easily decipherable.”

As a result, Bailey said the AWO plans to monitor this issue as more

data becomes available from its member companies.

“Alarm fatigue is a serious concern for watch-standing mariners,” said Capt. Tamara Burback, assistant professor in the Marine Transportation Department at California



National Oceanic and Atmospheric Administration



NOAA is the premiere scientific agency of the Federal Government. We offer a variety of seagoing positions aboard our fleet of scientific research and survey vessels. As a

Federal employee for the Department of Commerce, you will be eligible for Federal benefits, paid training, excellent pay and job security. Work for NOAA as a Wage Mariner, your career will have an endless horizon.

Engineering, Deck, Steward, and Survey opportunities are available.

Discover more at www.oma.noaa.gov

Email: moc.recruiting@noaa.gov

Send resumes to: wmapplicants@noaa.gov

Phone: (757) 441-6844 Fax: (757)-441-6495

NOAA is an equal opportunity employer and a drug-free workplace

EVERYWHERE THERE'S WEATHER

Sensors to Measure:

- Relative Humidity
- Pressure
- Precipitation
- Visibility
- Temperature
- Wind



WWW.YOUNGUSA.COM

YOUNG

Maritime Academy. “Coupled with the normal fatigue of daily operations and feeling disconnected from loved ones, alarm fatigue presents a risk that the entire industry should take seriously.”

Unfortunately, with so many electronic systems on the bridge, there is often at least one piece of equipment that is emitting a persistent alarm, Burback said. Usually the most that a vessel operator can do is put in a service request for the next port of call, and in the meantime either learn to live with the alarm or continue to silence it. However, if the alarm does not reflect a major equipment malfunction, it may not be prioritized as highly as other vessel repairs, which means the problem tends to persist, she said.

Nor is there any particular culprit. According to Burback, there is no single piece of bridge equipment that emits more false or non-emergency alarms than other equipment, though attention has often focused on the GMDSS console and more recently ECDIS, water ingress systems, depth sounder, speed log and BNWAS.

“If false alarms are not addressed in a timely manner or are deemed necessary even though they are frequent and unactionable, mariners may be tempted to minimize the volume of the alarm or even shut the equipment off,” Burback said.

The Shipowners’ Club, a London-based protection and indemnity (P&I) insurer, recently teamed up with the Department



Dom Yanchunas photo

of Psychology at Royal Holloway, University of London, to conduct a survey on the ways in which alarms affect mariners and ship operations. Almost half of the respondents were masters, followed in frequency by second officers and chief officers. They hailed from vessels ranging from dredgers to pleasure craft, but the top three categories were LPG/LNG transporters, passenger vessels and general cargo vessels.

As to whether false alarms represented a problem, nearly 90 percent said yes. A majority also indicated that they found it difficult to determine when alarms were false and when they were not. Respondents also said it was difficult to distinguish between different types of alarms.

Professor Polly Dalton at Royal Holloway said research has identified a phenomenon known as the “cry wolf effect,” which suggests

Capt. Larry Sullivan makes an adjustment to the Furuno BNWAS unit on the tugboat *Emily Anne McAllister* in 2013. Although not required for towing vessels at the time, BNWAS had been added to the wheelhouse during the boat’s five-year overhaul.

that as the rate of false alarms increases, the less likely a person is to respond. “The general advice is to reduce false alarms as far as possible, but this must be balanced against the risk of the system failing to generate an alert when one is necessary, so these are complex issues,” she said.

Burback said fatigue is dangerous in all forms because “it mutes our sensitivity to what may potentially be the only early warning signs of an impending danger or catastrophe.” Thus, when mariners are told to “just ignore that one,” or that a specific piece of bridge equipment “has always alarmed,” they will likely continue to pass along that information and little will be done

to solve the problem. Once alarms become something to be continually ignored, it makes sense that the risk of ignoring serious alarms increases, she said.

According to Bill Haynes, deep-sea product manager at Furuno USA, alarm fatigue should be examined as two separate topics: BNWAS, and then bridge alarms and nuisance alarms. "Both make noise and could cause distractions, but they are different as far as what they are designed to accomplish," he said.

Before BNWAS, an operator alone on the bridge could fall asleep or become incapacitated due to a

“Crew fatigue or health-related incapacitation is a reality of life at sea. BNWAS helps prevent disasters from occurring as a result.”

Bill Haynes, Furuno USA

health issue and nobody aboard the vessel would know or be alerted until it was too late. Haynes said a quick Internet search reveals dozens

of incidents involving operators who fell asleep, or incidents that occurred while BNWAS was shut off.

"There is really no disputing that BNWAS has saved lives and property worldwide," he said. "Crew fatigue or health-related incapacitation is a reality of life at sea. BNWAS helps prevent disasters from occurring as a result."

Haynes said there are many ways to make sure that BNWAS does not become a nuisance, adding that many vessel managers have found functionally appropriate ways of ensuring that their BNWAS correctly monitors operator activity. For example, infrared motion sen-

AIMAN ALIGNMENT



3D INSPECTION, AND ALIGNMENT OF MACHINERY AND HULLS USING LASER TRACKERS, CMM ARMS, TOTAL STATIONS, 3D PHOTOGRAMMETRY, STRAIN GAUGES, OPTICAL TOOLING SPECIALIZING IN PRECISION IN PLACE FIELD MACHINING

PH. 813-715-4600 sales@aimanalignment3d.com



Dann Ocean Towing, Inc.

WHEELHOUSE

DANN OCEAN TOWING IN TAMPA
HIRING WHEELHOUSE WITH A
MINIMUM OF 200T LICENSE+TOWING
ENDORSEMENT NY & ALSO DREDGE/
DUMP SCOW HANDLING EXPERI-
ENCE A PLUS COMPETITIVE DAY
RATES + BENEFITS + PAID TRAVEL
(813) 251-5100



World Travel & Adventures
of a Ship's Marine Surveyor

How to Get Dirty and Still Be Treated With Respect

FIND A COPY ON AMAZON BOOKS

(Search for Bob Ojala)

Available in color, b/w and Kindle versions

Robert (Bob) Ojala *Naval Architect/Marine Surveyor*
Cell: 1 (708) 903-6289
Email: bobojala@sbcglobal.net • www.a3pi.com

TANK TENDER

THE ORIGINAL PRECISION
TANK MEASURING SYSTEM!

Accurate tank soundings have never been easier when one TANK TENDER monitors up to ten fuel and water tanks. Reliable non-electric and easy to install.

www.thetanktender.com



HART SYSTEMS, INC.

(253) 858-8481 Fax: (253) 858-8486



sors can monitor the bridge and reset the timer whenever movement is detected. Radars, ECDIS and operator-initiated steering systems also can send reset signals to BNWAS when operated to further decrease false alarms and bridge distractions.

“If none of these operator-initiated actions are detected, then — and only then — the BNWAS first sounds an alert on the bridge,” he said. “If it is not reset within a reasonable amount of time, alarms are sounded in crew quarters and spaces.”

Haynes said nuisance alarms occur when the source of the alarm

is either not understood or when something like a sensor is broken. One good example of a misunderstood alarm is the ECDIS safety contour alarm, which is an alarm required by recently adopted performance standards (IEC 61174-4). If a vessel using ECDIS with an electronic navigation chart (ENC) happens to be in waters with a depth shallower than the value set in the safety contour box, then an alarm will sound. Haynes said in many instances that has created a huge distraction for bridge teams, as they didn't know where to go to correct the issue — though it is described in operator guides and manuals.

The solution often can be very simple: refreshed training and familiarization. Eventually, with support and education, operators began understanding the purpose of these alarms, and ECDIS became a more useful tool instead of a nuisance and distraction, Haynes said.

“It remains our strong recommendation to any shipping company that fits a new system like a radar, ECDIS or other mandatory bridge equipment to demand and schedule appropriate operator familiarization training so that the bridge team understands operation, including alarms, before the vessel gets underway,” he said. •



Sign up today

Professional Mariner e-newsletters provide all you need to know to stay informed about regulations, casualties, legislation, and technologies.

GO TO www.professionalmariner.com/newsletter/

continued from page 48

and reports written by hacks who say just what the organization wants; the statements are then quoted as factual and used unremittingly to attack our livelihood and way of life.

Our adversaries inside the government also never rest in their quest to undermine the U.S. merchant marine. The current administration has proposed budget cuts of hundreds of millions of dollars to maritime programs, including the Maritime Security Program. After a condemnatory article published by the Heritage Foundation, in 2017 this administration also withdrew its proposal that 100 percent of U.S. foreign food aid be carried on U.S.-flag ships, caving in to political pressure and reducing it back down to 50 percent. Reversing a decision made under the Obama administration, Customs and Border Protection in 2019 bowed to our political opponents and nixed a proposal that would have prohibited foreign-flag vessels from delivering oil field equipment to and from rigs working in our domestic waters. These decisions alone have cost U.S. merchant mariners thousands of jobs.

It was a family member who gave me advice on how to fight back against all the attempts to undermine our merchant marine. For over 20 years, Bruce Sweeney served in the Idaho Legislature, his district including the state's only ocean-connected port. An amateur sailor and nautical aficionado, I'd just paid

off a chemical tanker when he invited me to lunch with him on his 60-foot yacht moored in Seattle's Lake Union. We talked for a while about life at sea, and of my recently published book. Then I asked his opinion on how to deal with another anti-Jones Act push by Quartel that had me concerned. Bruce replied, "You already give money to pro-merchant marine political action groups, so the next steps are call-

I had to admit that until that day, it had never dawned on me that we actually had enemies who were dead set on destroying our domestic merchant marine and the laws that protect it.

ing and writing letters to your elected officials, getting the truth out when talking to friends and colleagues, writing letters to the editor, and going to meetings and events. Politicians figure that for every letter or call they get, or for every person who speaks up at a meeting, there are many others who think the same way. That's why you mariners have to get involved. If people never hear the positive side of the Jones Act and U.S. merchant marine, your detractors automatically win."

Bruce's political insight convinced me to use every opportunity I've been given to push my pro-

Jones Act/U.S. merchant marine views as a professional mariner. That includes hundreds of radio interviews and TV appearances, being quoted in papers including the *San Francisco Chronicle* to *The Washington Post*, and speaking at industry functions ranging from the Propeller Club and Navy League to the North American Short Sea Shipping Conference in Vancouver, British Columbia. I've stirred the pot at meetings and protests, and most recently went online to a government website and posted my views regarding U.S. maritime laws.

These attacks against the Jones Act and the U.S. merchant marine have happened, and are continuing to happen, for one major reason: so shipping companies can have smaller crews, pay their mariners less, and operate ships not under the expert regulatory supervision of the U.S. Coast Guard. In other words, our enemies want to kill the U.S. merchant marine, cut tens of thousands of U.S. citizens out of jobs, skirt our national security laws, and operate substandard ships in our waters — all so they can make a few more bucks at our country's expense. It is up to us to do all we can to stop them.

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.

A Mariner's Notebook

by Capt. Kelly Sweeney

To save the Jones Act, know your enemies – and fight back

Just before graduation from California Maritime Academy, I had the chance to be in the audience for a debate on the Merchant

Marine Act of 1920 (Jones Act) held during an industry symposium at the school. My blood

boiled as I listened to a slick-talking shipping company vice president — attired in what looked like a very expensive Brooks Brothers suit — call for the destruction of the Jones Act, which would then allow replacing the U.S.-flag merchant fleet with foreign-registered ships. Afterward, an engineer friend and I were walking back to the dorms, with me complaining about the hatchet job we'd just witnessed. Joe, normally quiet and reserved, sud-

denly exclaimed, "I agree, Kelly, listening to that glorified car salesman's baloney drove me nuts, too. At least one good thing came out of it, though." I replied, "Yeah, what's that?" He answered, "Now we know more about who our enemies are, how they think and what kind of propaganda they're putting out."

Knowing your enemy has been a cornerstone of strategy for thousands of years. I had to admit that until that day, it had never dawned on me that we actually had enemies who were dead set on destroying our domestic merchant marine and the laws that protect it. After watching that debate, and seeing that corporate spin master in action, I was naive no longer — and vowed to keep an eye and ear out for those who would threaten the livelihood of U.S. merchant mariners.

Over the years, I've observed a number of individuals in positions of power who have shown themselves to be our enemies. Two who come to mind are the late Sen. John McCain, a Republican from Arizona, and John Carroll, the former Republican state senator from Hawaii who recently made a run for mayor of Honolulu. Both called for the elimination of the Jones Act. Perhaps the most persistent anti-Jones Act politician is Rob Quartel. Nominated by Republican President George H.W. Bush, Quartel was a member of the Federal Maritime Commission (FMC) from 1990 to 1992. After Bush lost his re-election bid, Quartel left the FMC and in 1995 became a founding member of the Jones Act Reform Coalition — an organization with a stated purpose of destroying the Jones Act and replacing the

U.S.-flag fleet with foreign ships. Completely ignoring the threat of a terrorist on a foreign vessel working in our waters, Quartel said publicly in 2018 that he sees no increased security risk from replacing U.S.-flag ships with foreign-flag ones on our inland rivers and waterways.

There are also powerful organizations throwing shade on the U.S. merchant marine today, such as the Federalist Society and the Heritage Foundation. These privately funded conservative organizations seek to influence judges, politicians and the general public to see things their way — which, when it comes to the U.S. merchant marine, means eliminating the Jones Act. Even more sinister is the Cato Institute founded by the billionaire Koch brothers. It funds bogus anti-Jones Act studies

continued on page 47



PROFESSIONAL MARINER

JOURNAL OF THE MARITIME INDUSTRY

Take control

Professional Mariner provides all you need to know to stay informed about regulations, casualties, legislation, and technologies to take your career to the next level.

Subscribe Today www.professionalmariner.com/Subscribe/



SIMPLE ISN'T ALWAYS EASY...

BUT FURUNO RADARS ARE A SIMPLE CHOICE

Your objective is simple...Deliver your vessel and its contents safely and on time. While it might sound simple, we know it's not easy!

Whether you're navigating the open ocean, busy harbors, or through congested inland waterways, being aware of your surroundings is paramount. Your number one line of defense is a Radar you can rely on, from a company you can depend on. Furuno's award winning Radar technology is built to perform and withstand the harshest environments, keeping you, your crew and your precious cargo safe. With unique application features like ACE (Automatic Clutter Elimination), Target Analyzer, and Fast Target Tracking, Furuno Radars will help make that simple objective easier to achieve.



UHD
Ultra High Definition Radar



FAR22x8BB Series

FR19x8VBB Series

FAR15x8 Series

FURUNO
www.furunousa.com