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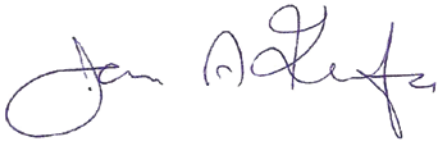
As I contemplate this column, the U.S. federal government is up and running. Normally, I wouldn't waste time with news like that, but on the heels of a 35-day shutdown fueled by lawmaker's funding differences, it's important to remember that unless the negotiations go much better as government workers get back to the job, it could be that by the time you read this magazine, as much at 75 percent of the government could again be shuttered. The impact of a second such event could be catastrophic for the domestic waterfront.

The specter of the U.S. Coast Guard working unpaid during the entire 35 day impasse was simply unforgivable. In normal times, it is easy to find oneself on opposite sides of a thorny regulatory issue from the nation's fifth uniformed service. That's to be expected. On the other hand, the potential collateral damage for the commercial sector during this difficult time is difficult to overstate. The issuance and oversight of Certificates of Financial Responsibility, Documentation, Merchant Mariner Credentials, STCW Endorsements and Medical Certificates were all impacted by the shutdown. To my mind, this simply cannot be allowed to happen again. And, yet, as you read this, that might just be the case.

Separately, however, it is often said that *'where you sit determines where you stand'* in a particular situation. Take the U.S. Army Corps of Engineers, for example, who, unlike the DHS and the Coast Guard, continued to be funded during the entirety of the federal government's sophomoric 35-day spat. That's a good thing for the commercial waterfront, because there is much happening in the world of this month's headliner: dredging. For example, it turns out that the term 'dredge spoils' no longer constitutes a dirty word. Hence, our report on the federal government's new program that pushes the 'beneficial use of dredge materials' – something which DCA CEO Bill Doyle says is "good policy" – starts on page 26.

Also in this edition, the advent of reliable satellite communications for inland and coastal operators long plagued by dropped calls, dead spots and exorbitant pricing plans may usher in a new era of safer and more efficient inland operations. As inland operators increasingly leverage software and technology as they transition from a non-inspected status into subchapter M compliance, they'll need robust and affordable ways to transmit and receive that data. Our report begins on page 42.

Dredging and maritime safety: these two missions, if you believe our federal lawmakers inside the Beltway, exist on different levels of importance. One is essential to the health of the domestic waterfront and the other, not so much. We found that out during the latest budget impasse. This time, it looks like we came through relatively unscathed. That's because the Coast Guard is already very good at *'doing more with less'* and in January they showed us just how good they can perform no matter what the circumstances. The next time, we may not be so lucky. Let's keep our eye on the ball.



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Maritime Training Benchmarked

In 2017, Marine Learning Systems, New Wave Media and the World Maritime University, signed a Memorandum of Understanding as partners for a new initiative designed to collaboratively help ensure safe, efficient and sustainable maritime operations on clean oceans. It will do so by providing the maritime industry with objective and comprehensive data on how it manages and conducts training for shipboard competencies and the effects of drivers, such as technology, on this training.

This data, updated annually by means of a global survey, provides insights that can lead to enhanced policy-setting, decision-making, benchmarking and operational optimization by industry and regulatory authorities at all levels. MarTID's core principles include ethical integrity, objectivity and confidentiality. The secure and anonymized MarTID data provides insights into training practices, budgets, priorities, challenges and perspectives as well as a global picture of maritime training that is not currently available anywhere.

To that end, the first inaugural 2018 MarTID report is now available. Importantly, this data represents a Global Response. Respondents hailed from all over the world, with most operating in North America, Europe and Asia-Pacific, and operated a wide range of vessel types. Hence, the reported data represents a broad cross-section of operations regions and types of operator.

So, what did we find out? You might be surprised. Specifically, the report provides information on:

- *industry spend on training, resources used, and future trends;*
- *methods, tools and techniques for training;*
- *the purposes and goals that training serves within organizations;*
- *how training is tracked and measured within a company;*
- *new initiatives undertaken by operators;*
- *common challenges & anticipated training trends.*

Important 'Take Aways'

More operators increased their training budget from 2016 to 2017 than decreased it. For those increasing their budget, the typical increase fell in the 5% to 25% range. Increases in 2018 are anticipated to be larger and more common than from 2016 to 2017. Increased regulatory requirements, a greater focus on safety and capital expenditures were the most common reasons cited for changes to the training budget. But, there is, apparently, no training "Silver Bullet." A broad range of training methods were employed. That said; of all methods identified, e-learning and simulation were identified as the two which operators planned to increase the use of most in the future.

Of particular note, the top view shared by over a tenth of the respondents is that the STCW is not aligned with industry needs and that it needs to be updated to become more relevant. Conversely, a similar proportion of respondents believe that the current STCW Convention and Code are adequate for international training as is, with the caveat that it is implemented effectively. No doubt, inland and Jones Act coastwise would have much to say about that matter. *The 2019 MarTID survey, now underway, might just be the perfect vehicle for domestic stakeholders to let their positions be known.* Your participation, approximately 20 minutes of your time, helps to broaden the depth of information available to all stakeholders.

Who Responded in 2018? you did ...

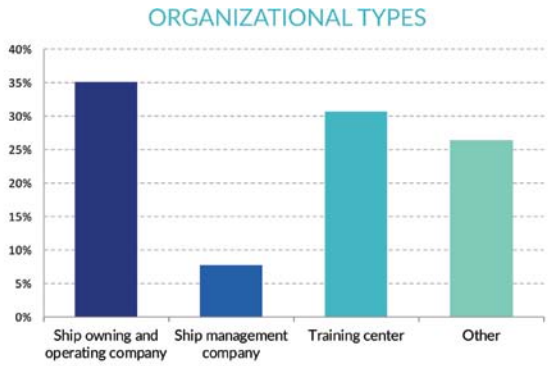
The average age of the respondent was 48 years, with the majority being current or former seafarers. A large majority had acquired a post-secondary degree; while other education backgrounds included achieving Master Mariner and Pilot qualifications. Nearly a quarter of the respondents currently work as instructors or senior trainers, while the remainder of respondents were spread out across various management roles. We also had consultants, advisors and retired seafarers participate. The following table illustrates the breakdown in roles:

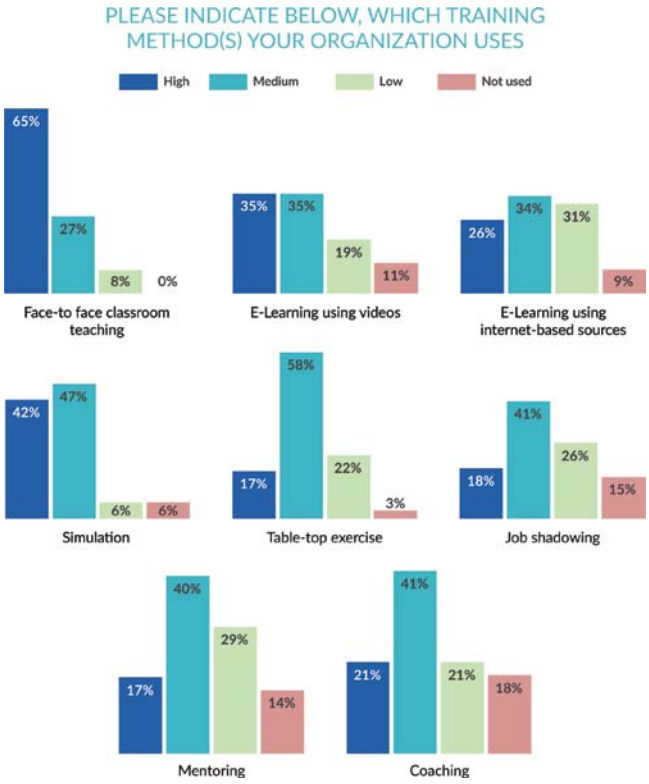
The first MarTID Report: at a glance & By the Numbers ...

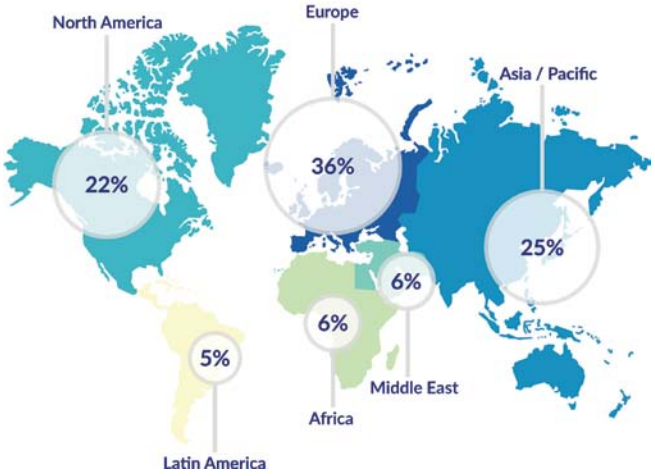
1: *smallest percentage of total operating budget spent on training by any one company.*
8.4: *AVG (years) of experience that respondents had worked in training in their organization.*
13: *Percent of respondents that felt that their training did not cover their operational risks.*
15: *Percent of respondents who believe that STCW is not aligned to industry needs.*
20: *Largest reported percent of total operating budget spent on training.*
32: *Percent of responders who said that safety is the chief driver of their training efforts.*
57: *Percent of companies employing a learning management system (LMS) to deliver & track online training.*
60: *Percent of companies using Simulators to train engineering officers.*
70: *Percent of respondents felt that their training practices were better than average.*
77: *Percent of respondents that felt their training covered operational risks.*
86: *Percent of companies using Simulators to train bridge officers.*
819: *USD per Seafarer that the average organization spent for training in 2017.*

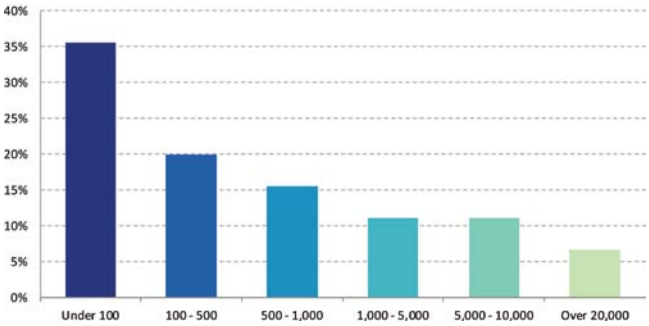
MarTID 2019: The Global Survey of Maritime Training Practices is Open

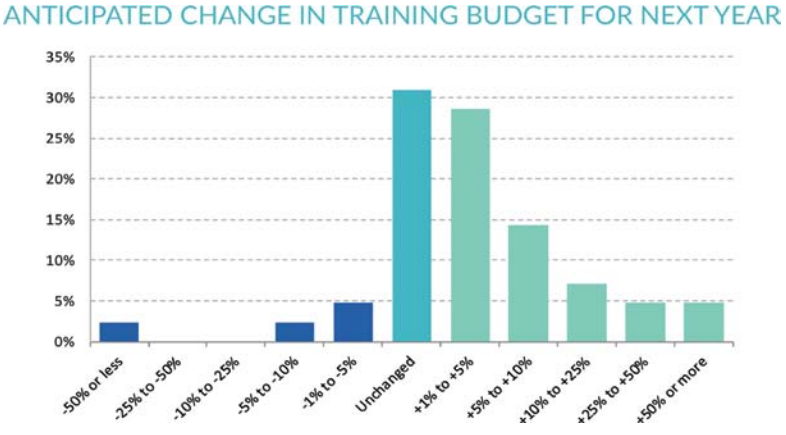
The second annual global Maritime Training Insights Database (MarTID) survey examines the impact of the autonomy trend in maritime operations on the training of future 'seafarers,' and as of November 26, 2018, the survey is officially open.











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- *For Training Institutions: https://www.surveymonkey.com/r/2019MarTIDMETI*
- *For Seafarers: https://www.surveymonkey.com/r/2019MarTIDSeafarer*

The 2018 Training Practices Report can be found at www.MarTID.org

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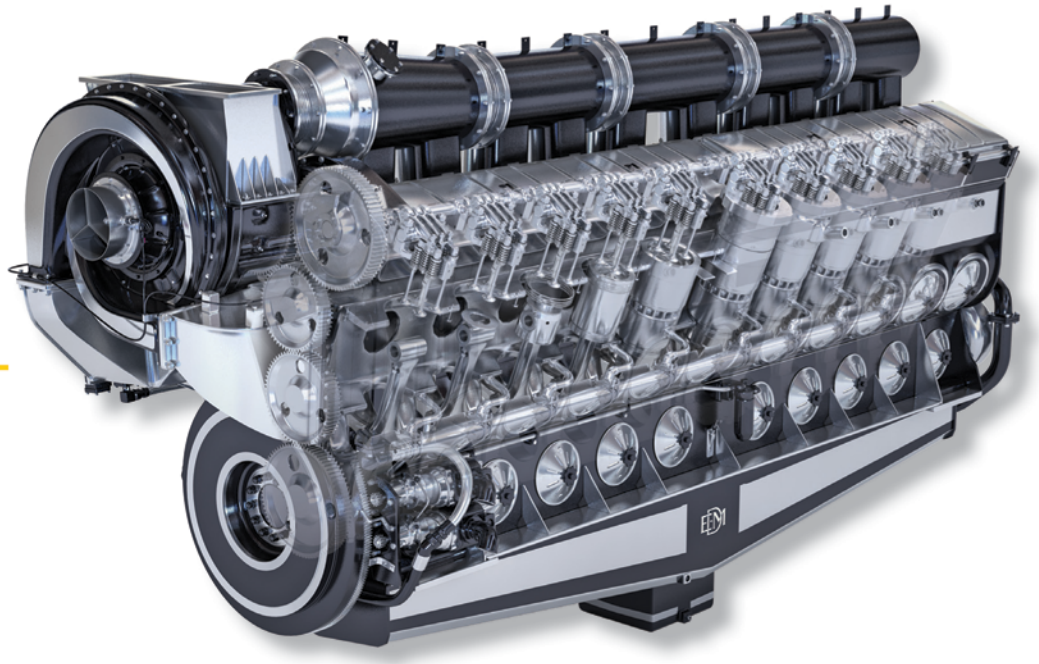

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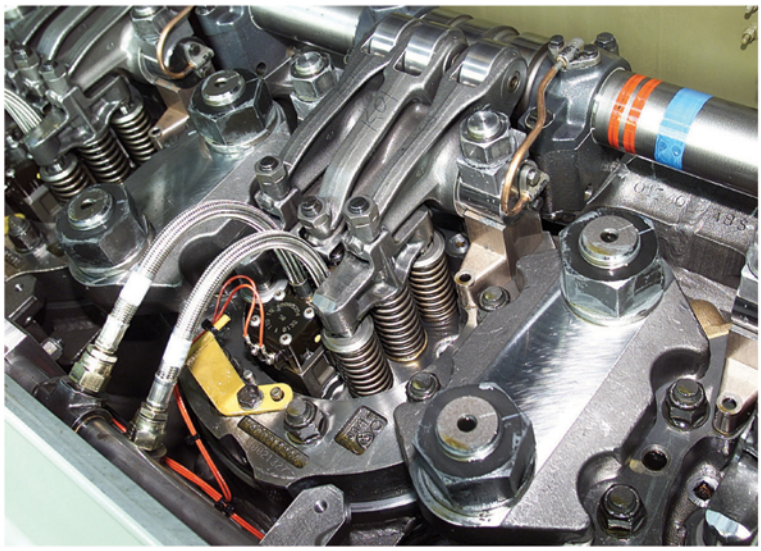

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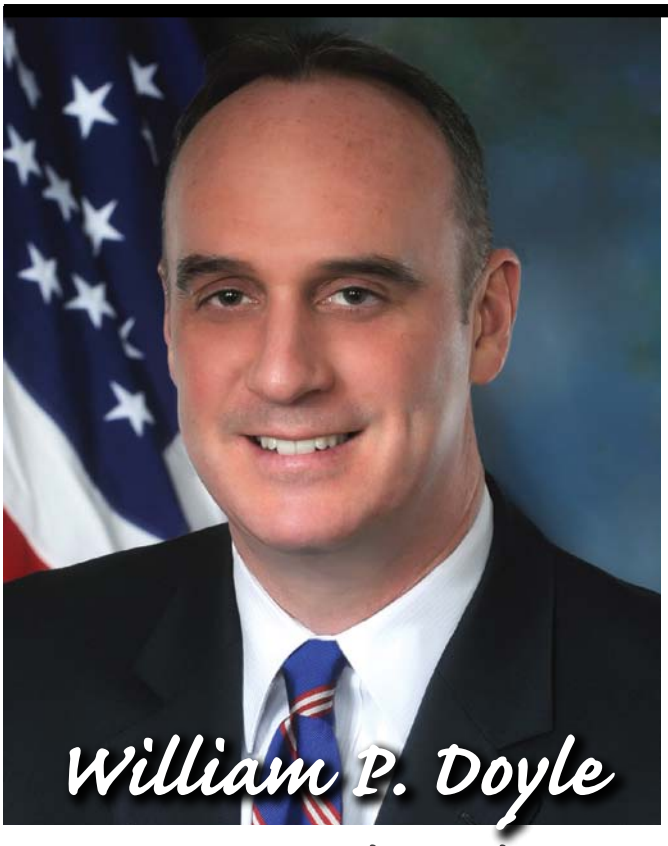

CEO & Executive Director, Dredging Contractors of America (DCA)

William P. Doyle is the CEO & Executive Director of the Dredging Contractors of America (DCA). Twice a U.S. Senate confirmed Presidential appointee to the U.S. Federal Maritime Commission (FMC), Doyle has, over the course of a long and celebrated career, successfully worn many hats. Prior to his FMC appointment, Mr. Doyle served on cabinet and executive level boards and committees under both the Obama and George W. Bush Administrations. Before that, he served as an officer in the U.S. Merchant Marine as a U.S. Coast Guard licensed marine engineer aboard numerous classes of vessels.

During his tenure at FMC, he participates in discussions on certain bilateral shipping matters with other countries including Canada, Panama, Greece, Netherlands and other countries in the European Union. He represented the FMC and co-chaired the U.S.-China Bilateral Maritime Consultations where he met with officials from the People's Republic of China regarding maritime shipping matters such as tax policies affecting U.S. interests in the U.S.-China trade. Closer to home, Doyle has worked to address port congestion matters, ocean carrier alliances, industry consolidation and helping to find solutions that expedite the movement of cargo through the transportation system.

A graduate of the Massachusetts Maritime Academy with a BS in Marine Engineering, he is also an attorney and a graduate of the Widener University Commonwealth School of Law. Doyle has, at one or another worked from all sides – and at all levels – of the maritime equation, and understands what it takes to make things happen. Hence, his recent appointment as DCA's CEO and Executive Director isn't surprising. Nor will anyone be surprised by what he accomplishes in his new role. Listen in this month as he wades into the complicated, but critically important world of domestic dredging.

You've been at the helm of the Dredging Contactors of America (DCA) for a little over one year. Looking back, give us your sense of the biggest victory for domestic dredgers during 2018.

By far, 2018, has been the most consequential and successful year in my private sector career. I've been in Washington, DC since January of 2002, and on the private sector side, this past year has been the best year dredging has seen in generations. Congress and the Administration have certainly focused on infrastructure and dredging has been the center-point. We now know that the Panama Canal expansion is real. More containerized cargo is transiting the Canal from Asia to ports on the East and Gulf Coasts of the United States than ever before – and the volumes will continue to increase moving forward. With that, more liquids and natural gas products are being exported from the United States to Asia, and more in total than ever before.

Two explanations make it all possible with one critical component making it all happen: First, the Panama Canal expansion opened in 2016 – now vessels nearly two and one half the size of the ships that previously transited the Canal, are now able to move through the Canal in both directions. Secondly, individual states in America are helping to fund dredging activity and the federal government (Congress) is making sure our ports are big-ship ready with important funding legislation. The critical component is dredging – notwithstanding the expansion in Panama, the ships cannot

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call on the East and Gulf coasts but for dredging.

Congress, in 2018 alone, appropriated more than $2 Billion for dredging activities. Although infrastructure improvements for the United States was not addressed in a single bill, much was taken care of in several individual and wipe sweeping legislative measures enacted into law including – the Minibus - Energy & Water, Military Construction, Veterans Affairs and Legislative Branch, 2017 Disaster Relief Supplemental Appropriations Bill, Bipartisan Budget Omnibus Act and the FAA Authorization Bill.

What one thing didn't go exactly as planned for U.S. dredgers and marine construction stakeholders? And, what can we do about that?

It's not what we didn't do; it's what we did do in 2018. My companies are engaged. I disliked it when lobbyists and lawyers would come into my office when I was a Commissioner at the FMC and speak about "what was good" and "what needed to be done." I made it known to them early on that they were out of touch and I wanted to hear from the principals of the actual companies—and that then became the norm at the FMC while I was there. It's one thing to argue a position from your perch in Washington and try to jam something through. It's quite another to get the actual operational stakeholders involved with the process so they can explain the importance of what they are trying to do. It meant more, it was real, and we usually found a common ground different from what was originally lobbied. So, I took that experience with me to the dredging sector. Our success this past year in the dredging industry wasn't because of me, it was because of my companies being engaged. I can sit there and talk all day on Capitol Hill to decision makers, but that will only get you so far. We came up with a plan at the Dredging Contractors of America (DCA) – and that plan included the CEOs, principals and operations level folks from the actual DCA companies visiting DC, meeting with their federal and state representatives locally, and talking with the Governors' offices – to explain dredging. My job was easy after that; I just let my companies speak. These dredging companies lay it all on the line with risk, the investment of sweat equity, and, ultimately, owning what comes from all of that effort. And they did very well in 2018 explaining their importance to our national and local security and the economic benefits. I'm proud of my DCA companies.

Some shipbuilding sectors have, over the past 12 months, been red hot. Others, not so much. The newbuild ferry sector, for example, has been very robust. That said; how would you characterize the dredging sector in this regard?

The American dredging industry is amid a $1.5 billion dredging fleet expansion. And, I've encouraged my stakeholder companies to not be shy, but rather talk openly about their investment decisions. New investments include four large cutter suction dredgers, two large hopper dredges and approximately 50 barges built in shipyards across the United States, including Eastern Shipbuilding in Panama City, FL, Conrad Shipyard in Morgan City, LA, and Halimar Shipyard, also in Morgan City. In addition, Callan Marine is constructing a massive 32-inch hydraulic cutter suction dredge at C&C Marine Shipyard in Belle Chasse, LA. Dutra Group is currently building two 6,000 cubic yard hydraulic dump scows at Corn Island Shipyard in Grandview, IN. Separately, Weeks Marine is building a 30-inch cutter head suction dredge at C&C Marine Shipyard. It doesn't end there. Manson Construction has commenced the design phase on a large-scale, self-propelled Glenn Edwards Class hopper dredge, and Cashman Dredging is procuring long-lead time equipment for the construction of two 6,000 cubic yard hopper dredges.

Looking back – and ahead – what's the biggest threat to the Jones Act today, and in particular, the dredging sector?

Lack of knowledge. Interviews like this help. CEO's and Executives must not be afraid of advocating publicly for the Jones Act. They must. We must continue to educate the public. The U.S.-flag dredging industry is part of the more than 40,000 American vessels built in American shipyards, staffed by American mariners, and owned by American companies that operate 24/7/365 in our domestic waters. The US-flag maritime industry sustains nearly 650,000 American jobs and generates $29 billion in labor compensation, $11 billion in taxes, and more than $100 billion in annual economic output.

Give us your sense of the state of the U.S. Flag dredging sector today. Is it healthy? Is it adequate for the needs of the nation and its commercial maritime stakeholders?

We're winners. We meet every need. Look at our investment—it's a supply, demand and ready reserve industry. Domestic dredging companies are investing in new vessels because of demand and because the nation needs our private sector dredges in times of emergency. We predominately work as partners with the U.S. Army Corps of Engineers (USACE). USACE is our customer. When we build dredging capacity to add the fleet, that fleet works for the Army Corps – Our fleet, therefore, is USACE's fleet.

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When talking about dredging, the first word that probably does not come into your mind is "high Tech." But there have been some developments in the dredging sector about equipment and techniques. Tell me about one or two.

Digitalization is here. The hopper dredges, cutter head suction dredges, tugs, dump scows, survey boats – you name it – they are all equipped with digital technology or moving quickly in that direction. Cashman Dredging has designed and implemented such technology – the Scow Geofence System – to prevent inadvertent placement of dredge material in non-authorized ocean disposal sites. The system itself is comprised of a small computer and a GPS receiver that is connected to the scow controls. The Scow Geofence System utilizes a relay that connects it to the scow's programmable logic controller (PLC). The PLC controls the communication, engine start and stop and the sequencing of the hydraulics for the split hull scow. But, that's just one of many initiatives underway on board U.S. flag dredging equipment.

The partial government shutdown was worrisome in terms of what work was left idle while it was ongoing. Leaving the politics of the matter completely to one side, what's the short- and long-term impact on commercial dredgers – if any – and of course, the mission of the U.S. Army Corps of Engineers (USACE)?

The Corps is funded – they are not part of the shutdown, per se. We in the dredging sector along with a whole host of groups in the construction, engineering, ports and mechanical industries worked all year with Congress to help make sure the Corps was funded on time in 2018-19.

Last year, you said that a dredging backlog exists around the country that additional funding could help resolve. As a starter, FY18 funding was better than FY17. What does the coming year look like in that regard?

We are encouraged, engaged, and very busy. And we're working every day with the Army Corps on scheduling, planning and the dredging windows in order to complete projects.

What are some tasks left over from last year that you would like to accomplish soon?

We're going to look at dredging windows and beneficial use of dredge material. The Corps has recently

U.S. hopper dredge companies visit Washington, DC for a CEOs/Owners Roundtable with General Semonite and staff at U.S. Army Corps of Engineers Headquarters. (L-R, Maj. Gen. Scott Spellmon, Richard Weeks (Owner, Weeks Marine), Frank Belesimo (EVP, Cashman Dredging), William P. Doyle (CEO, DCA), Harry Stewart (EVP, Dutra Group), Lasse Petterson (CEO, Great Lakes Dredge & Dock), Mark Sickles (Sr. Director, Weeks Marine), General Todd Semonite, Dan Hussin (VP, Manson Construction), Fred Paup (Chairman, Manson Construction), Bill Hanson (VP, GLDD), Bill Dutra (Owner, Dutra Group), Tom Smith (USACE), and Jay Cashman (Owner, Jay Cashman, Inc.)

announced a series of authorized ten 'beneficial use of dredge material' projects around the country. Those projects are designed to use material dredged from one site and then utilize it for coastal restoration rather than wasting it through ocean dumping or some other type of disposal. It's good policy; now more widely accepted in the environmental community. Therefore, we'll push for more of this in the coming years. On the dredging window side, public officials want their beaches built. The adage used to be "don't dredge during the summer months, it's bad for tourism, all dredging needs to be concluded by Memorial Day." That's not true anymore. I witnessed it. I was privy to a couple of dredging projects this past summer in the Mid-Atlantic. And, I can tell you those counties want dredging and beach nourishment regardless of the season. I saw residents, public officials and tourists visiting beach nourishment sites taking "selfies" from their smart phones with the dredge vessel in the backdrop and the pipeline pumping sand ashore. In short, I loved every minute of it. We're making dredging great again!

A Time to Act Boldly:
Maritime Challenges in the 116th Congress

By Jeff Vogel


Vogel

The 116th Congress, with its now Democrat-controlled House and 110 newly-elected members, faces a choice. On one hand, Congress can continue to pursue the status quo, supporting U.S.-flag vessel operators and domestic port infrastructure development through existing programs, with suboptimal results. On the other, the 116th Congress can choose to be bold. It can recognize that the U.S.-flag fleet, with only 83 vessels operating in international trade, clearly requires new mechanisms of support. Congress can also recognize that our domestic port infrastructure is a strategic national asset, critical to the health of our economy, requiring additional direct federal funding.

U.S.-Flag Challenges

If the 116th Congress chooses the status quo, the U.S.-flag industry will continue to face significant problems in the coming years. Take, for example, the Maritime Security Program (MSP), which on its face would appear to be in a relatively stable position during the forthcoming Congressional session. The program's funding is currently authorized at $5 million per vessel through Fiscal Year (FY) 2020, increasing to $5.2 million per vessel in FY 2021. However, notwithstanding these authorizations, funding for the program is not guaranteed.


Credit: AdobeStock © SunnyS

With funding caps under the Budget Control Act of 2011 set to be reinstated in FY 2020, the Maritime Administration (MARAD) may once again find itself scrambling to seek budget anomalies to evade sequestration cuts, or face losing additional vessels from the U.S.-flag fleet. In addition, the MSP stipend payment is set to drop by nearly a third after FY 2021, which the 116th Congress will need to address to ensure that U.S.-flag operators remain economically viable while providing critical sealift capabilities to the Department of Defense.

Additionally, dwindling government-impelled cargo opportunities and ever-increasing operational costs further undermine the economics of operating U.S.-flag vessels in international trade. Traditional sources of preference cargoes will once again face significant pressure during the upcoming Congressional session. For example, the Export-Import Bank's reauthorization is set to expire on September 30, 2019. Beyond this, the President's budget requests continue to zero out established humanitarian aid programs such as P.L. 480 Title II and McGovern-Dole Food for Education. These actions create significant uncertainty about the future availability of preference cargoes.

Again, the 116th Congress must act boldly to reverse the downward trend of preference cargoes. In addition to reauthorizing and funding these established programs, Congress must seek to create increased U.S.-flag cargo opportunities wherever possible and give MARAD additional statutory enforcement tools. Quite simply, without these additional levers of support in times of peace, it is questionable whether there will be a sufficient U.S.-flag fleet when called upon in times of war.

Port Infrastructure Opportunities

On the port infrastructure side, the 116th Congress holds both a great deal of promise and uncertainty. On December 11th, Transportation Secretary Elaine Chao announced the recipients of the 2018 Better Utilizing Investments to Leverage Development (BUILD) Transportation Discretionary Grants. Ninety-one transportation projects were awarded $1.5 billion in grant funding. Included in the awards were

ten port projects, totaling $148 million in funding. Various other surface transportation projects will occur outside of port property, but will have positive direct impacts on port development. While the total amount of port funding is encouraging, the percentage of available funding that was allocated to port projects remained relatively low – approximately 10% of the available funding. This percentage is generally consistent with prior transportation infrastructure grant awards since 2009.

The primary challenge with the BUIILD Transportation program is that it is funded with a lump sum to the Department of Transportation. Therefore, port projects must compete for grant funding against road, rail, and transit projects, which are generally more publicly and politically visible. Moreover, the BUILD Transportation program lacks a permanent authorization, and is instead authorized on a single year basis through appropriations acts, making funding less predictable.

However, a clear opportunity exists during the 116th Congress, where transportation infrastructure funding will likely receive bipartisan support. A permanent authorization for the BUILD Transportation program – or preferably a new standalone port grant program – could finally deliver on long-promised increases in infrastructure funding, while recognizing the irrefutable strategic value of our nation's ports.

Signs of Bold Intentions in Shipbuilding

The good news is that Congress has signaled some willingness to take bold actions to support the U.S. maritime industry, as evidenced by both enacted and proposed shipbuilding legislation during the prior Congressional session. For example, the Consolidated Appropriations Act, 2018, included $300 million to kick-off the novel National Security Multi-Mission Vessel (NSMV) program. Additionally, the February 12, 2018, addendum to the President's FY 2019 budget proposal included an additional $300 million in funding to procure and convert vessels in U.S. shipyards to replace two more state maritime academy training vessels. The 116th Congress now must follow through with additional funding for these critical shipyard projects and training platforms.

Additional positive indicators of bold action came in the form of Rep. John Garamendi's (D-CA) proposed Energizing American Shipbuilding Act, which sought to mandate the use of U.S.-built, U.S.-flag vessels to carry a portion of exported liquefied natural gas and crude oil. In championing the bill, Mr. Garamendi was unequivocal in stating that the "U.S. Merchant Marine and shipbuilding industries are strategic national assets critical to national security" and "critical to the growth and flow of our economy." Rep. Garamendi, who served as the Ranking Member of the House Subcommittee on Coast Guard and Maritime Transportation in the 115th Congress, will have ample opportunity to pursue similar novel forms of support in a new leadership position.

These bold shipbuilding initiatives now must be replicated by the 116th Congress in support of both U.S.-flag vessel operations and port infrastructure development. The status quo is not sufficient, and Congress' failure to act strategically – and develop new means of support for the U.S.-flag fleet and port infrastructure development – will have a lasting impact on our nation's security and economy.

Jeff Vogel *is a member in Cozen O'Connor's Transportation & Trade Group. He can be reached at: jvogel@cozen.com.*

The USGC-Mandated Drug Testing Increase:

Wasteful, Unwarranted and does not address the 'Marijuana Challenge.'

By Lee Seham

Seham

On December 28, 2018, the United States Coast Guard published a notice in the Federal Register alerting the maritime industry of its determination to increase the minimum annual rate of random drug testing for 2019 from twenty-five percent (25%) to fifty percent (50%). American Maritime Safety, Inc. (AMS), a non-profit industry consortium that facilitates the industry's compliance with these regulations, regrets the Coast Guard's decision.

AMS counts as members over 400 maritime employers including cruise liners, tanker operations, major containership companies, tugboat fleets, and pilot associations. Within the AMS consortium, the current statistical data does not warrant an increase in government-mandated testing and, therefore, any increase over the current minimum random testing rate of twenty-five percent (25%) for major maritime operators should have been left to the individual employer.

Legal Background

When originally promulgated in 1988, U.S. Coast Guard regulations provided for a fifty percent (50%) annual testing rate. The random rate was subsequently reduced to twenty-five percent (25%) pursuant to 46 C.F.R. § 16.230(f), which provides that the Commandant "may" reduce the annual testing to this lower level if he determines that the "data" indicates an industry-wide positive rate of less than 1.0 percent (1.0%) for two (2) consecutive years.

Nevertheless, the same section also provides that, in the event of such a reduction, the Commandant "will" restore the fifty percent (50%) testing rate in the event that the "data" for any calendar year indicates a positive rate equal to or greater than 1.0 percent (1.0%). 46 C.F.R. § 16.230(f)(3).

In terms of legal process, and because it is baked into the existing regulations that the testing will revert to the original level upon reaching a 1.0 percent (1.0%) positive rate, the USCG is not required to observe the procedures of the Administrative Procedure Act in terms of publishing a Notice of Proposed Rule Making and soliciting public comment.

Statistical Data

AMS maintains consortium-wide statistical data for the greater part of the commercial U.S. flag maritime industry. These statistics include positive/negative data for annual testing that ranges in volume from 25,000 to 30,000 tests per year.

As discussed at the AMS annual meeting on October 9, 2018, within our consortium, the 2017 positive rate had nosed up to approximately 0.9 percent. Presumably, the 1.0 percent trigger referenced by the USCG was reached by aggregating non-AMS maritime industry data – predominantly from smaller operators – that exceeded the 1.0 percent positive rate.

Operational Safety

In our view, the statistical data does not support a finding that there has been a decrease in operational safety in the U.S. maritime industry that would warrant removing maritime employers' discretion to determine appropriate testing levels above the current twenty-five percent (25%) testing level. The reasons for our conclusion include the following:

- *First, well over half of the total positive test results for 2017 fall in the category of pre-employment testing. To a great extent, these positives correspond to applicants who were barred from entering or reentering the maritime industry. If confined to current and active maritime employees, the statistical data would reflect a positive rate significantly lower than 1.0 percent (1.0%).*
- *Second, the numerical increase in marijuana positives from 2016 to 2017 was equal to the increase in all other drug groups combined (i.e., cocaine, amphetamines, opiates, and PCP). Since detectable levels of THC metabolites may remain in an individual's system for weeks after any physiological impact has dissipated, the increase in the level of marijuana positives, though regrettable, does not necessarily reflect a degradation in operational safety.*
- *Third, the best indicator of operational impact is post-Serious Marine Incident testing. In 2017, of the 937 post-SMI tests that were conducted within the AMS consortium, only 7 were positive - a slight increase from 2016.*

The doubling of the minimum testing rate poses not just additional costs, but significant logistical challenges and operational disruptions for maritime employers. Our review of the relevant data leads us to conclude that any determination as to the value of additional testing is best left to the individual employer.

The Marijuana Policy Challenge

As referenced above, the primary driver behind the increase in positives tests – and the regulatory obligation to double testing rates – is marijuana.

Our industry is faced with a vexing problem: while increasingly legal under state law, marijuana use remains illegal under federal law. For the U.S. mariner, however, the devastating impact of a marijuana positive on his document, license, and employment status cannot be evaded based on a state law defense.

AMS encourages all maritime employers to provide the following notice to their shipboard employees, both within published policies and as a standalone notification:

*Marijuana is a controlled substance under federal law. For all shipboard employees, it **shall not** be deemed an acceptable defense, in response to a verified positive for marijuana, that the marijuana or THC-based product was consumed in a state or foreign jurisdiction permitting the medical or recreational use of marijuana. A verified positive for marijuana will result in termination and license/document revocation proceedings.*

Note that we reference "shipboard employees." Though it is a recipe for confusion and cries of unfairness, maritime employers in several states may have to maintain employment policies that discriminate between shipboard employees, who must abstain from marijuana consumption, and shoreside employees, who may have a state law right to engage in such consumption provided that they do not come to work in an "intoxicated" state.

The rate of state legalization of marijuana has outpaced the states' efforts to educate the public with respect to the impact of marijuana use on health, safety, and employment. Employers need to take up the slack, and the message must be clear: if you want to work in the U.S. maritime industry as a shipboard employee, you must never use marijuana.

That is, until *federal* law changes.

***Lee Seham** is a partner in the labor/employment law firm of Seham, Seham, Meltz & Petersen and General Counsel of the non-profit drug testing consortium American Maritime Safety, Inc.*

Credit: AdobeStock © gamlai

Structuring Infrastructure:
The Inland Waterways View

By Michael J. Toohey


Toohey

At the start of any new year, we are often asked what our challenges will be or what we are going to do differently in the year ahead. However, in 2019, just like each year since Waterways Council, Inc. (WCI) was founded in 2003, we intend to stay the course to advocate for full and efficient funding for the U.S. Army Corps of Engineers to continue its Civil Works mission to construct and maintain navigation projects on the inland waterways.

The Corps' work plan for Fiscal Year 2019 allocated full funding levels for five projects from monies provided in the FY2019 Minibus Appropriations bill. Specifically, these include Olmsted (Ohio River): $50 million to final completion; Kentucky Lock (Ohio River): $43.6 million; Lower Mon 2, 3, 4 Project (Monongahela River): $89 million; Chickamauga (Tennessee River): $89.7 million; and LaGrange (major rehabilitation, Illinois Waterway): $57.5 million to completion.

It is a great accomplishment to see full and efficient funding allocated to the Corps for its important work on the inland waterways that should allow the completion of as many as 25 priority navigation projects over next 28 years. Nevertheless, the Nation has a tremendous opportunity ahead to shrink that timeframe and to make meaningful changes to our aging – and failing – infrastructure.

Infrastructure – be it highways, bridges, sewer systems, runways, or locks and dams – is the very foundation of the United States or any country. Sadly, the United States has neglected these critical systems and kicked the can down the road right into a giant pothole. On the inland waterways, locks and dams were constructed largely during the 1920s and the 1930s as part of the New Deal under President Roosevelt. The average age of the 219 inland locks is 59.1 years, with more than 60% of them outliving their intended 50-year design life.

Locks and dams are critical infrastructure. They keep waterways channels and 12,000 miles of inland rivers navigable, offer hydropower for electricity, prevent floods, supply municipal and industrial water, provide national security protection, and offer recreational boating and fishing opportunities for the Nation. These *'inland marine highways'* move commerce to and from 38 states throughout the heartland and Pacific Northwest, serving industrial and agricultural centers, and facilitating imports and exports at gateway ports on the Gulf Coast. This means that American family farmers, energy producers, manufacturers, constructors, and other commodity shippers have a chance to compete – and win – in the global marketplace. The inland waterways also help to sustain more than 541,000 jobs, strongly bolstering the U.S. economy, all while transporting freight in the most energy-efficient, environmentally friendly, and safe way.


Credit: USACE

The most recent attempt at a plan to modernize the Nation's infrastructure was floated by the Trump Administration in 2017, an effort that proved to be unsuccessful. The Trump plan was unwelcomed by inland waterways interests because it called for the Secretary of the Army to enter into Public Private Partnerships (P3s) or other alternative financing schemes, and to authorize the federal government and non-federal entities to levy and retain user fees. For the inland waterways, this assuredly means tolls or

lockage fees, and WCI is strongly opposed to these or other new charges for commercial users of inland locks and dams.

WCI's opposition to tolls is anchored in the need for consistent federal policy and fundamental fairness. Businesses have relied upon efficient waterways transportation in making locational decisions. If the federal government were to enable private entities to charge a toll for the use of any waterway, businesses on those waterways would suddenly find themselves at a competitive disadvantage.

In particular, it is the nation's agriculture sector that would be most impacted by tolling the waterways. Farmers living up-river and utilizing the waterways to transport crops to market would be tremendously disadvantaged. The export market establishes the price for most U.S. grain markets. Therefore, producers would have to pay new tolls, as growers get the price at the export terminal, less the cost of transportation. Some estimate that tolls on the Upper Mississippi River could equate to 31.5 cents-per-bushel to transit 24 locks. American refineries and chemical plants that depend on water transportation for feedstock supply and product distribution to customers would also be pinched by tolls.

Instead of tolling, WCI supports the current diesel fuel tax collected as a levy on fuel used in commercial transportation on the inland system. In fact, the industry, led by WCI, in 2014 endorsed a 45% increase in the diesel fuel tax, from $.20-cents-per-gallon to $.29-cents-per-gallon. These private sector revenues go into the Inland Waterways Trust Fund and are matched with public funds for capital improvements for navigation infrastructure. ***This*** is a Public Private Partnership that is working well.

Some toll-based P3s work well in other transportation programs. In the highway program, users have a choice to use new capacity provided by a toll facility, or to continue to use the existing, un-tolled capacity. On the rivers, which are unique, there is no off-ramp, and the choice is removed for users who have only the option of using the tolled lock.

Only commercial barge companies and their customers pay the diesel fuel tax to use the waterways, while numerous other system users pay nothing. These beneficiaries include municipal water supply, hydropower, recreation, industrial process and cooling water, flood damage prevention, national security, and irrigation users. It is fundamentally unfair to burden one small beneficiary group with additional costs while others receive the benefits at no cost.

Opportunity lies ahead and there is hope for the development of a proper package to meaningfully improve our Nation's infrastructure, locks and dams ahead, with bipartisan support in Congress and the Administration. In any future infrastructure initiative, WCI hopes and advocates for proper recognition of the waterways as a unique and essential component of the transportation supply chain.

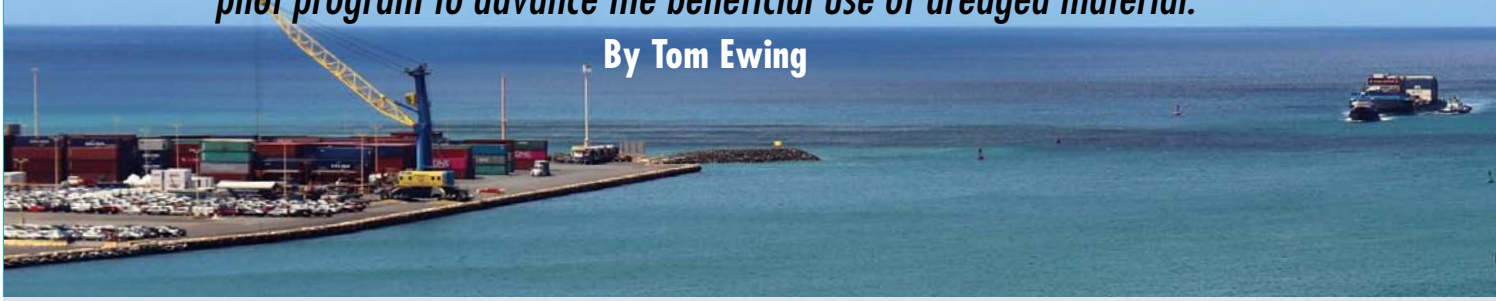
Learn more at **www.waterwayscouncil.org**

Michael J. Toohey *is President and CEO of the Waterways Council, Inc.* ***www.waterwayscouncil.org***

U.S. Army Corps Selects 10 Beneficial Use Pilot Projects

At the end of December, the U.S. Army Corps of Engineers (ACE) announced its selection of ten dredging projects that will form the core of a pilot program to advance the beneficial use of dredged material.

By Tom Ewing



The recent U.S. Army Corps of Engineers' announcement culminated a program required by Congress, established within the Water Resources Development Act (WRDA) of 2016, specifically Section 1122. Congress directed that the ten pilot projects selected were required to present environmental, economic, and social benefits and the selections had to show "geographical diversity," i.e., undertaken in different locations around the country. The Army Corps received 95 proposals.

The term, 'dredge spoils,' for most dredgers, is a dirty word. And, thankfully, it is slowly becoming a catch phrase from the past. According to William P. Doyle, the CEO & Executive Director of the Dredging Contractors of America (DCA), it's all good news. Doyle says, "Those projects are designed to use material dredged from one site and then utilize it for coastal restoration rather than wasting it through ocean dumping or some other type of disposal. It's good policy; now more widely accepted in the environmental community. Therefore, we'll push for more of this in the coming years."

Section 1122 also included a list of review criteria. Drilling down a little deeper, Congress wanted projects that would advance the following benefits:

- *Reducing storm damage to property and infrastructure;*
- *Promoting public safety;*
- *Protecting, restoring, and creating aquatic ecosystem habitats;*
- *Stabilizing stream systems and enhancing shorelines;*
- *Promoting recreation;*
- *Supporting risk management adaptation strategies; and,*
- *Reducing the costs of dredging and dredged material placement or disposal, such as projects that use dredged material for —*
  - » Construction or fill material;
  - » Civic improvement objectives; and
  - » Other innovative uses and placement alternatives that produce public economic or environmental benefits.

A brief, closer look at each winning project, summarized from the USACE Environmental Assessment (EA), follows. That EA was not generally circulated, but was made available upon request. Importantly, the EA provides insight as to why the Army Corps judged that these 10 projects best demonstrate alignment with Congressional priorities.

It is also important to note that final costs and budgets are not within USACE's EA report. The projects are, however, subject to Sec. 204 cost-sharing requirements and there are limits on federal payments for transporting dredged material. These projects are not yet 'shovel ready.' Each will un-

**All dredging images courtesy: USACE*

Ten Proposals for Recommendation in alphabetical order by State ... at a glance

STATE	MSC	PROJECT
CA	SPD	*Restoring San Francisco Bay's Natural Infrastructure w/Dredged Sediment: Strategic Placement*
HI	POD	*Haleiwa Small Boat Harbor Maintenance Dredging and Beach Restoration*
IL	LRD	*Public Beach Protection Pilot in Four Illinois Coastal Communities*
MS	SAD	*Deer Island Lagoon Project*
NJ	NAD	*Beneficial Use Placement Opportunities in NJ Using Navigation Channel Sediments: Barnegat Inlet*
PR (*)	SAD	*Condado Lagoon*
SC	SAD	*Crab Bank Seabird Sanctuary*
TX	SWD	*Hickory Cove Marsh Restoration and Living Shoreline*
WA	NWD	*Grays Harbor South Jetty Sand Placement Pilot Project*
WI	MVD	*Mississippi River Upper Pool 4: Beneficial Use of Dredged Material*

(*) PR = Puerto Rico. MSC: "Major Subordinate Command," pertains to a State's particular regional Division (e.g. POD, SAD, etc.) / Project costs will be developed by the Districts. Contractors are not known at this time.

dergo closer analysis within USACE's specific regional offices.

1. Restoring San Francisco Bay's Natural Infrastructure with Dredged Sediment: Strategic Placement

Location: San Francisco, CA

Summary: Pilot implementation of innovative strategic placement technique by placing dredged sediment from a federal navigation project adjacent to a tidal wetland using tides and currents to transport sediments to the marsh plain.

Highpoints:

- "Strategic placement technique" is the critical concept. Note that final placement depends on tides and currents to augment mudflats, marshes, and breached salt ponds.
- Reduces offshore disposal.
- Stabilizes the shoreline.
- Rebuild becomes a "first line of defense" in dampening tidal forces.

2. Haleiwa Small Boat Harbor Maintenance Dredging and Beach Restoration

Location: Island of Oahu, HI

Summary: Federal navigation sediments will stabilize the seawall, enhance the eroding shoreline and prevent exposure of a sewage treatment facility.

Highpoints:

- The first-time that federal navigation sediments will be used in such a project.
- Helps meet the need for sand resources, which are scarce in Hawaii.
- Seawall stabilization.
- Erosion prevention, particularly important in this locale for coral and marine life.

- Habitat benefits for benthic and endangered sea turtles and Monk seals.
- Expands recreational access.

3. Public Beach Protection Pilot in Four Illinois Coastal Communities

Location: Lake Michigan, IL

Summary: This project fosters collaboration among several communities (including a disadvantaged community) to place about 70,000 cubic yards of dredged material from the Waukegan Harbor federal channels at six sites in order to protect 30 miles of shoreline and provide improved recreation access.

Highpoints:

- Local government teamwork.
- Avoids trucking in quarried sand.
- Protects sand dunes & builds habitat for endangered species, including the red knot & piping plover.

4. Deer Island Lagoon Project

Location: Biloxi, MS

Summary: This innovative adaptive management solution would incrementally fill Deer Island Lagoon to create 100 acres of tidal marsh using fine-grained dredged material from the adjacent Biloxi Harbor federal navigation project.

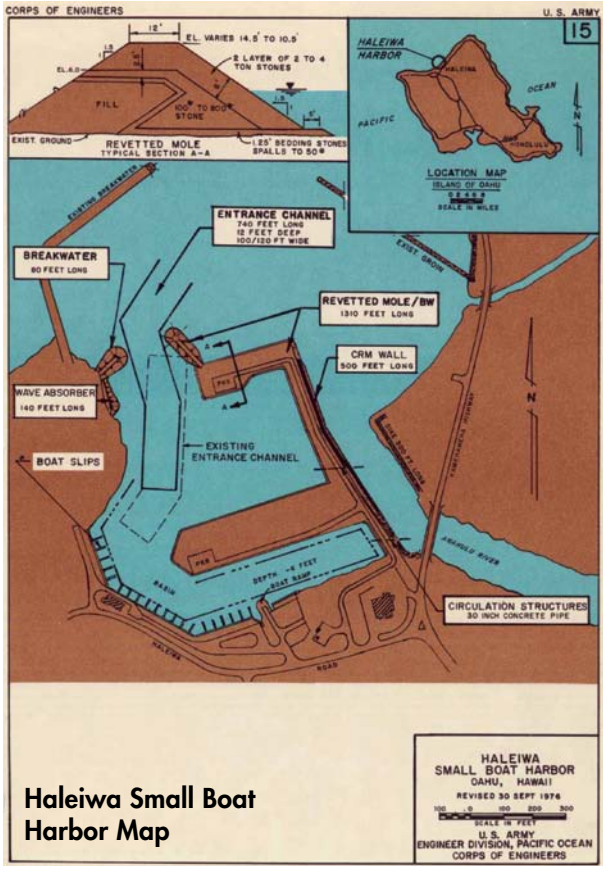
Highpoints:

- The project's gradual approach is highlighted because it allows for natural consolidation and prevents the need to construct large containment structures.
- Extensive plant and wildlife benefits for the slash pine maritime forest, relic dune scrub, migratory bird, great blue heron rookery, and a number of endangered species habitats in addition to nesting sea turtles, ospreys and bald eagles.
- Possible coastal storm risk management, life safety, and community benefits with increased recreational opportunities.
- Leverages CAP 204 inter-related project funding.

5. Beneficial Use Placement Opportunities in New Jersey Using Navigation Channel Sediments

Location: Barnegat Inlet, NJ

Summary: Dredged material from Federal and State navigation channels would be placed on portions of the Barnegat Inlet to Little Egg Inlet Shore Protection Project, a project where offshore sand sources are used and are becoming increasingly scarce.



Haleiwa Small Boat Harbor Map

River Raisin Dredging, Monroe, Michigan

Highpoints:

- Benefits to navigation and safety. One focus is to restore "hydrodynamic processes."
- Leverages federal and state partnerships.
- Environmental/wildlife benefits extend to numerous endangered species, from horseshoe crabs to birds and decreasing coastal storm impacts.

6. Condado Lagoon – restoring a degraded aquatic ecosystem

Location: Northern Coast of Puerto Rico

Summary: This project will restore the degraded aquatic ecosystem in Condado Lagoon by using dredged material from the San Juan Harbor navigation project to reestablish historic lagoon elevations leading to restoration of ecosystem functions.

Highpoints:

- Expanding sea grass communities will provide nursery habitats in the Lagoon, benefiting species with commercial and recreational fishery value.
- Benefits for green sea turtles and the West Indian manatee.
- Possible new economic opportunities from expanded tourist related activities including scuba diving, snorkeling and sailing.

"Those projects are designed to use material dredged from one site and then utilize it for coastal restoration rather than wasting it through ocean dumping or some other type of disposal. It's good policy; now more widely accepted in the environmental community. Therefore, we'll push for more of this in the coming years."

– William P. Doyle,
CEO & Executive Director of the
Dredging Contractors of America

7. Crab Bank Seabird Sanctuary

Location: Charleston Harbor, SC

Summary: Dredged material from the Charleston Harbor Post-45 Deepening Project would be placed at Crab Bank to restore and enhance 80 acres of island at an important seabird sanctuary to support shore bird habitat.

Highpoints:

- USACE emphasizes that "this project has received approval to use higher fines content dredged material through extensive coordination with natural resource agencies."
- Non-uniform placement builds topographic variation and habitat diversity.
- Rebuilding will protect the salt marsh by dissipating wave energy.
- Development of numerous recreational and educational opportunities.

8. Hickory Cove Marsh Restoration and Living Shoreline

Location: Sabine, TX

Summary: Dredged material from a portion of the Sabine-Neches Waterway will be placed to restore 1200 acres of emergent marsh habitat important to wintering migratory waterfowl and resident water birds along a 6 mile reach of the Sabine Neches Waterway at the intersection of the Neches and Sabine Rivers.

Highpoints:

- Provides an opportunity to remove sedimentation from Hurricane Harvey, maintenance not currently performed due to a lack of placement sites.
- Possible storm risk management for petrochemical facilities and local communities.
- The chance to build on established local partnerships.

9. Grays Harbor South Jetty Sand Placement Pilot Project

Location: Seattle, WA

Summary: Dredged material from the Grays Harbor Federal Navigation Channel will be placed using pump ashore capability from hopper dredge to restore the eroded beach and primary dune along the shoreline south of Grays Harbor and will assist in protecting the south jetty.

Highpoints:

- Restore habitat for endangered snowy plover, razor clam, Dungeness Crab, and forage fish.
- Improve coastal storm risk management a large portion (about 25%) of municipal property.
- Take advantage of collaborative local government planning.

10. Mississippi River Upper Pool 4, Pierce County Islands and Head of Lake Pepin Backwater Complex

Location: Upper Mississippi River, Wisconsin

Summary: Dredged material from Lower Pool 4 will be placed to create aquatic ecosystem habitat in Upper Pool 4, an area largely degraded due to sediment deposition caused by material from the Minnesota River. Also includes dredging of Bay City Federal harbor adjacent to the project area.

Highpoints:

- The unique riverine focus provides an opportunity to restore bathymetric (river floor) diversity in an area impacted by Army Corps locks and dams.
- Will provide 1,000 acres of habitat for waterfowl and migratory birds.
- Improves small boat harbor navigation and safety. Bay City Harbor is currently not dredged due to a lack of a placement site.
- Leverages CAP 204 funds and non-Federal partnerships.

As noted, ACE received a total of 95 pilot project applications from 30 states, from Alaska to Ohio to Connecticut, and Puerto Rico; surely reflecting "geographical diversity" and, without a doubt, clearly demonstrating interest and need regarding dredging and project solutions.

Sec. 1122 also set the project review process, requiring that ACE establish regional teams to undertake the initial, first-pass review of applications. The regional teams included Army Corps staff as well as individuals from other relevant federal, state and local agencies. There were eight such regional teams. Their work was completed in April 2018 and each team's review materials were then sent to a Headquarters evaluation board.

The Top Ten: careful choices

At HQ, reviewers did not attempt to establish a 1 to 95 project ranking. Rather, they developed a two-step process, referred to as the "first sort and second sort." The first sort, generally, sought to assess how well a particular project met the purposes and considerations set in Sec. 1122.

The second sort was more detailed, including a broad review of a range of environmental benefits – from ecosystem restoration to endangered species to concerns about radioactive and toxic materials. Outcomes were assigned a "High-Medium-Low" impact rating. Next, an analysis of economic and social benefits went through a similar filter. Reviewers tried to assess national and regional economic impacts, e.g., from reduced costs of flood damages to improved recreational opportunities. Projects were qualitatively ranked as "Positive-Neutral-Negative."

The top 10 projects emerged from the second sort. Each demonstrated a high likelihood of delivering on environmental, economic, and social benefits. "Geographic diversity" provides valuable R&D opportunities across a variety of national waterways, soils, navigation and related ecosystems – and every single project will yield important opportunities to learn about matching mucky waste with reclamation and rebuilding.

At long last, the term 'dredge spoils' gives way to 'beneficial dredged material.' It's about time.

Tom Ewing *is a freelance writer specializing in energy and environmental issues.*

U.S. Coast Guard Looks beyond Mooring Lines

Strength, Safety and Sustainability are at the heart of this Homeland Security stakeholder's mission set.

By Brian Hostetter

For over 30 years, high performance fiber rope manufacturer Phillystran has worked with the U.S. Coast Guard to supply mooring and towing lines. As innovations in fiber rope technology have enabled lighter and stronger ropes, the Coast Guard has not been slow to take advantage of these and other developments.

In step with most maritime stakeholders, NAVSEA approved fiber ropes are widely used by the U.S. Coast Guard. The advantages in certain maritime applications are obvious, as fiber ropes are lighter and easier to handle than steel wire ropes and are just as strong, if not stronger. Applications range from routine mooring and towing lines to the provision of lifelines together with boat preventer stays, lashing ropes, rigging lines, through to 'fast' ropes for Coast Guard Maritime Security Response Team helicopter deployment.

Improving With Every Change

A common thread, often discussed, is the rope industries' ability to 'fine tune' rope materials to meet the challenging and rapidly changing requirements of the Coast Guard. There is a continued push for lightweight materials that increase safety, are easier to handle to reduce labor hours and are more suited to the changing demographic of Coast Guard crew personnel. New materials for mooring and towing ropes

"A common thread, often discussed, is the rope industries' ability to 'fine tune' rope materials to meet the challenging and rapidly changing requirements of the Coast Guard. There is a continued push for lightweight materials that increase safety, are easier to handle to reduce labor hours and are more suited to the changing demographic of Coast Guard crew personnel."

with higher strength and smaller diameters have outstanding handling properties, combined with high energy absorption capability and abrasion resistance. For example, when compared to a steel wire rope of the same size, these new ropes will match the breaking strength at only 20% of the weight.

Rope construction, too, has played a part. In addition to the traditional 12 strand rope constructions, four and seven strand wire lay constructions have emerged for dock mooring lines, (floating) dry dock tending lines, breast lines, storm lines. As well as being stronger, these ropes are easier to splice. Typically, they comprise four aramid fiber strands around an independent synthetic core, with a range of jacket types to protect the rope from abrasion and thus increase rope service life. Typically, ropes are supplied with an eye splice suitable for the size of quayside bollard. As part of their training, coast guard personnel are taught how to splice ropes in the event the rope is damaged, or, conversely, simple wear and tear dictates part of the rope be removed.

Taking advantage of the broader rope selection, Coast

Guard vessels use a mix of ropes for mooring and towing that on one hand provide the levels of service needed, but also raise the bar for rope knowledge and handling.

Compared with steel wire ropes, fiber ropes need more careful handling. The desire to reduce the effects of abrasion on the rope caused by rubbing against a rough surface on a bollard, for example, has led to the development of jacketed ropes where the core load bearing rope is protected by a non-load bearing jacket made from a hardy, resistant yarn. While the jacket does a great job, it can make the ropes difficult to inspect for signs of damage. If damage to the rope is suspected, the rope industry recommends the jacket be cut and a visual inspection made after which the jacket can be repaired. Ropes breaking in service is a rare occurrence and is generally caused by shock loading or overloading the rope. To provide early warning of a rope failure, reduced recoil ropes have been developed in consultation with both the U.S. Navy and Coast Guard.

Reduced Recoil

So far, fiber ropes made from Dyneema (high modulus polyethylene) and Aramid (Twaron or Kevlar) have been developed with a reduced recoil feature. In the event the rope has been overloaded previously, one of the rope strands will break giving an early warning that the line is about to fail, allowing crew to get to safety before the line completely parts. The sequential strand break technology together, with the rope's outer abrasion resistant, protective jacket, significantly reduces the effect of the rope's recoil. This is an important safety feature which is now mandated on many US Navy and Coast Guard vessels. These reduced recoil ropes have been specifically designed for mooring lines, headlines, and breast lines, but can be used for any application where rope overloading is a potential risk.

Safer Lifelines

The availability of high tenacity, high performance yarns and finishes has broadened still further the maritime applications for ropes. High tenacity polyester fiber, for example,

provides excellent dimensional stability in the manufacture of ropes for naval applications and is ideal where moderate elasticity may be useful, but superior strength and durability are essential. Both the Navy and Coast Guard have been quick to identify new and novel uses for these materials.

In particular, the Navy addressed the challenge of safety concerns emanating from using steel wire lifelines due to metal "fish hook" injuries and the risk of failure of corrosion-weakened steel wire ropes. Aramid fiber ropes, on the other hand, provide the strength and low-stretch characteristics of steel, yet are also lightweight and noncorrosive, making them an ideal replacement for steel cables in hand rails, as well as jackstaff and canopy-awning lines, boat gripes and spanwires, lashing ropes and rigging lines and boat davit preventer stays.

Antennae Enhancing

An unexpected side effect of replacing ship steel hand rails with Aramid has been a significant improvement in antenna received and transmitted signal patterns. The dielectric properties of Aramid, and other fiber ropes, coupled with its electrical transparency has eliminated Inter-modulation interference (IMI) and Electromagnetic interference (EMI), as a result the US Navy and Coast Guard have approved Phillystran rope for mast and antenna stays. Replacing steel wire stays with fiber rope also removes the need for painting, greasing, and de-icing. Moreover, the rope's resistance to corrosion from sea water and stack gases greatly increases the length of service life.

Unlike mooring and towing ropes, mast and antenna stays require a special termination where the Aramid is bonded to the end termination. Typically, these Aramid fibers terminations can have up to 1.7 million pounds breaking strength and are supplied as a complete assembly and fabrication for Lifeline and Flagstaff guy lines based on Navy approved, termination technology.

Beyond Safety – Sustainability Also Counts

It is safe to say – no pun intended – that the U.S. Coast Guard's selection and use of high performance synthetic fiber ropes places it at the forefront of maritime rope users. Along the way, virtually every opportunity to take advantage of the benefits of fiber ropes over steel wire has been taken. Looking ahead, and acknowledging the growing concerns about sustainability and the maritime environment, the Navy along with the rest of the maritime industry is now being challenged to look at alternatives to current rope disposal practices and in doing so, is taking into account the whole life cycle of their ropes.

Polymers used in fiber rope yarns are not biodegradable and so Phillystran has begun looking at ways to repurpose the ropes when they reach the end of their service life. To that end, it is drawing on Lankhorst Ropes' rope recycling know-how within the wider WireCo WorldGroup where the company has successfully recycled rope yarns as alternative plastics products such as picnic sets, plastic poles, planks and even complete landing stages, riverbank bank protection boards and bridges. The approach has been to design the rope to be recycled at the outset. Phillystran is deploying a similar methodology with ropes that continue to set the pace for fiber rope performance while building in recyclability. The number of recyclable ropes is relatively small at the moment but growing. For example, and over the next 5 years, it is expected that the majority of Naval and Coast Guard ropes will be recyclable.

The U.S. Navy and Coast Guard's willingness to embrace the use of fiber ropes has encouraged manufacturers to raise their standards and ability to provide technical support, as well as advice on rope selection, construction and terminations. It also challenges the rope manufacturer to raise their game from supplier to 'problem solver' in a constructive working environment where both sides are looking to achieve a common goal – excellence in the application of fiber ropes – before, during and then after the lifespan of that rope has expired.

Brian Hostetter *is Marine Sales Manager at Phillystran, a WireCo WorldGroup company, based in Philadelphia. A technical sales professional, Brian has worked in the Maritime (Navy) and Oil and Gas market for the past 10 years since joining Phillystran in 2004.*

When it comes to Water Treatment, *Experience Counts*

Scienco/FAST, an experienced manufacturer of Marine sewage devices (MSD) recently received an extraordinary service order. Or, maybe it's not that extraordinary.

Scienco/FAST, a St. Louis, Missouri-based manufacturer has, over many years, had plenty of experience in dealing with archived orders. In fact, the firm just had a call from a client that needed to replace a part on a previously installed Scienco/FAST system. So what? Well, it turns out that the system was installed onto a domestic tugboat, way back in 1975. That more-than-43-year-old workhorse is still in service. And, so too is the Scienco/FAST system that's been on board since it was launched.

For its part, Scienco/FAST says that this is just one, of countless typical examples of how long the overbuilt Marine/FAST units can last. Over time, Scienco/FAST has installed more than 3,000 units aboard towboats, tugs, offshore supply vessels, diving support vessels, semi- submersibles, offshore platforms, drill ships, crane barges, pilot boats, war ships, shop and office barges, container ships, tankers, bulk carriers, research vessels, icebreakers, survey ships, school ships, river towboats, harbor tugs, cruise ships, and float homes. Hence, there is a Scienco/FAST solution for virtually any commercial marine requirement.

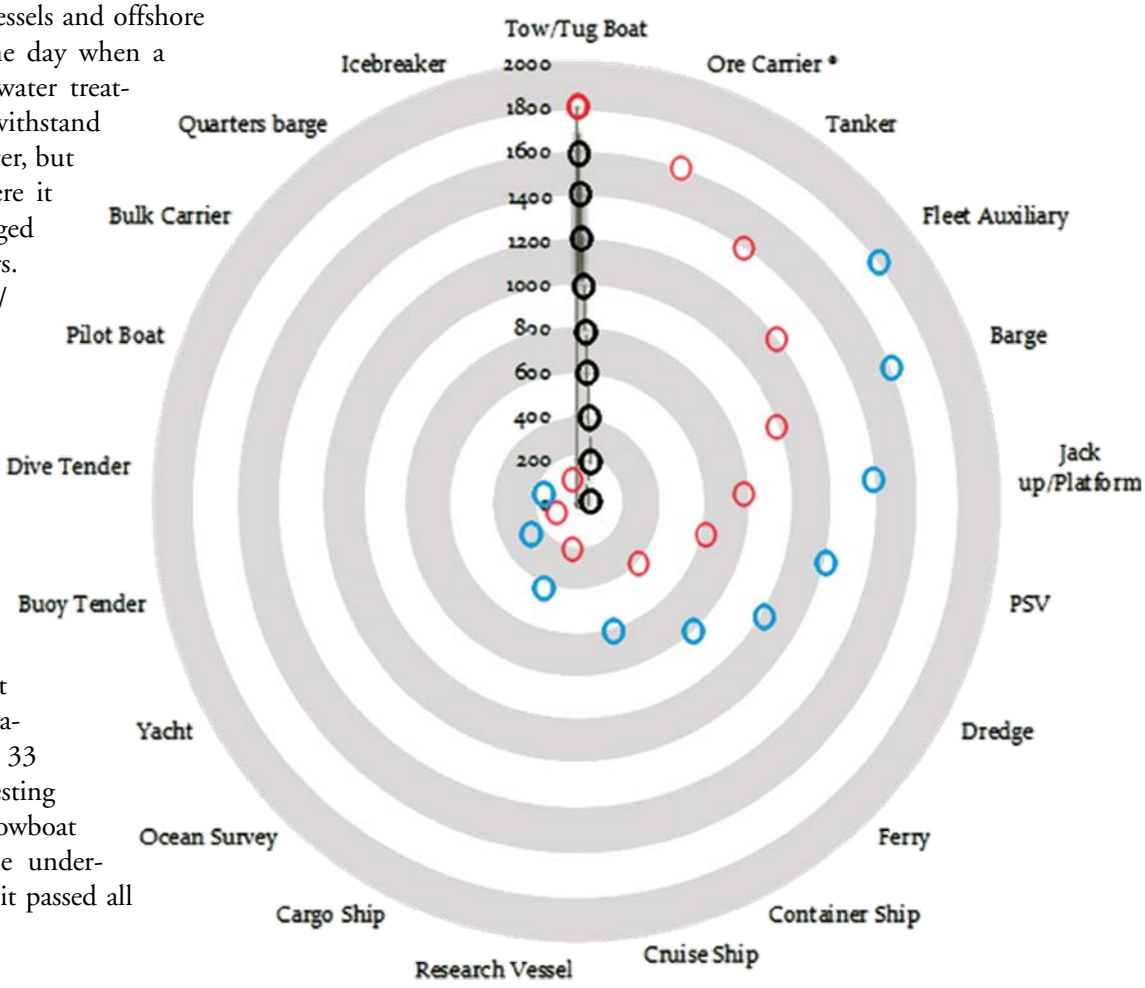
Many Markets make better MSD's

The firm's marine offerings emanate from its (perhaps) better known land-based division and parent company, Kansas-based BioMicrobics. In that space, the firm boasts over 65,000 installs worldwide using the FAST system in various applications from homes to small municipalities and public/private commercial properties. More than 40 years of research, development and real world operating history for water, wastewater, greywater, and stormwater treatment get packed into every MSD that takes last line on a commercial mission.

Scienco/FAST has customers that have purchased the sturdy Marine/FAST systems for use mainly in their

workboats and tugs, but have several on Carriers, Tankers, Barges, and other types of vessels and offshore platforms. Too voluminous to list in this article, the Scienco/FAST client and install list since 1975 spans 36 pages, thousands of systems, and reads like "who's who" of domestic inland operators, with dozens of repeat clients. In fact, the list of installs, which Scienco/FAST updates daily, includes some of the biggest names in the marine business, such as ARTCO, ACBL, Ingram Barge, Military Sealift Command, US Corps of Engineers, USCG, US Navy including two Aircraft Carriers, the Canadian Royal Navy and Coast Guard, American Steamship to name just a few.

Robert Rebori, Scienco/FAST President, explains it best, saying, "It all started in 1969, when St. Louis Ship Building Co. occupied the same ground on which James Eads built ironclads for the Union Navy during the American Civil War. At the time, they were their own guinea pigs, installing and monitoring equipment on their own towboats. While also equipping other towboat customers to provide repair work, this gradually expanded the St. Louis Ship additional services and capabilities into other classes of vessels and offshore structures. There came the day when a customer needed a wastewater treatment system that could withstand the jostling out on the water, but also treat the sewage where it could be reused or discharged into the receiving waters. The prototype Marine/FAST sewage treatment system was installed aboard the towboat M/V Missouri while the vessel was underway. It was an immediate success." And, the rest is history.



Scienco/FAST Evolves with Regulatory Change

In 1975, The U.S. Coast Guard issued a rule on Marine Sanitation Devices; 33 CFR Part 159. Official testing was done aboard the towboat M/V United States, while underway, the Marine/FAST unit passed all

tests and Marine/FAST obtained USCG certification.

Later still, in 1978, Canada issued their Pollution Prevention Regulations for the Canadian waters of the Great Lakes. At that time, it was the strictest marine standard in the world. A production FAST Model 40D with UV disinfection passed all tests with results that exceeded expectations from laboratory personnel. Additional tests were run for the U.S. Coast Guard with chlorine disinfection and the results were similarly outstanding.

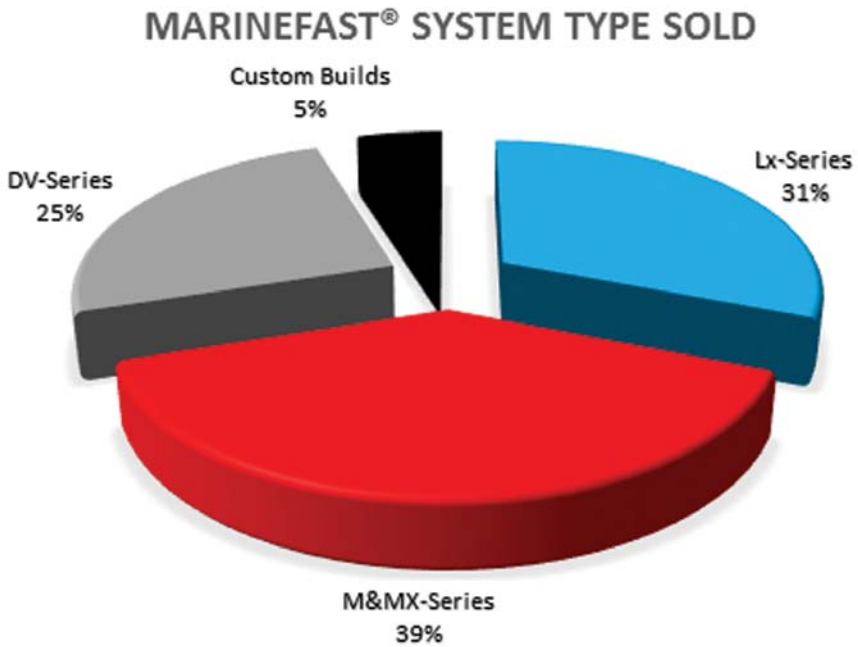
Standing up to the test of time, in 2011, one of the first Marine/FAST units ever sold was finally retired after 38 years of continuous commercial marine service. The operator replaced it with another Marine/FAST unit. That said; it is not unusual to see a vessel to scrap, and before that happens, for the operator to remove the Marine/FAST units and transfer them to newly purchased vessels. Although FAST process technology is state of the art, the components are simple and economical. The internals of any existing Marine/FAST unit can be brought up to the latest configuration and upgraded as required to meet the newest regulations.

Ultimately, and in 2012, the Coast Guard certified all standard and custom Marine/FAST Models under MEPC.159(55) and NVIC No. 01-09. Transport Canada certified all standard and custom FAST Models under Regulations for the Prevention of Pollution from Ships and for Dangerous Chemicals (SQR/2007-86).

Then and Now:

Scienco/FAST provides long term technical support from its St. Louis offices to customers at no charge and has done so for many years. When on-site service is required, it is available worldwide. At a time when many of the firms that obtained marine sewage treatment certifications in the 1970's are no longer active or even in business, Scienco/FAST remains as an industry constant.

And, when it comes to marine sanitation and sewage treatment, the only constant seems to be change. In fact, the future of marine sanitation is already here, since the Great Lakes now treats gray water as sewage. Not to worry: the professionals at Scienco/FAST are, as always, looking to the future, leveraging their robust past. That's one constant that won't ever change. **www.sciencoFAST.com**



Insuring the Marine Industry's Risky Work Environment

Credit: Shutterstock

From high-traffic ports to bustling boatyards, and busy shipyards to expanding marinas, marine professionals operate in a challenging environment. They work on land, on or around water, and are exposed to all kinds of weather. And the challenges won't ease up any time soon.

Our nation's ports continue to expand as trade surges. Add in increased commercial vessel traffic and recreational boating, and it's clear that marine businesses have to be in shipshape condition. It means that the marine insurance industry has to stay on its toes too, making sure that its products keep these businesses afloat.

Today's Working Environment

Take a look around today's marine environment. Ships are getting bigger and more abundant. The average size of container vessels navigating US ports has grown considerably over the past five years. According to data from BlueWater Reporting, as of August 2018 the average containership size transiting the Panama Canal was 6,846 TEUs, up 5.4 percent from a year ago, and up 48.6 percent from three years earlier. Cargo moving through America's ports has increased over the last two decades, with annual growth between 3-5%.

To make room, many ports are making improvements and accommodations to provide appropriate water draft, berth size, terminal space, suitable size dock equipment and rail connections. The Port of New York and New Jersey had to raise the Bayonne Bridge between New Jersey and Staten Island to increase the clearance capacity. The Port of Virginia is widening its shipping channels and deepening them to 55 feet. The Georgia Ports Authority has begun the Savannah Harbor Expansion Project. This will deepen the 18.5 mile outer harbor to 49 feet at mean low water and the Savannah River channel to 47 feet. The port will more efficiently serve larger vessels due to the Panama Canal's expansion.

Insuring the Maritime Hustle and Bustle

Situational awareness has always been a key component in navigating any vessel. But, given the increased traffic and activity in and around our waterways, it's an even bigger component of any marine business' risk management strategy.

Expansion activities create many exposures for maritime operations. For the marine insurance industry, the challenge is to develop products that address marine construction's unique risks. We need to make it as easy as possible for businesses to buy appropriate coverage, and avoid gaps in their coverage that could expose them to out-of-pocket financial losses.

Taking on Builder's Risk

Builder's risk is a key coverage for marine operations. As America's vessel fleet ages and retires, Boat Builder's Risk can insure new vessels under construction and during trial runs. Vessels constantly undergo repair and maintenance, for which Ship Repairers Legal Liability insurance applies.

The inland marine insurance industry provides Builder's Risk coverage for a wide range of buyers including general contractors, owners, developers, and specialty trade contractors. Some carriers offer very inclusive Builder's Risk and Installations coverage that can be further tailored with endorsements. Endorsements allow businesses to adapt insurance to their project needs, including:

- *Green Coverage*
- *Contingent and Difference in Conditions*
- *Rigger's Liability*
- *Existing Buildings or Structures*
- *Soft Costs, Business Income and Extra Expense*
- *Permission to Occupy*
- *Equipment Breakdown*
- *Flood, Earthquake and Volcanic Eruption*

Available coverage also includes protection from variable costs that are often overlooked, such as an increase in construction costs, site preparation, extra and expediting expense, contract penalty, rewards, reimbursement for returning stolen property, loss adjustment expense, ordinance or law, fire department service charges or expenses related to debris removal, pollution cleanup, among others.

Contractor Coverage Challenges

While Builder's Risk protects projects under construction, those businesses actually carrying out the construction work have their own unique risks to address. Marine contractors share the waterways with a growing volume of vessels, but their vessels are restricted in navigation, often working at a fixed location (such as a bridge) while using specialized vessels and equipment. They often work around the clock, which increases their collision exposures significantly. Conditions can change quickly, such as when adverse weather storms in.

Given the hazardous nature of marine contracting work, it's essential to have comprehensive insurance protection that directly addresses their diverse, day-to-day exposures. Contractors' insurance often consists of such coverages as:

- *Marine General Liability includes coverage for products and operations liability for work performed from watercraft.*
- *Marine Contractors' Liability provides coverage for property damage to marine structures.*
- *Commercial Hull and Protection & Indemnity (P&I) protect vessel owners against physical damage to the ship and legal liability.*
- *Bumbershoot (umbrella) provides excess liability coverage for companies with major marine exposures. Such policies cover both non-marine and maritime liability exposures—that is, protection and indemnity, general average, collision, general liability hazards, among others.*
- *Contractor's Equipment coverage provides protection for equipment including borrowed, leased or rented equipment, contract penalty, employee tools and work clothing.*
- *Property includes insurance for buildings, contents, and business interruption.*
- *Auto can also be packaged with the marine contractors program.*

Safeguarding Workboats

Workboats are an essential part of marine operations, especially in today's busy maritime environment. They represent many different types and sizes of vessels that are used for a wide range of tasks. These include maintaining waterways, assisting with launches at a marina, performing dock inspections, and carrying out a host of other duties. Given increased activities everywhere from marinas to ports, their workloads are increasing and consequently, so are their risk exposures.

While these boats may be smaller in stature, they still have significant exposures, including the risk of third party liability or hull damage from an accident or natural catastrophe. Fortunately, workboat owners can purchase insurance on a standalone basis or as part of an integrated

offering including the coverages listed above. Standalone Workboat Coverage typically includes Hull coverage, Protection and Indemnity (P&I), physical loss or damage to equipment, trailers, sails, machinery, as well as crew coverage, by request.

Wrapping Up

Marine businesses are working under very challenging conditions. The good news is that these circumstances are present because of the growing need for marine services – whether it's shipping more containers or building new infrastructure. There is a lot of hustle, bustle and business being conducted.

The marine insurance industry plays a vital role in keeping trade and infrastructure afloat. It's taken this role very seriously, continuously developing comprehensive and innovative insurance coverages designed for specific marine business activities. Today's marine and inland marine insurance coverages are packaged together to streamline the insurance buying process, as well as to eliminate possible conflicts or gaps in coverage, all with the intent of keeping the marine industry's profits above water.

AXA XL Insurance Reinsurance

Stephen Clark is the National Hull & Liabilities Practice Leader for AXA XL's North America Marine team.

Mike Perrotti is the Inland Marine Practice Leader for AXA XL's North America Marine team.

Round the Clock Business Demands Seamless Communications

Network Innovations and its inland waterways connectivity solution eliminates "dead spot" coverage woes. And, not a moment too soon.

By Joseph Keefe

The bane of inland operators – or at least one of many – has always been the dearth of reliable and economical vessel-to-shore communications. Even in America's heartland where cellular coverage is routinely billed as seamless, so-called 'dead spots' persist. Sometimes, this happens at the worst possible moment for an operator who has myriad far flung assets on dozens of remote inland waterways. For a long time, satellite service has not been deemed economically feasible for inland operators. Beyond that, unlike blue water deep sea operators, there was little need to download data or employ software solutions in every day operations. Until now.

Spotty cellular coverage – indeed using cellular coverage as a primary tool – became even more of a problem as the brown water industry caught up to its blue water cousins in terms of modern methods of vessel, operations and safety management. The issue is only likely to become more pronounced as subchapter M requirements continue to impact the more than 5,000 previously uninspected vessels that ply inland waters today. It turns out that software and better vessel-to-shore communications will play a much bigger role in the coming years. Hence, the traditional (read: good enough, but not quite ideal) cellular solution might just go the way of the inland operator with no safety management plan.

Actually, and according to satellite communications integrator Network Innovations and Dunlap Towing, there is a better way. For its part, Dunlap Towing, a west coast-

"Because of our strong partner relationships in the North West Pacific region, my local dealer was able to connect Network Innovations to Dunlap allowing us to provide a perfect solution that not only supports their business today, but well into the future."

– Matt George, Vice President Global Maritime Sales for Network Innovations

based tug operator – has overcome the usual "dead spot" problem and the dropped calls associated with remote communications using Inmarsat's Fleet One Service. And, satellite communications integrator Network Innovations was the conduit that made it happen.

Case Study

Dunlap Towing Company, a marine transportation services provider for almost a century, offers towing and assist services throughout the Puget Sound, along the Pacific Coast into Canada, to Alaska including remote ports above the Arctic Circle, and across the Pacific Ocean to Hawaii and beyond. But, for Dunlap, who operates a 12-Vessel Fleet, it has been the coastal routes around Dutch Harbor and the Pacific Coast that have traditionally been challenging with patchy service and limited access to communication networks. Most satellite and terrestrial services did not offer the always-available connectivity required to transmit important operating and safety reports or make critical inter-fleet voice calls. The team at Dunlap were frustrated and realized they were wasting time and money on a service that could not meet their needs in remote coastal waters.

With Dunlap's operating routes extending to Hawaii, as well as the Pacific Northwest and Bering Sea, the company needed a service that could accommodate its coastal requirements and support its longer open water routes providing a reliable, guaranteed connection. Ultimately, Network Innovations assessed Dunlap's requirements and presented the Inmarsat's Fleet One Service with Cobham's Fleet One hardware as the ideal solution.

One Solution, Economical Results

With Fleet One, regional vessel operators can stay connected without having to worry about cellular availability or network roaming charges. That's because Fleet One gives vessel managers and owners the assurance they can stay connected at all times ensuring operational continuity and fleet communications. Nevertheless, price – especially for coastwise and inland operators – is always a perceived issue when it comes to satellite solutions. And, Dunlap Towing is no less thrifty than the next workboat operator.

Fleet One provides a diverse range of plans and options to fit a variety of needs. Dunlap selected the Pacific Northwest Regional Plan as a cost-effective option that would allow the tug fleets to talk vessel-to-vessel for up to 30-minutes for free plus the ability to have coverage in the open sea.

Matt George, Vice President Global Maritime Sales for Network Innovations, explained, "Because of our strong partner relationships in the North West Pacific region, my local dealer was able to connect Network Innovations to Dunlap allowing us to provide a perfect solution that not only supports their business today, but well into the future." He added, "Fleet One and the Pacific Northwest Plan work together allowing companies like Dunlap to expand their businesses, routes, and services knowing their

communication technologies are supported by strong, experienced partners. The support teams are great. They respond quickly via phone or email. It is nice to know that at any time, we can pick up the phone and call the tugs no matter where they are and the crews can do the same."

Utilizing Fleet One, Dunlap has eliminated the patchy coverage on all of its operating routes from Hawaii to the Aleutian Islands. Now its vessels can reliably access full-color weather images, navigational charts and routing information, as well as sending/receiving reports, browsing the web, send/receive emails, text and talk close to shore and at sea. With Inmarsat's free 505 Emergency Calling service included, Fleet One provides an additional level of safety for its crew.

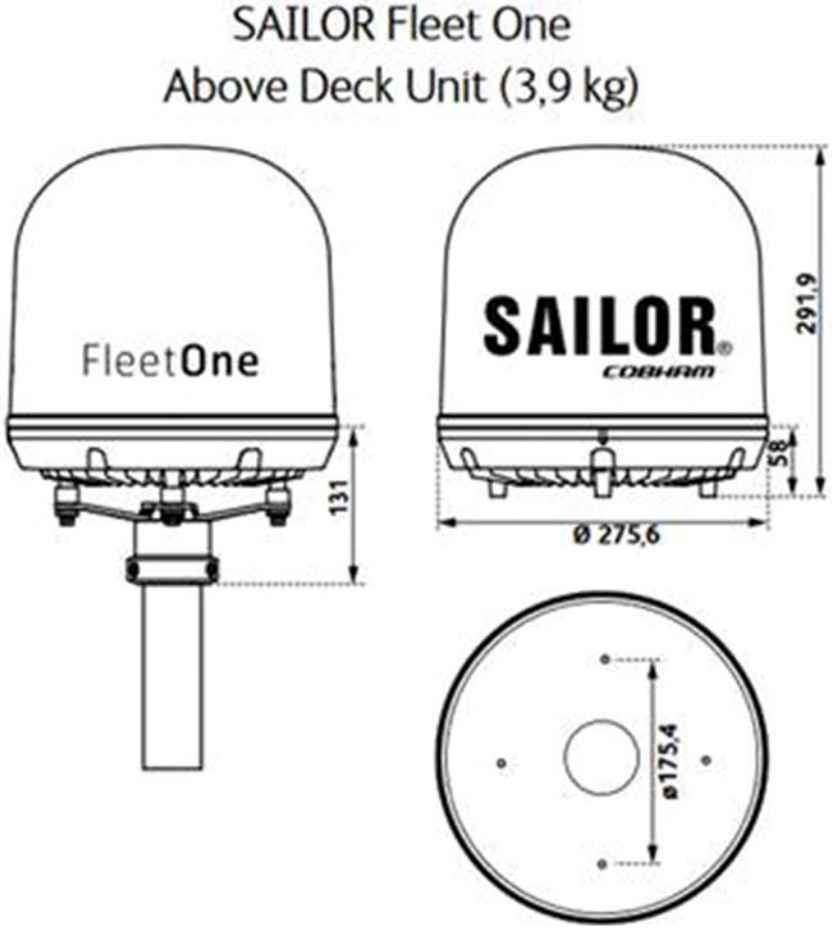
Since installing Fleet One, Dunlap has switched to as pure satellite solution. And, where some might think that satellite service is too expensive, Dunlap has experienced exactly the opposite outcome. "Since we have started using Fleet One, our tugs are able to travel to remote areas without interruptions, our monthly bills have been cut in half, dropped calls and missing reports don't happen anymore," said Jack Sanford, Inside Operations Manager, Dunlap Towing Company. Ultimately, Dunlap made the switch to Fleet One in March of 2017 and has never looked back. That's in part because Fleet One equipment is always activated and ready for use, while data capability is normally off until enabled. Voice is always active ready to be used.

Inland Economy

For tug operators – indeed any workboat stakeholder – space is always at a premium. And, big things can come in small packages. The Network Innovations solution for inland and coastal operators incorporates a compact antenna that easily installs on tugs and pushboats. For Dunlap, this solution was an ideal one, especially since their equipment travels to many remote places, as well as in close proximity to inland routes. That said; inland-only operators have long felt that the cost of satellite service could not be supported in their business plans. That might be about to change. For example, coastal services start at $28 per month, $0.49 per minute for voice, and $4-5 per MB for that all important data download in an increasingly tech heavy inland business climate.

Increasingly, today's tug and barge operators employ software and data packages to run their safety and management systems. Syncing these systems between vessel and shore is important. The Fleet One service currently supports a download speed of up to 100kbps with later plans in the works to raise it to 150kbps.

Incorporated in 1988, Network Innovations (NI) is a satellite communications integrator, focused in the provision and support of systems which enable its customers to communicate anywhere on the planet. In this case, the advent of satellite communications for non-traditional users – such as inland and coastal operators – heralds a new and more affordable option that satisfies an increasingly hungry inland appetite for uninterrupted communication, faster and more robust data downloads, and, of course, that extra competitive advantage that can mean the difference between robust profits and those dreaded 'dead spots' that spell failure.



Spotlight on Petroleum Barge Power

Credit: Jim Demske

Vane Brothers Company is committed to the safe handling and delivery of petroleum and chemical products. John Deere PowerTech marine engines will always be there, when they do.

Vane Brothers Company's white tugboats, distinguished by their large blue "V," are a familiar sight while pushing barges on the Baltimore waterfront. Founded in 1898 as a quaint ships' chandlery, Vane Brothers has become a large American marine services firm and a major transporter of oil, asphalt, and other liquid products along the Eastern Seaboard.

The company teams 45 robust, purpose-built tugboats with 75 rugged, double-skin barges equipped to carry from 1,590 to 22,258 cubic meters (10,000 to 140,000 barrels) of product out of eight port-based locations in New York, Philadelphia, Baltimore, Norfolk, Charleston, Savannah, Jacksonville, and Tampa Bay.

"Vane Brothers is a family-owned business with a deep and rich maritime history as vessel operators and ship chandlers, going back to the days before internal combustion engines and screw propellers even existed," says C. Duff Hughes, Vane Brothers president. "Our company has

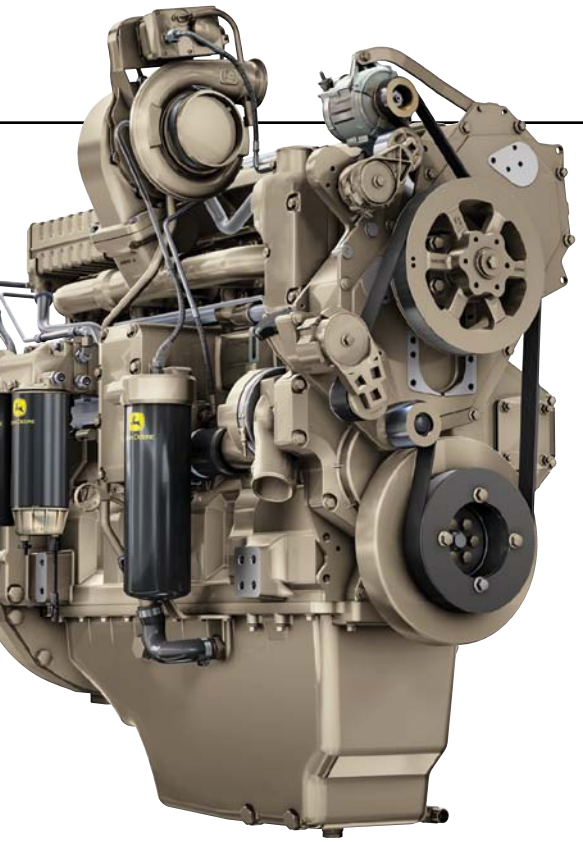
consistently grown, diversified, and successfully adapted to changing times in the industry. That's why we're able to celebrate 120 years in operation this year."

As part of its recent growth initiative, Vane Brothers is having Conrad Industries of Amelia, Louisiana, build three new barges, each equipped with seven John Deere PowerTech marine engines.

The three Double Skin (DS 801-803) barges measure 123 by 22.5 meters (405 by 74 feet) and can carry petroleum products in an amount that is equivalent to about 11,323 metric tons (83,000 barrels). Each barge is equipped with three 250-kWe generator sets powered by 6135AFM85 marine engines. The radiator and fan assembly for each of these generators is remote mounted about 9 to 12 meters (30 to 40 feet) away. "We did that to improve heat rejection and to address space limitations within the machinery space," explains Steve Magdeburger, special project manager for new barge construction at Vane Brothers.

Each barge is equipped with three 6135HF485 auxiliary deck engines. Two drive centrifugal pumps with a combined pumping capacity of approximately 1,091 metric tons (8,000 barrels) per hour. The other powers an OmniThruster bow thrusters In addition to the auxiliary deck engines, the barge is equipped with a 99-kWe emergency standby generator powered by a 4045AFM85 engine.

All engines are certified by the American Bureau of Shipping (ABS). John Deere engine distributor, *engines, inc.*, packaged the engines and designed the remote radiator and fan assemblies. Devall Diesel Services, a John Deere



marine engine dealer, then supplied Conrad Industries with the 21 engines and radiators. Vane Brothers has an extensive history with John Deere. The company believes in standardization of equipment for many beneficial reasons. Magdeburger says shoreside and afloat personnel are very familiar with John Deere because they use the engines throughout the fleet on both tugs and barges.

"We have many John Deere engines in our fleet that are prime movers or that power generator sets," Magdeburger reports. "So we already have a healthy inventory of spare engines and parts. And we have built strong relationships with John Deere dealers throughout our area of operation along the East Coast. When it comes to engine reliability and consistency over the long haul, John Deere doesn't let us down."

"My customers are the mariners who operate and maintain the equipment," he adds. "I strive to meet their requirements and expectations for safety, ease of operation, and maintenance. Truthfully, once a John Deere-equipped vessel enters service, I rarely hear of an issue related to the engines. And if I do, I'm confident that the John Deere support network will step up and help us resolve the issue in an efficient and timely manner. I've been very pleased with John Deere."

Prime movers, gensets and/or main propulsion, Vane has embraced the John Deere in all phases of their business. Like the reliability that John Deere has become famous for, that's not about to change any time soon.

Marine News 2019 Editorial Calendar

JANUARY

AD CLOSE: DEC 21

Passenger Vessels & Ferries

MARKET FEATURE: **Training & Education**

TECHNICAL FEATURE: **Driveline- Shafts, Seals Bearings**

PRODUCT FEATURE: **Pumps, Piping and Valves**

SPECIAL REPORT: **Simulation Tech & Trends**

EVENT DISTRIBUTION

PVA Maritrends: Jan 17-20, New Orleans, LA
Great Lakes Waterways Conference: Feb 5-6, Cleveland, OH

FEBRUARY

AD CLOSE: JAN 18

Dredging & Marine Construction

MARKET FEATURE: **U.S. Coast Guard**

TECHNICAL FEATURE: **Communication Technology – Satcom, Radios and Cellular**

PRODUCT FEATURE: **Water Treatment, Ballast, Grey, Drinking**

SPECIAL REPORT: **Inland Port Development**

EVENT DISTRIBUTION

Inland Waterways Conference: Mar 19-20, Cincinnati, OH

MARCH

AD CLOSE: FEB 15

Pushboats, Tugs & Assist Vessels

MARKET FEATURE: **Winches and Capstans**

TECHNICAL FEATURE: **Naval Architects**

PRODUCT FEATURE: **Hybrid Drives**

SPECIAL REPORT: **Thrusters & Inland Propulsion**

EVENT DISTRIBUTION

Shipping 2017 (CMA), April 2-4, Stamford, CT
Clean Waterways, April 16-18, Cincinnati, OH
NACE Corrosion, March 24-28, Nashville, TN

APRIL

AD CLOSE: MAR 15

Boatbuilding, Construction & Repair

MARKET FEATURE: **ATB's**

TECHNICAL FEATURE: **Coatings/Corrosion Control**

PRODUCT FEATURE: **CAD/CAM Software**

SPECIAL REPORT: **Arctic Operations**

EVENT DISTRIBUTION

IRPT Conference

MAY

AD CLOSE: APR 17

Inland Waterways

MARKET FEATURE: **Offshore Vessel Repair & Maintenance**

TECHNICAL FEATURE: **Management & Operations Software**

PRODUCT FEATURE: **Marine Jets and Thrusters**

SPECIAL REPORT: **Subchapter M Update**

EVENT DISTRIBUTION

Inland Marine Expo: May 20-22 St. Louis, MO
Tugnology: May14-15, Liverpool, UK
OTC: May 6-9, Houston

JUNE

AD CLOSE: MAY 17

Combat & Patrol Craft Annual

MARKET FEATURE: **Salvage & Spill Response**

TECHNICAL FEATURE: **Marine Cranes for Small Craft**

PRODUCT FEATURE: **Passenger and Crew Safety Equipment**

SPECIAL REPORT: **Outboard Engines**

EVENT DISTRIBUTION

SeaWork: June 26-28, Southampton, UK
MACC: / TBA Dates & location

JULY

AD CLOSE: JUN 13

Propulsion Technology

MARKET FEATURE: **Lubricants, Fuels & Additives**

TECHNICAL FEATURE: **Safety & Fire Prevention**

PRODUCT FEATURE: **Workboat Engines**

SPECIAL REPORT: **Ballast Water Treatment**

AUGUST

AD CLOSE: JUL 19

MN 100 Market Leaders

MARKET FEATURE: **Boatbuilders**

TECHNICAL FEATURE: **Marine Operators**

PRODUCT FEATURE: **Cordage, Wire Rope & Rigging**

SPECIAL REPORT: **Energy Efficiency Systems**

EVENT DISTRIBUTION
Seatrade Offshore Marine & Workboats:
Sep 23-25, Abu Dhabi, UAE

SEPTEMBER

AD CLOSE: AUG 21

Vessel Conversion and Repair

MARKET FEATURE: **Offshore Wind**

TECHNICAL FEATURE: **DP Equipment & Training**

PRODUCT FEATURE: **Hull and Deck Coatings**

SPECIAL REPORT: **LNG as a Fuel – Where are we?**

EVENT DISTRIBUTION
Shipping Insight: Stamford, CT
Clean Gulf: Nov 2-5, Houston, TX
Interferry 2019: Oct 5-9, London, UK

OCTOBER

AD CLOSE: SEP 16

Autonomous Workboats

MARKET FEATURE: **Multi-Mission Workboats**

TECHNICAL FEATURE: **Communications**

PRODUCT FEATURE: **Electronics & Navigation Equipment**

SPECIAL REPORT: **Shipyard Exports**

EVENT DISTRIBUTION
SNAME: Oct 29- Nov 2, Tacoma, WA

NOVEMBER

AD CLOSE: OCT 18

Workboat Annual

MARKET FEATURE: **Outfitting Today's Workboat**

TECHNICAL FEATURE: **HVAC / Ventilation**

PRODUCT FEATURE: **Deck Machinery-Winches and Cranes**

SPECIAL REPORT: **The Digitalization of Workboats**

EVENT DISTRIBUTION
Workboat Show: Dec 4-6, New Orleans, LA

DECEMBER

AD CLOSE: NOV 15

Innovative Products & Boats – 2019

MARKET FEATURE: **Fire, Patrol & Escort Craft**

TECHNICAL FEATURE: **Emissions Compliance and Monitoring**

PRODUCT FEATURE: **Fire & Safety Equipment**

SPECIAL REPORT: **Top 10 Stories for 2019**

EVENT DISTRIBUTION
SNA 2020 - Crystal City, VA

Information may be subject to change

Jensen's Design for Shaver Transportation's New Tugboat

Jensen Maritime, Crowley Maritime Corp.'s Seattle-based naval architecture and marine engineering company, has provided the detailed design for Shaver Transportation Company's new, Z-drive tug – Samantha S. The multi-purpose tug was built at Diversified Marine Inc., in Portland, Ore., and is operating along the West Coast. The tug is ABS-classed and carries a FFV1 firefighting notation.

The 112-foot by 44-foot tug has a 22-foot draft, was built for escort, ocean towing and ship assist, and has firefighting capabilities if needed. The tug features a raised pilot house and a squared forward end. The large, flat bow allows the tug to come up flat against the transom of ocean-going ships in the Columbia River. The tug is equipped with two wire winches forward, and six aft, for hard wiring to the stern of large ships for escort.

Fuel: 108,000 gallons	Main Engines: (2) GE 12V250 EPA Tier IV	Main Engine HP: 4,218 HP each
Berthing: 10 crew	Generators: (2) EPA Tier III, JDPS 6090A	Escort Winch: Rapp HA-149H-250
Fire Pump Plant: CAT C32	Tow Winch: Rapp double drum AHTW-75H-165	Deck Winch:(8) Wintech 120t(SWL)
Bollard Pull: ~230,000 LB	Z-Drives: (2) Rolls Royce 305, four-bladed	Firefighting Capacity: 12,000 gpm

Gladding-Hearn's Refitted Launch Ready for 14 More Years on Delaware Bay

Gladding-Hearn Shipbuilding, Duclos Corporation, has delivered a retrofitted pilot boat to the Delaware Bay pilots association. Brandywine, one of the shipyard's early 53' Chesapeake class launches built in 2004, is one of nine pilot boats built for the pilots since they took delivery of their first boat from the Mass. shipyard in 1957. Along with installing new shafts and Brunton propellers, the yard replaced the twin Daewoo 650 Bhp diesel engines with a pair of Volvo D16 EPA Tier-3-compliant 650 Bhp diesel engines, each delivering the same output at 1800 rpm as the original engines with a top speed of 25 knots. The new engines are connected to ZF 500-1A gear boxes. The yard also converted the engine cooling system from seawater cooling to keel cooling, using Fernstrum grid coolers. A Humphree interceptor trim control system, with automatic trim control, was installed at the transom. The hull's fendering system was replaced with Duramax replacement rubber, along with additional diagonal strakes aft.

Bouchard Barge NO. 295 Completes Major Overhaul

Bouchard Transportation Co., Inc. announced that Bouchard Barge No. 295 has completed a major overhaul. Approximately 90% of the B. No. 295's main deck plate has been replaced, freshly painted and triple-coated. New internal coatings have been applied, along with the installation of new anodes on the hull and in the ballast tanks to protect the hull for many more years of service. Cargo and ballast pumps, and the thermal oil cargo heating system has been entirely overhauled, and the hose-handling cranes have been rebuilt. Additionally, the deck and navigation lighting, and electrical cabling have been renewed. The B. No. 295 is equipped with all new hoses, lines, emergency response equipment, and a new gas detection system in the void spaces which provides early detection capability. A new anchor chain has also been installed, with an overhauled winch. With all work performed at Gulf Marine Repair in Tampa, Fl, the B. No. 295 is officially fit for immediate service.

Crowley's LNG-Fueled ConRo Taíno Completes Maiden Voyage

The second of Crowley Maritime's new combination container/roll-on roll-off "ConRo" ships – M/V Taíno, one of the first of its kind to be powered by liquefied natural gas (LNG) – completed its maiden voyage to Puerto Rico on Friday morning, January 11th. The successful transit begins a new era of world-class supply chain services between the island commonwealth, U.S. mainland and the Caribbean Basin. Taíno is the second of two ConRo vessels constructed for Crowley. Sister ship MV El Coquí began its first-in-class service in July 2018. Both were built specifically for the Puerto Rico trade. Crowley's Commitment Class vessels are part of an overall logistics system which increases supply chain velocity and reduces friction and landed costs for customers shipping through Jacksonville as a gateway to Puerto Rico and the islands of the Caribbean Basin.

Jensen Maritime Designs Tier IV Tractor Tugs for Foss

Jensen Maritime has provided the detailed design for an initial four, with an option for six additional, Tier IV tractor tugboats being built by Nichols Brother Boat Builders for Foss Maritime. The 90-short ton bollard pull tugs are based on Jensen's popular Valor tugboat design, of which 9 have been successfully built and deployed to date and an additional five remain under design/construction. Once delivered, the Foss tugs will be deployed along the U.S. West Coast. These 100-foot by 40-foot tugs are multi-functional to include ship assist and escort capabilities as well as towing. Powered by twin Z-drive propulsion units, the tugs will be suitable for offshore service, ship assist, escort, maneuvering and docking. The tugs feature a large fuel capacity for long trips, comfortable crew accommodations

and a spacious engine room along with an anchor windlass and chain locker. The tugs will come with a 900 GPM fire pump and monitor and will be Subchapter M compliant.

Gulf Island Delivers First of 10, Z-Tech 30-80 Terminal/Escort Tugs

Gulf Island Fabrication's Shipyard Division has delivered the M/V Mark E. Kuebler, a Z-Tech 30-80 Terminal/Escort Tug to Bay Houston Towing Company. The M/V Mark E. Kuebler was designed by Robert Allan and built at Gulf Island's, Jennings, LA facilities. The vessel will be operated by G &H Towing on behalf of Bay Houston Towing Company. Gulf Island is currently building nine (9) sister vessels that are at various stages of construction.

LOA: 98 feet – 6 inches	Designer: Robert Allan	Propulsion: (2) CAT 3516 E "C Rating" Tier 4
Beam: 42 feet – 8 inches	Horsepower: 6,772	Z-Drive: 2 X Schottell SRP 510 FP
Depth: 16 feet – 5 inches	Bollard Pull: 80 Tonnes	Class: ABS, A1, AMS, Towing Vessel, Escort, FFV1


O'Loughlin

Dixon


Greene


Miller


Thomas


Wakefield


Carpenter

Ingram Barge Company names O'Loughlin President & COO

Ingram Barge Company announced that **David O'Loughlin** has been named the company's new President and Chief Operating Officer. Most recently, O'Loughlin was Ingram's Senior Vice President for Vessel Operations & Customer Service. O'Loughlin holds a Bachelor's Degree from the University of Alabama and his MBA from Belmont University in Nashville. He succeeds Kaj Shah who will retire after almost 30 years at Ingram.

Dixon Takes Over as TOTE Services President

Captain **Jeff Dixon** has assumed the role of President of TOTE Services following the retirement of Rear Admiral **Phil Greene**. Dixon joined TOTE Services in May 2017 and has served as the Vice President of Marine Operations – Government and Commercial since starting with the company. Prior to that, Dixon was a captain in the U.S. Coast Guard and spent 27-years on active duty. Most recently he served in command of Sector Jacksonville where he exercised Captain of the Port authority. A graduate of the Coast Guard Academy in New London, CT, Dixon holds a Bachelor of Science degree in Management and Economics and later earned his Master's in Public Administration from the George Washington University.

DSC Dredge's David Miller Announced Retirement

In October, after 38 years in the dredging industry, **David Miller,** SVP/COO and part owner of DSC Dredge, LLC announced his retirement. Miller's career began in the early 1980's when he began working for Kenner Marine & Machinery (KMM). Following several consecutive KMM positions, David completed his final 10 years there as a field service specialist. Miller was one of the original founders of Best Equipment Technologies, Inc. (BEST). Partnered with the Wetta family, Miller helped found companies that provided essential services to the dredging industry. In 2010, these companies were consolidated into DSC Dredge, LLC (DSC) and the group forged ahead, enhancing its reputation as a world leader in the manufacturing of portable cutter suction dredges.

Cook Inlet Tug & Barge Announces Interim Manager

Cook Inlet Tug & Barge (CITB), a subsidiary of Foss Maritime Company, announced that Foss project manager **Amber Thomas** has been selected as interim Business Operations Manager for Anchorage. Thomas will serve as the central point person for administrative and commercial operations, leading shoreside activities in Anchorage and Seward. Thomas, a native of Alaska, graduated from the University of Idaho in 2007 with a Bachelors of Science. Thomas is a Certified Associate in Project Management from the Project Management Institute (PMI).

Decatur Marine Announces Expansion Staff Promotions

Decatur Marine Audit & Survey announced the promotion of **Kevin Wakefield** and a new office location in New Orleans. Wakefield, who began his career for Decatur Marine in TSMS Operations, has been promoted to Operations Manager. To better support clients and expanding operations in District 8, Wakefield has relocated to New Orleans to lead the firm's expanded District 8 operations.

Carpenter Named Executive Director of Captain Phillips–Lane Kirkland Trust

Rear Adm. **Wendi B. Carpenter** has been named the Executive Director of the Captain Phillips and Lane Kirkland Maritime Trust. She has served as a Board Member of the Trust since shortly after its inception. Carpenter was the first woman aviator to be promoted to the flag rank in the U.S. Navy. During her distinguished 34-year career, she served in leadership roles that included deputy commander of the USN Second Fleet and commander of the Navy's Warfare Development Command (NWDC). After her retirement from the Navy in August 2011, she served as presi-


Fowler


Herrera


Hadjipateras


Stollenwerk


Hale

dent of SUNY Maritime College. The Captain Phillips–Lane Kirkland Maritime Trust Foundation is a 501(c)(3) charitable trust created to promote the long-term strength of the U.S. maritime industry and the American Merchant Marine.

Fowler, Fowler Rodriguez personnel Join Jones Walker

Jones Walker LLP announced that attorneys from maritime law firm Fowler Rodriguez, including **George J. Fowler, III**, have joined the firm's New Orleans, Miami, and Houston offices. **George J. Fowler, III**, **Edward F. LeBreton, III**, **Luis E. Llamas**, **Luis Enrique Cuervo**, **Michael W. McCoy**, **Santiago J. Padilla**, **Mark D. Rich**, and **Juan E. Serrallés** joined as partners, **Michael A. Rosen** joined as special counsel, and Caroline Sanches and **Lauren M. Kurtz** joined as associates. This group of attorneys collectively represents domestic and multinational companies in the maritime, energy, and insurance industries.

Herrera Takes Helm as Oxnard Harbor District President

The Port of Hueneme recently welcomed new leadership when the Board of Harbor Commissioners unanimously voted **Jess Herrera** to serve as President for 2019. Herrera was first elected to the Board in 1994. Herrera's service includes 10 terms as Executive Officer of the Internal Longshore and Warehouse Union (ILWU), as well as serving 8 terms as Chairman of the ILWU's Southern California Regional Jurisdiction Committee; which in addition to the Port of Hueneme, also includes the Ports of LA, Long Beach, and San Diego.

Hadjipateras Named CMA's 2019 Commodore

Mr. **John C. Hadjipateras**, Chairman, CEO & President of Dorian LPG has been named as the Connecticut Maritime Association (CMA) Commodore for 2019. Hadjipateras follows a long succession of maritime industry leaders as Commodore. The 2019 Commodore Award will be presented on April 4, 2019 at the conclusion of the annual CMA conference and trade exposition. The Award is given each year to a person in the international maritime industry who has contributed to the growth and development of the industry. Hadjipateras has been actively involved in the management of shipping companies since 1972 and has served as a member of the board of the Greek Shipping Cooperation Committee of the Council of Intertanko and has been a member of the Baltic Exchange since 1972 and of the American Bureau of Shipping since 2011.

DSPA names Director of Government & Environmental Affairs

The Duluth Seaway Port Authority has welcomed aboard a new Director of Government and Environmental Affairs. **Jeff Stollenwerk** brings over 28 years of environmental and legislative expertise to the position, including development and implementation of regulatory policy on navigational dredge material reuse and mitigating environmental risks from maritime vessel discharges. Stollenwerk has degrees in chemistry and aquatic biology.

EBDG Opens East Coast Office

Elliott Bay Design Group has opened a new East Coast office in Port Chester, NY. The office will provide professional engineering and naval architecture services as well as waterfront development expertise to clients on the East Coast. Additionally, EBDG hired **Catherine (Kate) Hale** to establish its East Coast presence. Kate is a Systems Engineer and a certified Port Executive. Kate received a MS in Maritime Systems Environmental Engineering from Stevens Institute of Technology and a BS in Environmental Biology Science with a minor in Sustainability from Simmons College.

Crowley Adds Capacity, Vessels to North Atlantic Puerto Rico Service

Crowley Logistics announced today that it has expanded its North Atlantic network of vessels, adding velocity to customer supply chains operating

Crowley


Parrott


Wiernicki

between the Northeastern U.S., Puerto Rico, the Dominican Republic and the islands of the Caribbean Basin. Specifically, by adding additional capacity with the flat deck barge 455-4 to its rotation, Crowley has further stabilized its North Atlantic-Puerto Rico sailing schedule while increasing cargo capacity. Crowley's 455-4 flat deck barge loaded its first southbound trip in early January. Additionally, a proprietary feeder service has been launched to seamlessly link Puerto Rico to the Dominican Republic and other islands of the Caribbean Basin.

Cook Inlet Tug & Barge Acquiring Assets on Alaska's North Slope

Cook Inlet Tug & Barge (CITB), a Foss Maritime subsidiary, announced that it has completed the purchase of all of Crowley's Prudhoe Bay, Alaska assets – including tugs, barges, heavy machinery and other vehicles and equipment. "These assets are already positioned on the North Slope," said **John Parrott**, President and CEO of Foss. "They are operationally ready to perform shallow draft tug and barge services and offer us the opportunity to expand our Alaska operations." Cook Inlet Tug & Barge plans to streamline its operation by focusing on marine equipment and partnering with established shore side service providers in Prudhoe Bay.

Seaway Tolls, Wharfage Charges to Increase in 2019

The St. Lawrence Seaway Management Corporation (SLSMC) announced a toll rate increase of 1.0% for the 2019 navigation season. The new revised tariff has bee posted and is available on the Seaway website. Separately, it was also announced that St. Lawrence Seaway Wharfage and Storage Charges have been revised for the 2019 navigation season. Effective with the commencement of the 2019 navigation season, Wharfage Charges will also increase 1%.

ABS Officially Opens New Global Headquarters

ABS recently held its official ribbon-cutting ceremony, formally opening its new global headquarters. Anchoring the CityPlace 2 development, the building is located in Spring, Texas. "This is a significant milestone in our 157-year history and reaffirms our commitment to provide industry-leading safety and practical technology solutions for marine and offshore industry challenges," said ABS Chairman, President and CEO, **Christopher J. Wiernicki**. The state-of-the-art global headquarters represents the industry's data-driven sustainability journey, as it is home to the ABS cyber and digital laboratories. The new world headquarters is a 10-story, 326,800-sq-ft building housing employees from ABS and its affiliated companies.

Iridium Completes Satellite Launch Campaign

In January, Iridium Communications announced that a SpaceX Falcon 9 rocket launched from Vandenberg Air Force Base ad delivered the final 10 Iridium NEXT satellites to low earth orbit (LEO). All 10 satellites have successfully communicated with the Iridium Satellite Network Operations Center and are preparing to undergo initial on-orbit testing. This was the eighth and final launch for Iridium's historic launch campaign with SpaceX, seeing a total of 75 new satellites deployed over less than two years. Iridium invested approximately $3 billion to replace its original satellite system with a new, state-of-the-art network, ushering in an era of financial and technological transformation for the company. The Iridium satellite constellation is the only communications network with pole-to-pole coverage of the entire planet.

DNV GL, Washington State Develop Strategic Maritime Roadmap

Washington State partnered with DNV GL in late 2017 to develop the "Washington Maritime Blue" strategy for the sustainable development of the state's $38 billion mari-

Iridium

DSouza

time industry. With that strategy now complete, the State unveils how it plans to achieve the vision of being home to a world-class, thriving, and sustainable maritime industry by 2050. The roadmap and supporting strategy framework was driven by the Maritime Blue Task Force, comprised of hundreds of industry leaders and stakeholders from across public and private sectors. **Anthony DSouza**, EVP, DNV GL Maritime Americas, gave a keynote address to attendees at the strategy roll-out event, saying, "DNV GL is a proud partner in the project to develop this Maritime Blue Strategy and will continue to support the State as it positions itself in the competitive national and international market place through the Washington Maritime Blue cluster."

AdobeStock_Cozyta

USCG Drug Testing

Port of Everett

McMahon

Macrae

Minimum Random Drug Testing Rate Set at 50 PCT

The U.S. Coast Guard announced in the Federal Register that the calendar year 2019 minimum random drug testing rate is set at 50 percent of covered crewmembers. This rate is effective January 1, 2019 through December 31, 2019. The Coast Guard has increased the minimum random drug testing rate for 2019 as a result of Drug and Alcohol Management Information System (MIS) data for the most recent reporting year indicating that the positive rate is greater than one percent. 46 CFR part 16.230(f)(2) requires the Commandant to set the minimum random drug testing rate at 50 percent when the positivity rate for drug use is greater than one percent. The Coast Guard requires marine employers to establish random drug testing programs for covered crewmembers in accordance with 46 CFR 16.230. Every marine employer is required by 46 CFR 16.500 to collect and maintain a record of drug testing data for each calendar year, and submit this data by March 15 of the following year to the Coast Guard in an annual MIS report.

Port of Everett earns Marad's 'Short Sea' Designation

The Port of Everett has achieved another vital step in reducing congestion on the I-5 corridor while moving more freight in the region. The Port was notified this month that it received designation by the U.S. Secretary of Transportation as a Federal Maritime Administration Marine Highway Project for the Puget Sound Container on Barge Service under the America's Marine Highway Program. The Port is one of 25 marine highway projects in the nation, and the only marine project designation on the West Coast. The designation makes the Port eligible for future grant funding from the Marine Highway Grant Program to fund infrastructure improvements or equipment to enhance the Port's ability to expand barge service along the Puget Sound marine corridor. The Port of Everett currently offers Container on Barge service from its shipping terminals in Everett to the Mount Baker Terminal. This service is limited to the aerospace industry, however. The new designation will allow the port to ship non-aerospace containerized freight via the marine highway from Everett to the Ports of Seattle and Tacoma, removing as many as 300 containers per month from the I-5 corridor. The I-5 corridor through Everett leads the nation in traffic congestion.

Passenger Vessel Foundation Receives $25,000 Grant from Hornblower

The Passenger Vessel Foundation, a nonprofit organization supporting education and safety in the passenger vessel industry, received a $25,000 Challenge Grant from Hornblower Cruises & Events. "We are very pleased to receive this generous Challenge Grant from Hornblower Cruises & Events," said **Rob McMahon**, President of the Passenger Vessel Foundation (PVF). "Hornblower has been a major longtime supporter of the Foundation." PVF grants are available to individuals and nonprofit organizations interested in educational assistance, research, training, and the improvement of safety within the maritime industry, as these apply to the U.S. domestic passenger vessel industry. "We are proud of our support for the PVF and its great work to date. It's clear there are more qualified applicants for educational assistance than the limited resources the PVF can support. For this industry to grow safely, it needs more qualified and trained mariners, and we hope this Challenge Grant will help." said **Terry MacRae**, Chairman and CEO of Hornblower Cruises & Events.

Blue Atlantic Fabricators Launches Wharf Ferry, Water Taxi Dock

Blue Atlantic Fabricators of East Boston, MA announced the fabrication and launch of a 50 ton, 20 x 80 foot floating dock to be located at Lovejoy Wharf in Boston. The all-steel dock, will serve privately-run ferry and water taxi service between Lovejoy Wharf

Vessel Incidental Discharge Act

Merchant Mariners Gold Medal Act

Sea States

and Boston's Seaport District, offering both bow-loading and side loading capabilities. Blue Atlantic Fabricators built the floating dock. White Marine, Inc. who, as general marine contractor for developer Related Beal, will finish and install the docking system at the multiuse Lovejoy Wharf property. The project's accelerated schedule called for completion by the end of 2018 in order to bring much-anticipated ferry and water taxi service to the burgeoning area in the first quarter of 2019. The project is the first for Blue Atlantic Fabricators as a newly established subsidiary of Boston Harbor Cruises (BHC).

Rep. Garamendi Introduces Merchant Mariners of WWII Congressional Gold Medal Act

Congressman John Garamendi (D-Fairfield, Davis, Yuba City), recently introduced H.R. 550, the Merchant Mariners of World War II Congressional Gold Medal Act with Representatives Don Young (R-AK) and Susan Brooks (R-IN) joining as original cosponsors. This legislation would award a Congressional Gold Medal, one of the highest honors in the United States, to Merchant Mariners who sustained our armed forces during World War II. "The Merchant Marine suffered the highest per capita casualty rate in the U.S. Armed Forces during World War II. An estimated 8,300 mariners lost their lives, and another 12,000 were wounded, to make sure our service members could keep fighting. Yet, these Mariners who put their lives on the line were not even given veteran status until 1988," said Garamendi. The Merchant Mariners of World War II Congressional Gold Medal Act was introduced in the Senate simultaneously by Senator Lisa Murkowski (R-AK). The bill is currently awaiting action by the House Financial Services Committee.

Sea States: Shipping Documentary Film is in Production

Sea States, a new documentary film on the importance of the shipping industry is currently under production by Third Wave Films. Endorsed by the Connecticut Maritime Association, and the Marine Industry Foundation, the film is being funded by key stakeholders in the maritime community. Sea States will show how shipping is the life blood of our global economy. Despite the fact 90% of all consumables arrive by ship, the public remains unaware of the value of this hidden, yet massive industry. Sea States will outline shipping's rich heritage, its commitment to a clean environment, and its adaptation of new technologies for the future. For the film's producer, **Tom Garber**, this is his 13th maritime documentary. The finished film will be an hour long and is expected to be released in Spring 2019.

In-Mar Solutions: Wynn Marine Type C & Type D, Heavy Duty Straight Line Wipers

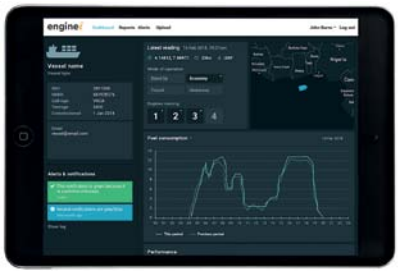
Wynn Type C (internal motor) and Type D (external motor) Straight Line Wipers offer the most advanced design of linear action window wiping systems for marine and other specialized applications. Optimum window coverage can be achieved and enhanced by utilizing a twin-bladed or dual-arm/blade design.

www.inmarsolutions.com

Royston's Digital Fleet Performance Optimization

Royston's latest enginei marine fuel monitoring and engine management system continues the marine industry's digital transformation. The upgraded 'V2' operating software for the enginei EFMS improves performance monitoring and fleet management capabilities. Also for the first time, enginei's special engine monitoring module gives owners cost-effective options for the remote monitoring of electronic engine data without the need for flowmeters and other sensors.

www.enginei.co.uk



Trelleborg's SafePilot CAT MAX Takes Safety to the MAX

Trelleborg's marine systems' SafePilot CAT MAX is the latest addition to its SafePilot range, which utilizes state-of-the-art software and technology to help pilots optimize safety in day-to-day operations. Trelleborg's new SafePilot CAT MAX has been specifically designed for use in even more demanding applications including as the piloting of ultra large container vessels and LNG ships in confined waters and offshore operations.

www.trelleborg.com/marine

LTE Antennas ideal for City or Sea

Poynting's Cellular LTE/5G Ready omni-directional antennas improve internet speed when requiring connectivity at sea. Poynting's new OMNI-402 and the OMNI-600 MIMO omni antennas are based on the popular marine antenna (OMNI-291). These antennas share the same physical elements within the antenna enclosure. Although both antennas are electrically the same, the OMNI-402 is specifically designed for marine applications and the OMNI-600 targeted at inland environments.

www.poynting.tech

Sharrow Engineering's New High Efficiency Propeller

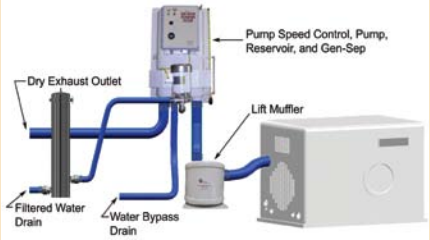
Philadelphia design firm Sharrow Engineering's propeller design has been awarded patents in the US, Japan, Canada, and European Union with further patents pending. Research shows the Sharrow Propeller is 9%-15% more efficient than the industry standard Wageningen B-series design. Industry experts have traditionally evaluated gains of 1 percent efficiency as meaningful. The Sharrow Propeller can be manufactured to meet a comparable price point to standard propellers.

www.sharrowengineering.com

Arctic FoxTail passes Svalbard tests

Arctic Foxtail, a new oil spill response device capable of cleaning up spills in arctic conditions and contributing to Norway's spill preparedness, is a new winterized version of H Henriksen's standard Foxtail mop skimmer. Filtering out oil spills from the seawater using its sorbent mops, the FoxTail can operate in -21°C under the same sea temperature and wind conditions.

www.hhenriksen.com



Centek Gen-Kleen Genset Pollution Control Systems

A Gen-Kleen system from Centek Marine integrates with a generator wet exhaust system to remove hydrocarbon pollution (sheen, soot, unspent fuel) from exhaust water before it is discharged. With over 100 systems installed on boats and yachts worldwide, Gen-Kleen is built to withstand harsh marine environments, and accommodates marine gensets from 5 kw and up in two models to accommodate different engine room layouts.

www.centekmarine.com

Schoellhorn-Albrecht Delivers Anchor winches & Windlass

Schoellhorn-Albrecht recently delivered a SHAW-2.0-25/25E Anchor Windlass and six SW-100-50E Mooring Winches for use on a Cleveland Rocks Conversion to a Self-Unloading Cement Carrier. Powered by a 2-speed 25/25HP Electric Motor, the windlass provides chain pull of 24,600 LBS at 30 feet/minute. The winches can be used with wire rope in either direction and are capable of line pull of 15,000 LBS at 0-100 feet/minute and a light line pull at up to 150 feet/minute.

www.schoellhorn-albrecht.com

MacGregor to Supply Navy Workboat with Deck Equipment

MacGregor will supply deck machinery equipment for a US Naval Sea Systems Command (NAVSEA) T-ATSX-class vessel under construction at Gulf Island Shipyards, with an option for a further seven vessels. The towing, salvage and rescue ship (T-ATSX) is a new class of vessel that will be deployed for worldwide naval service including open-ocean towing, supporting salvage operations and submarine rescue missions.

www.macgregor.com

Mercury Propane FourStroke Outboard Delivers Reliability

The Mercury 5hp Propane FourStroke delivers no-hassle portability, reliability and convenience running on alternative clean-burning fuel – whether it's powering aluminum boats or inflatables. With a large 7.5 cubic inch (123cc) displacement, the new 5hp FourStroke Propane outboard offers best-in-class power by delivering a true 5hp. Starting at just 59.5 pounds, the 5hp Propane FourStroke is light, easy to transport, and boasts 30% lower exhaust emissions compared to gasoline.

www.MercuryMarine.com

Pocket Guide – Seagull's New Learning Concept

Seagull Maritime's newest concept to their comprehensive library of learning is the The Pocket Guide. A supplement to e-learning modules, Pocket Guide is an electronic tool in Seagull Training Administrator (STA), that comes with a 'to the point' summary of a specific topic. Each Pocket Guide provides a fast and easy tool that can be accessed anytime and anywhere to supplement Drill efficiency, Drill Preparation, planning and evaluating training drills.

www.seagull.no

Invertek for Marine Contamination Response Teams

Western Canada Marine Response Corp. (WCMRC) responds to marine contamination along 27,000km of coastline using a fleet of dedicated vessels equipped with specialized equipment. WCMRC made three of its new vessels more efficient by fitting them with DNV type-approved Invertek Drives Optidrive P2 55kW and 75kW VFD for their bow thruster and winches control. WCMRC opted for green technology for thruster and winch control in contrast to less efficient hydraulic systems often used for bow thrusters.

www.invertedrives.com

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DECK ENGINEER MACHINIST

Military Sealift Command

Salary: $43,658, Full Time, Engineer
Category: Engineer / Naval Architect
Announcement #: 19-328-01EX
Title, Series, Grade (Code)
Deck Engineer Machinist,
WM 9952-15 (328)
Type of Appointment: Excepted Service Career-Conditional
Opening Date: December 3, 2018
Closing Date January 2, 2019
Location: Military Sealift Command (MSC) Vessels Worldwide
Who May Apply: All United States citizens and current Military Sealift Command Civil Service Mariner (CIVMAR) eligible to apply under the Veterans Employment Opportunities Act (VEOA). Active Duty Service Members (ADSMs) must submit a certification (i.e., statement of service) at the time of application which certifies that the service member is expected to be discharged or released from active duty service under honorable conditions not later than 120 days after the date the certification is submitted. Relocation expenses are not authorized for this position.
Duties: The Deck Engineer Machinist is a Civil Service Mariner (CIVMAR) employed by the Navy to serve the Military Sealift Command (MSC) onboard naval auxiliaries and hybrid-manned warships worldwide, in peace and war. MSC exists to support the joint warfighter across the full spectrum of military operations. MSC provides on-time logistics, strategic sealift, as well as specialized missions anywhere in the world, contested or uncontested environments.

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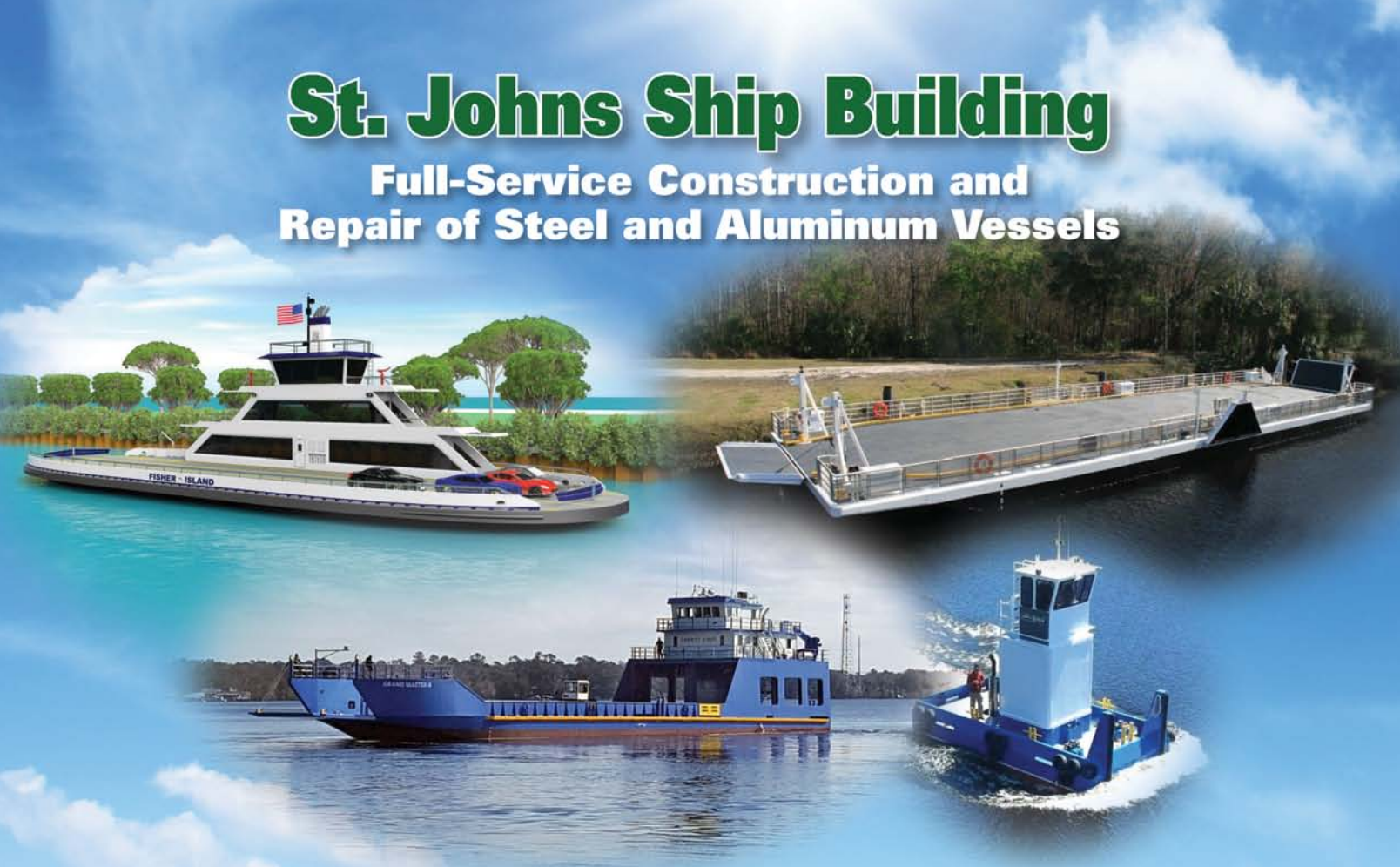

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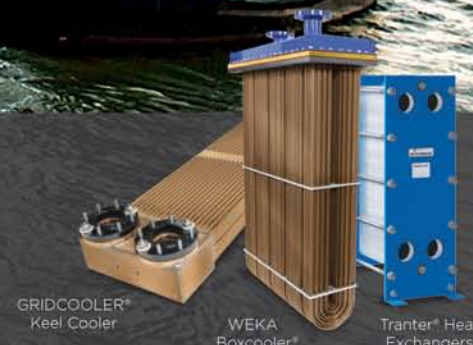

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