

Marine

News

OCTOBER 2018

www.marinelink.com

**Autonomous
Workboats**
Not Coming; Already Here

Dynamic Positioning
Training for the future

TECH Trends
The drones are coming

SubM Casts Off
The new normal on
inland rivers

PERFORMANCE HAS A NAME.

For decades, Cummins has provided dependability and performance to marine operations around the world. And our legacy of innovation continues with our new X15 engine solutions.

The perfect size for inland waterway applications, the X15 gives you reduced fuel consumption, without reduced performance; and is an efficient option for a new build or a repower opportunity. Plus, it's backed by a 2-year warranty and our world-class support network in over 190 countries.

Innovative solutions from a name you can trust. No matter the vessel, Cummins will keep you Always On.

Contact your local authorized Cummins dealer or learn more at CUMMINS.COM/MARINE.





TRACK FUTURE CONSTRUCTION REQUIREMENTS FOR FLOATING PRODUCTION SYSTEMS WITH REAL TIME MARKET ANALYSIS

IMA
INTERNATIONAL
MARITIME ASSOCIATES

FORECASTS AND MARKET INTELLIGENCE FOR THE GLOBAL FLOATING PRODUCTION MARKET

THERE IS NOTHING ELSE LIKE IT ANYWHERE ELSE!

This comprehensive business intelligence service and online database provides insider access to business and investment opportunities in the deepwater global floating production sector.



- **MONTHLY REPORTS ON FLOATER PROJECTS:**

100+ page monthly reports providing up-to-date details for current and planned floating production projects

- **2018/22 FORECAST OF ORDERS:**

An in-depth market analysis and five year forecast of orders for floating production systems

- **SEARCHABLE DATABASE**

Internet accessible database with daily updated info direct from industry sources on current and planned deepwater projects

**REQUEST YOUR SAMPLE REPORT AND A FREE FIVE DAY TRIAL:
VISIT WWW.WORLDENERGYREPORTS.COM OR CALL +1-212-477-6700**



Credit: ABS

INSIGHTS

18 Thomas S. Chance
Chief Executive Officer, ASV Global

INSURANCE

24 Multiple Miscommunications Lead to Untimely Unemployment
By Randy O'Neill

DREDGING

28 Waterway Pipeline Task Force Formed
Dredging Contractors of America and the Council for Dredging and Marine Construction Safety Create Public-Private Task Force to Ensure Safe Operations in Waterways with Submerged Pipelines.
By Michael Gerhardt

SOFTWARE AND VESSEL DESIGN

40 Exploring Class Approvals, Supported by CAD
ABS software supports designs across most vessel sectors. This pilot project focused on tug and barge designs, producing promising results.

30 Subchapter M Casts Off
Initial reports show that the towing industry is adjusting well to the new normal on inland rivers. In fact, it is business as usual for most.
By Tom Ewing

36 The Drones are Coming
Nimble and quick, unmanned aerial vehicles have evolved into a valuable tool for marine and offshore applications.
By Jim Romeo

43 Dynamically Positioned for the Future
OSVDPA accredits Texas A&M Maritime Academy to provide dynamic positioning (DP) training to its cadets.

ON THE COVER

ASV Global's C-Worker 4 compact hydrographic survey vessel motors along in autonomous mode. Autonomous workboats aren't coming. They are already here. The story begins on page 18.

Image credit: ASV



WE POWER YOUR BUSINESS



engines, inc.[™]

RELIABLE POWER FROM 40kW TO 250kW

When reliability is critical you need an engine you can depend on. That's why we use **John Deere PowerTech™** engines which are durable, fuel efficient, and easy to maintain. They are also backed by the support of one of the strongest engine and equipment companies in the world.

On the inland waterways, your generator set powers your business. When you choose a power generation package from **engines, inc.**, you can rest assured that you are getting the best engineered package available anywhere. You also get access to the most reliable 24/7 support structure in the business. Our skilled staff and our extensive dealer network will provide you with reliable service and support that you can count on.

24-HOUR SERVICE LINE 870-268-3799

With over 150 years of collective experience in our shop and over 75 years of partnership with John Deere, we are, without a doubt, your best choice for Generator Sets and Propulsion Engines on the inland waterways. Our experience distinguishes us and our integrity sets us apart. When everything is on the line you can count on us: **We Are Your Power Source.**

engines, inc.
Jonesboro, AR • 800-562-8049
Conroe, TX • 936-441-5592

www.enginespower.com

24-Hour Service Line
870-268-3799



AUTHORIZED JOHN DEERE ENGINE DISTRIBUTOR

PUBLISHER

John C. O'Malley • jomalley@marinelink.com

Associate Publisher & Editorial Director

Greg Trauthwein • trauthwein@marinelink.com

Editor

Joseph Keefe • keefe@marinelink.com
Tel: 704-661-8475

Web Editor

Eric Haun • haun@marinelink.com

Contributing Writers

Susan Buchanan • Lawrence R. DeMarcay, III
Tom Ewing • Joe Hudspeth • Randy O'Neill • Barry Parker

PRODUCTION

Production & Graphics Manager

Nicole Ventimiglia • nicole@marinelink.com

SALES

Vice President, Sales & Marketing

Rob Howard • howard@marinelink.com

Advertising Sales Managers

National Sales Manager

Terry Breese • breese@marinelink.com
Tel: 561-732-1185 Fax: 561-732-8414

Lucia Annunziata

Tel: 212-477-6700 ext 6220 • annunziata@marinelink.com
Fax: 212-254-6271

John Cagni

Tel: 631-472-2715 • cagni@marinelink.com
Fax: 561-732-8063

Frank Covella

Tel: 561-732-1659 • covella@marinelink.com
Fax: 561-732-8063

Mitch Engel

Tel: 561-732-0312 • engel@marinelink.com
Fax: 561-732-8063

Mike Kozlowski

Tel: 561-733-2477 • kozlowski@marinelink.com
Fax: 561-732-9670

Jean Vertucci

Tel: 212-477-6700 ext 6210 • vertucci@marinelink.com
Fax: 212-254-6271

Managing Director, Intl. Sales

Paul Barrett • ieaco@aol.com

Tel: +44 1268 711560 Fax: +44 1268 711567

Uwe Riemeyer • riemeyer@intermediapartners.de

Tel: +49 202 27169 0 Fax: +49 202 27169 20

CORPORATE STAFF

Manager, Marketing

Mark O'Malley • momalley@marinelink.com

Accounting

Esther Rothenberger • rothenberger@marinelink.com

Tel: 212-477-6700 ext 6810

Manager, Info Tech Services

Vladimir Bibik • bibik@marinelink.com

CIRCULATION

Circulation Manager

Kathleen Hickey • k.hickey@marinelink.com

Tel: 212-477-6700 ext 6320

TO SUBSCRIBE:

Subscriptions to *Marine News* (12 issues per year) for one year are available for \$60.00; Two years (24 issues) for \$95.00.

Send your check payable to:

MarineNews, 118 E. 25th St., New York, NY 10010.

For more information email Kathleen Hickey at: k.hickey@marinelink.com



Departments & Analysis

6 Editor's Note

8 Authors & Contributors

10 **BY THE NUMBERS**
U.S. Coast Guard - American Waterways Operators Annual Safety Report

22 **LEGAL**
The FBI Doesn't Record Statements, But You Should

By Larry DeMarcay

26 **OP/ED**
Mariner Credentialing Evolves for the Better

By Steve Mason

47 **TECH FILE**
ABB's Next Generation DP system

By Joseph Keefe

49 **BOAT OF THE MONTH**
M/V Hampton Roads

By Eric Haun

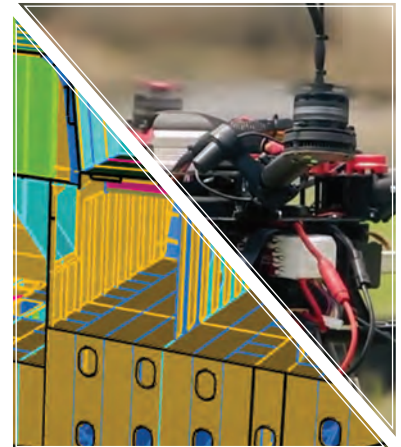
50 Vessels

52 People & Company News

57 Products

60 Classified Advertising

64 Advertiser's Index



MarineNews (ISSN# 1087-3864) is published monthly (twelve issues) by Maritime Activity Reports Inc. 118 E 25th St. New York, NY 10010-1062. Periodicals Postage Paid at New York, NY and additional mailing offices. POSTMASTER: Send all UAA to CFS. NON-POSTAL AND MILITARY FACILITIES send address corrections to Marine News 850 Montauk Hwy, #867 Bayport, NY 11705.

The publisher assumes no responsibility for any misprints or claims or actions taken by advertisers. The publisher reserves the right to refuse any advertising. Contents of the publication either in whole or part may not be produced without the express permission of the publisher.

The Maritime Industry's Largest Social Media Presence

Maritime Reporter is a member of the Marine Media Network of websites, publications, and social media sources for news, editorial and information including the Maritime Network, the commercial marine industry's largest dedicated LinkedIn group.



63,523
Facebook Page
Likes



130,096
LinkedIn Group
Members
(industry's largest)



31,453
Twitter
Followers

@ShipNews

Also part of the Marine Media Network



Page	Likes
Marine Electronics	33,528
Marine Technology Reporter	55,692
Maritime Global News	26,157
Maritime Jobs	46,011
Maritime Logistics Professional	30,947
Maritime Propulsion	22,477
Maritime Reporter & Engineering News	63,515
World Energy News	49,498

All stats from 01/02/2018



keefe@marinelink.com

The headliner for this month's edition is 'Autonomous Workboats.' We've certainly got that covered, but what this edition evolved into is one that is all about technology itself. And, why not? After all, it is the disruptive advancement of technology that is pushing the envelope on the waterfront, especially when it comes to autonomous operations. But, autonomous operations aren't coming. They are already here. Our *INSIGHTS* focus brings that point home nicely.

Autonomous Surface Vehicles (ASV) is the brain child of Thomas Chance, a pioneer in the business of providing autonomous solutions. Arguably the undisputed industry leader in this rapidly emerging sector, Chance and ASV have already delivered more than 100 autonomous solutions onto the water, along the way defining the way the business will move forward, pioneering the concept of autonomous rental fleets and business relationships with solid workboat providers such as Metal Shark. There's no looking back. Find out why, starting on page 18 of this edition.

Separately, dynamic positioning (DP) has now evolved into a mainstream technology, not just one reserved for specialty offshore energy support vessels. And yet, it isn't separate, at all. That's because ABB's new entry into the DP market aims to serve as the nexus of tomorrow's deep draft autonomous vessel, leveraging predictive algorithms and solutions that apply DP control over the full range of speeds from 0 to 22 knots. It's okay if you don't know what any of that really means. Neither did I. My entry on this fascinating new product begins on page 47.

Taking a break from 'high tech' for just a minute, this month's edition also includes the inland industry's annual scorecard for safety and pollution prevention, as compiled jointly by the U.S. Coast Guard and the American Waterways Operators (AWO). Sure, that's something we've covered before. But, before you flip past it in your haste to find out why and how Texas A&M has become the first U.S. maritime academy to become accredited to teach DP skills, consider that the advent of the U.S. Coast Guard's subchapter M rules is finally upon us. Will it make a difference for the 5,000+ vessels it impacts? Now's the time to benchmark your fleet to find out.

Finally, I always like to weave in a bit of wisdom into each Editor's Note, and when I come up short (like this month), industry is always there to help me out. ASV CEO Thomas Chance admitted in September, "The dirty little secret of the unmanned boat business is that it is not completely unmanned." That's because autonomous technology providers are quick to point out that their offerings aren't necessarily job eliminators, but instead *force multipliers*. That's a nice way of saying that tomorrow's maritime jobs won't be the same ones we see today, but there will probably be just as many to go around. That said; the need for a \$650,000 harbor pilot is probably going the way of today's jet fighter pilot. You need only contact ABB to find out how, and why.

Download our Apps
iPhone & Android

Joseph Keefe, Editor, keefe@marinelink.com

Resources

SUBSCRIBE Subscribe to the print or electronic edition of *MarineNews* at www.marinelink.com/renewsubscr/Renew04/subscribe.html or e-mail mrcirc@marinelink.com

DAILY NEWS via E-MAIL Breaking news, twice every business day, delivered free directly to your e-mail. To subscribe visit maritimetoday.com/login.aspx

POST & SEARCH JOBS Post a position or keep abreast of new employment opportunities at www.maritimejobs.com

ADVERTISE To see *MarineNews'* editorial calendar and advertising rates, visit www.marinelink.com/advertising



YANMAR



**Work Smarter.
Not Harder.**

6AYAM-ET
755 HP
MECHANICAL
TIER 3

highspeedcommercial-ya@yanmar.com

www.yanmar.com/us

**"Maritime Reporter is our
least expensive sales
person."**

- Doug Weidner, DMW Marine Group

For the last 75 years, industry executives have turned to the pages of *Maritime Reporter* for unparalleled news, editorial and information.

By advertising in *Maritime Reporter*, your ad will reach a 100% requested circulation of 34,576, audited by the BPA.

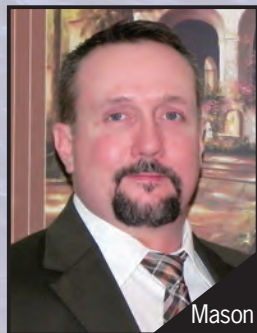
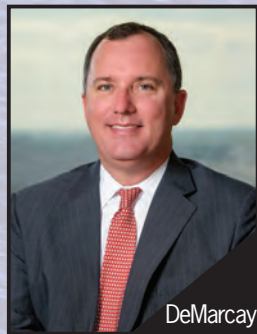
Contact us today to find out how we can help you grow your business.

Maritime Reporter & Engineering News
118 East 25th Street, New York, NY 10010
Tel: +1-212-477-6700 howard@marinelink.com
www.marinelink.com



Authors & Contributors

MarineNews
October 2018
Volume 29 Number 10



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

Larry DeMarcay is a partner in the law firm of Baldwin Haspel Burke & Mayer. His areas of practice include Commercial Litigation, Admiralty, Personal Injury, Transportation, Real Estate, Construction and Corporate Law. Prior to attending law school, Mr. DeMarcay served on the Washington based legislative staff of Congressman Jimmy Hayes. On the WEB: www.bhbmlaw.com

Michael Gerhardt is Vice President, Dredging Contractors of America, and the CDMCS Pipeline Taskforce Director.

Capt. Steven Mason is a certified dynamic positioning operator (DPO) and currently holds an OSVDPA Class A DPO Certificate, Nautical Institute Unlimited DPO Certificate, and is also

an OSVDPA Qualified on Board Assessor (QOBA). Capt. Mason is a Master Mariner and has 23 years of experience working on both Foreign and Domestic waters and he has always been an advocate for his fellow mariner. This year, he was elected by his peers to serve as the member representative to the OSVDPA Technical Advisory Council.

Randy O'Neill is Senior Vice President with Lancer Insurance Company and has been Manager of its MOPS Marine License Insurance division since 1984. Over the past 29 years, Mr. O'Neill has spoken and written on many occasions on the importance of USCG license protection. He is a regular contributor to **MarineNews** magazine. He can be reached at: roneill@lancerinsurance.com

Jim Romeo is a marine engineer and journalist focused on business and technology topics.



ENDURA 12 - ENGINEERED FOR HIGH PERFORMANCE



Endura 12 is ideally suited for wire rope replacement applications. All Endura 12 fiber ropes come with TEUFELBERGER's proprietary abrasion resistant coating that is specially formulated to yield higher strength and more durable and water-resistant lines.

www.teufelberger.com

The industry's leading news site.
Part of the world's largest maritime
publishing network.



www.marinelink.com

U.S. Coast Guard - American Waterways Operators Annual Safety Report

At the National Quality Steering Committee (NQSC) meeting on July 31, 2018, the American Waterway Operators (AWO) and the U.S. Coast Guard (USCG) issued their annual report that benchmarks and serves as the annual safety report card for the domestic towing industry. This year, it comes at a particularly timely moment, just on the heels of the deadline for the so-called ‘subchapter M’ towboat rules.

The NQSC uses three measures to track overall trends in safety and environmental protection. These useful indicators of towing industry trends include (a.) Crew fatalities per 100,000 towing industry workers, (b.) Gallons of oil spilled from tank barges per million gallons transported, and (c.) The number and severity of towing vessel casualties. Scouring towing industry data and measures for calendar years 1994 to 2017 the report also includes summary statistics on crewmember injuries, which the NQSC began tracking in 2006. With subchapter M codified as a means to bring (better) safety to more than 5,000 previously uninspected vessels, it will be interesting to see what the future brings in that regard. Arguably, the industry has done a pretty good job of policing itself over time.

CREW FATALITIES

In 2017, there were six operational towing vessel crew fatalities. While 13 deaths were reported to the Coast Guard aboard freight carrying towing vessels in 2017, only six were related to towing operations. The others were due to existing medical conditions (6) and an accidental overdose (1). Hence, as can be seen in **Chart 1**, the rate of fatalities aboard U.S. towboats continues to trend downwards. Crew Fatality Rate is calculated using the “Mercer Model”, developed with AWO-funded research. The denominator for this rate is derived from the number of towing vessels in operation, as reported by the U.S. Army Corps of Engineers (USACE). As with some government generated data, USACE numbers lag one

calendar year behind USCG data. Therefore, the 2016 USACE data is used with the 2017 crew fatality number to project the 2017 crew fatality rate. **Table 1** shows the fatality rates per 100,000 FTE calculated by the Bureau of Labor Statistics (BLS) for all workers from 2012 to 2016. Additionally, Table 1 shows the fatality rates for the transportation sector and towing industry. For 2016, the towing industry fatality rate is 8.6, which is approximately half the transportation sector and double the rate for all fatal work injuries. It’s a dangerous world out there.

On the environmental front, the USCG reported 84,319 gallons of oil were spilled as a result of 49 tank barge pollution incidents in 2017. **Chart 5** shows the total gallon quantity of oil spilled from tank barges for calendar years 1994 to 2017. The largest spill was the result of an explosion and fire aboard a barge at an Aransas Pass anchorage. This incident accounted for 95% of the total oil spilled in 2017, and had it not occurred, the continued downward trend of the collective inland towboat sector would have been obvious. Indeed, and while even one barrel spilled is one too many, three spills accounted for 99% of the total volume of oil spilled from tank barges in 2017. To say that the industry, over the past 20 years, has exponentially cleaned up its environmental signature would not give nearly enough credit to those firms providing service in this sector.

The projected oil spill rate for 2017 is approximately 1.13 gallons of oil spilled for every million gallons transported, or one gallon of oil spilled for every 885,000 gallons transported. The tank barge oil spill rate is calculated using USCG data, along with USACE data. In 2016, the USACE reported that approximately 74.8 billion gallons of oil was transported by barge on U.S. waterways. That amount represents 81% of all petroleum carried on domestic waterways. In 2016, the amount of oil transported by barge on domestic waterways decreased by 10.2 million short tons or 2.8 billion gallons, a 3.6% decrease from 2015. The overall spill rate increased marginally from last

Table 1 – Comparison of Worker Fatality Rates

Worker Fatality Rates per 100,000 FTE	2012	2013	2014	2015	2016
Bureau of Labor Statistic (BLS), All Fatal Work Injuries	3.4	3.3	3.4	3.4	3.6
BLS, Transportation Sector Fatal Work Injuries	14.6	14.4	15.4	14.7	15.4
Towing Industry, Crew Member Operational Fatal Work Injuries	6.7	7.8	4.4	6.7	8.6

Cullen Diesel Power, Ltd.

Surrey, BC
(604) 888-1211
Servicing: Alberta,
British Columbia,
Manitoba, Northwest
Territory, Saskatchewan,
Yukon Territory

Florida Detroit

Diesel Allison
Fort Lauderdale, FL
(954) 327-4440
Servicing: AL, FL,
MS, Bahamas

Helmut's Marine

San Rafael, CA
(415) 453-1001
Servicing: AZ, CA,
HI, NV, UT, Guam

Interstate Power Systems

Minneapolis, MN
(262) 783-8701
Servicing: IL, WI, MN, IA,
MI (Upper)

Johnson & Towers, Inc.

Egg Harbor Township, NJ
(609) 272-1415
Servicing: DE, MD, NJ,
NY, Eastern PA, Bermuda

Pacific Power Group

Kent, WA
(253) 854-0505
Servicing: AK, ID, OR, WA

Power Products

Wakefield, MA
(781) 246-1811
Servicing: CT, MA,
ME, NH, RI, VT

Stewart & Stevenson

Houston, TX
(713) 751-2700
Servicing: TX, LA

Superior Diesel, Inc.

North Charleston, SC
(843) 553-8331
Servicing: GA, KY (Eastern),
SC, TN (Eastern)

Wajax Power Systems

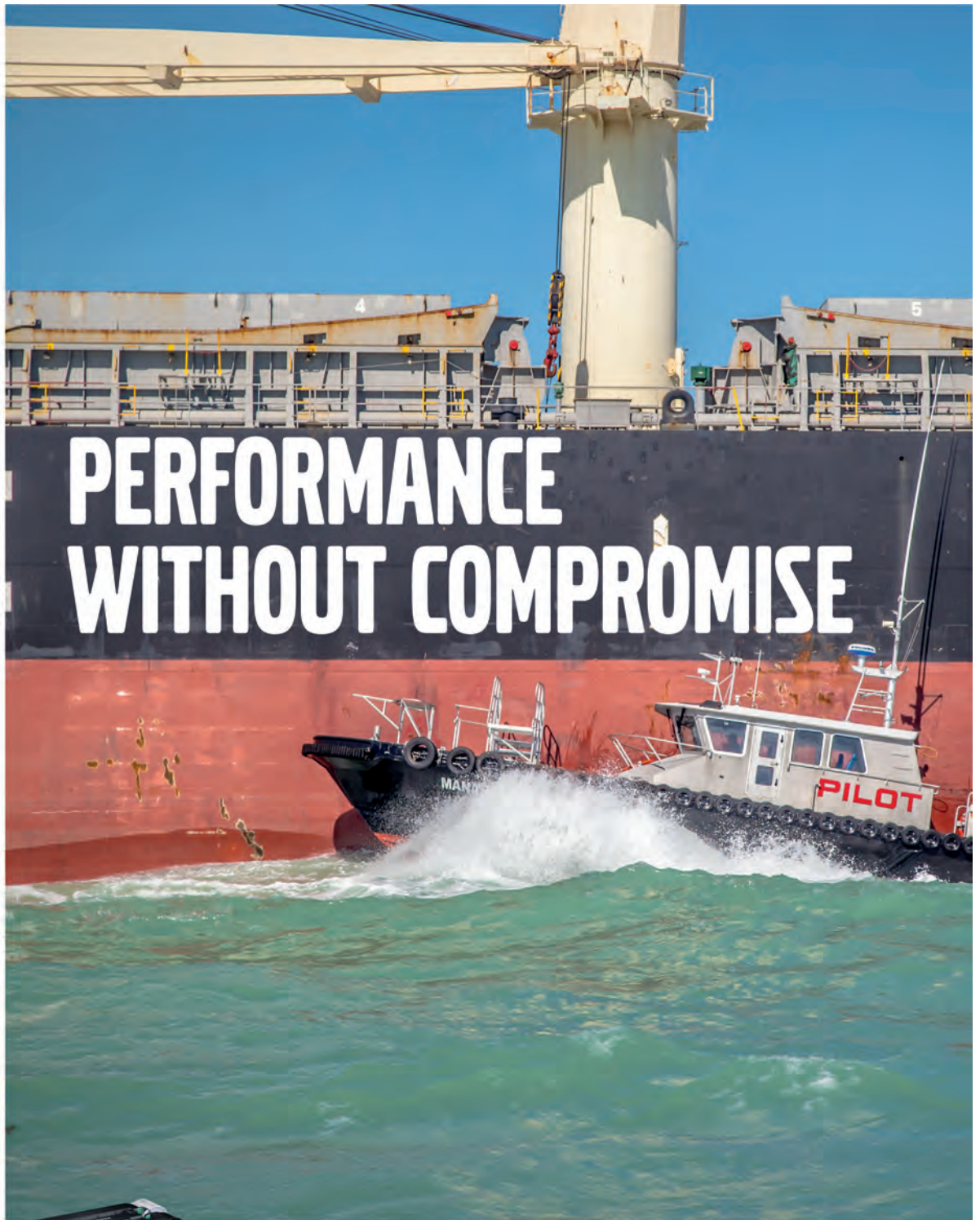
Ste. Foy, QC
(418) 651-5371
Servicing: Labrador, New
Brunswick, Newfoundland,
Nova Scotia, Prince
Edward Island, Quebec,
St. Pierre et Miquelon

Western Branch Diesel

Portsmouth, VA
(757) 673-7000
Servicing: NC, OH,
PA (Western), VA, WV

Volvo Penta Power Centers

Contact one of our Power
Centers for applications
guidance and engine quotes.



The Volvo Penta IPS - a true transformative technology on its way to becoming the new standard in pilot boat propulsion. With 20 percent faster speed, 30 percent lower fuel consumption, 15 percent faster acceleration and 50 percent lower noise and vibration levels when compared to a traditional shaft installation, it's the perfect solution for modern pilot boats. It's also backed by our qualified power centers like FDDA in Florida.

**VOLVO
PENTA**

year, primarily a function of the lower volumes carried and the one significant spill previously mentioned. Nevertheless, the oil spill rate continues to be relatively low considering the overall volumes transported, and that oil volumes transported by barge have increased a whopping 18% over the past six years.

In terms of safety itself, a vessel incident is defined as a casualty involving a towing vessel or barge engaged in carrying freight. Incidents where ONLY a crew member death, injury, or operational tank barge spill occurred, without a precipitating or associated towing vessel or barge incident, are not included in this measure since they are included in other sections of the report. **Chart 7** shows the number of towing vessel incidents reported and classified by the AWO-USCG Severity Scale. The Severity Scale, was developed by the NQSC to assist in the classification of these incidents. Towing vessel incidents include ALL reportable marine casualties that involve a towing vessel or barge involved in freight movements. Tugs and barges involved in the construction, dredging, and industrial services are not included. Each incident is counted only once, regardless of the number of involved vessels or recorded events.

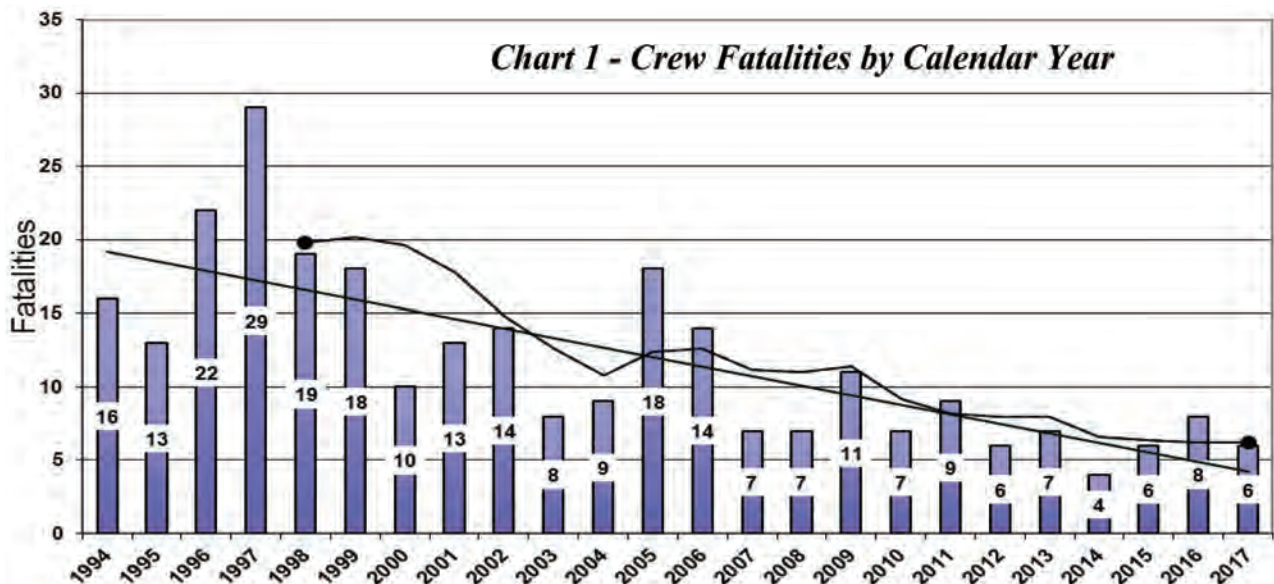
In 2017, there were 934 towing vessel incidents, of which 82% were classified as low severity incidents. Medium and high severity incidents represented 10% and 8%, respectively. There was a 24% decrease in investigated towing vessel incidents from 2016 to 2017 and, looking at the chart, this continues a trend which has been in a downward pattern since 2011. Will the advent of SubM bring more in the way of improvement? Only time will tell. Other maritime industry segments have experienced a similar decrease in the number of reported incidents as a result of NVIC

01-15. From 2014 through 2017, there has been a 45% reduction in ALL Reportable Marine Casualties reported to the Coast Guard. Over those same years, the towing vessel industry has experienced a 48% reduction in reported incidents, or slightly better than the industry mean.

The top four categories of towing vessel medium and high severity incidents are *collisions, allisions, groundings, or material failures*. Collisions, allisions, or groundings accounted for 53% (1,705 of 3,244) and material failures accounted for 20% of towing vessel medium and high severity incidents.

In 2005, the Coast Guard began documenting injury severity with each incident investigation. From 2006 to 2017, the overall percentage of minor and moderate severity injuries remains at 72%. This category's good news stories are that no injury in 2017 reached the critical severity level, and that the share of moderate severity injuries has decreased by 1% relative to the share of minor severity injuries. All other severity categories remained at the same percentage level between 2016 and 2017. *Accident types most associated with injuries in the 'most significant' category in frequency order include a fall onto a surface; Line handling/caught in lines; crushed between objects, and finally, struck by a moving object.*

The most significant 'take-away' from this annual report is that the towing industry is in a process of continual improvement – *with notable and rare caveats* – and in terms of safety and environmental performance, it continues to get better. In theory, the advent of the Subchapter M towboat rules should accelerate that pace. That said; it is tough to move the needle from an already enviable record. Time will tell. Stay tuned – we'll be here to catalog it as it unfolds.



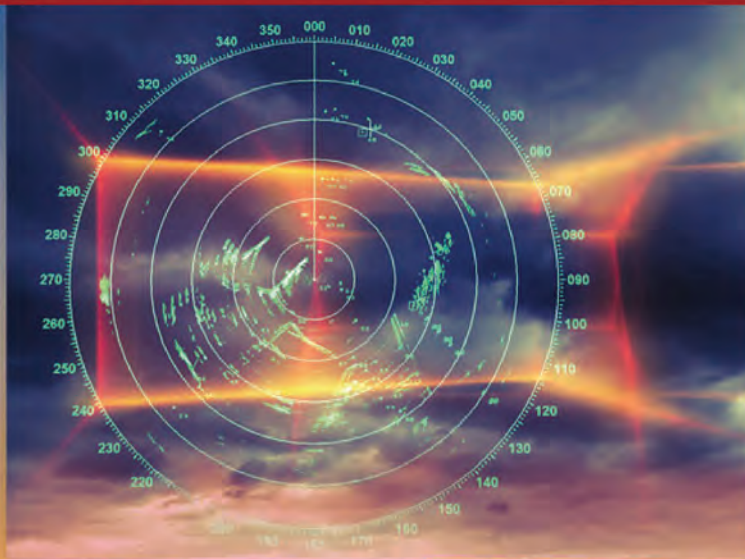


NEW VENUE | NEW FORMAT | NEW IDEAS
NEW OPPORTUNITIES | NEW ERA

7th Annual Fleet Optimization & Innovation
Conference and Exhibition

SHIPPINGInsight 2018

REGISTER NOW - UNIQUE MATCHUP - PARTNERSHIPS STILL AVAILABLE



The premier technology forum
and networking event for
maritime industry professionals.

October 16 - 18
Stamford Hilton
Stamford, CT

Three days not to be missed!

(203) 255-4686

www.SHIPPINGInsight.com

Chart 5 – Oil Spilled from Tank Barges

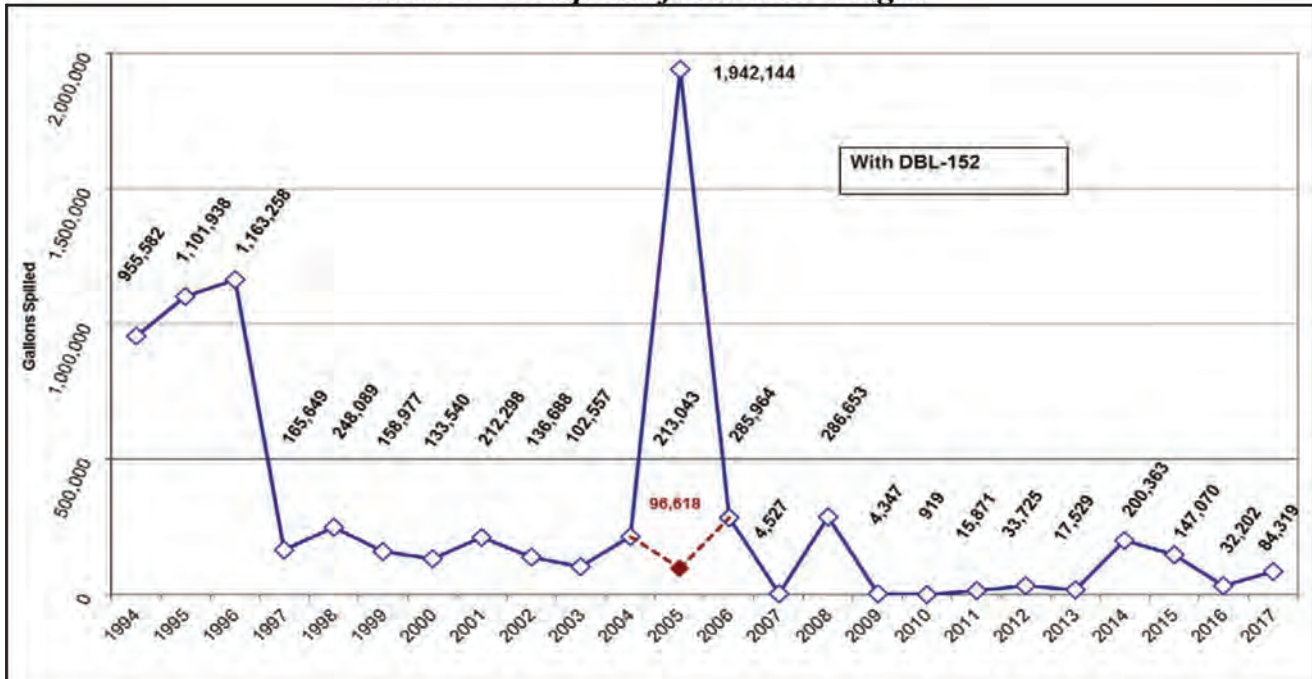
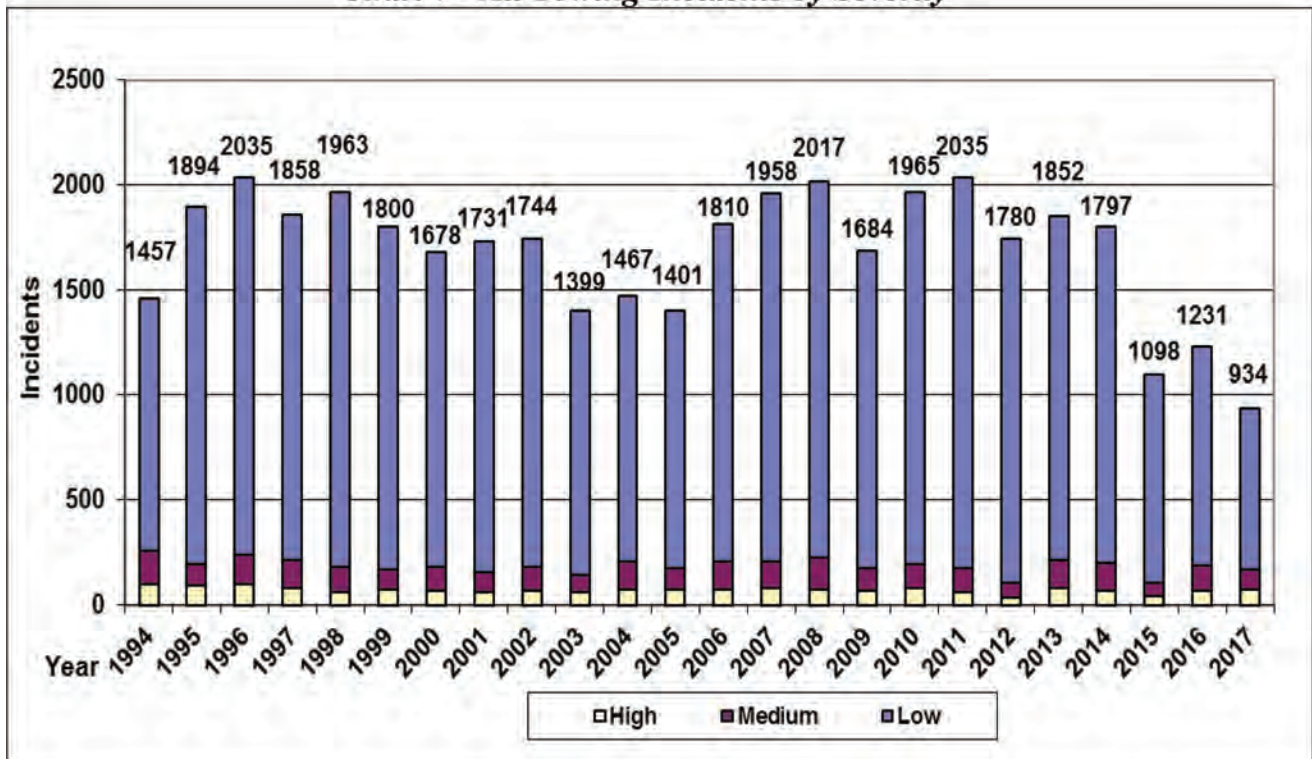


Chart 7 - All Towing Incidents by Severity



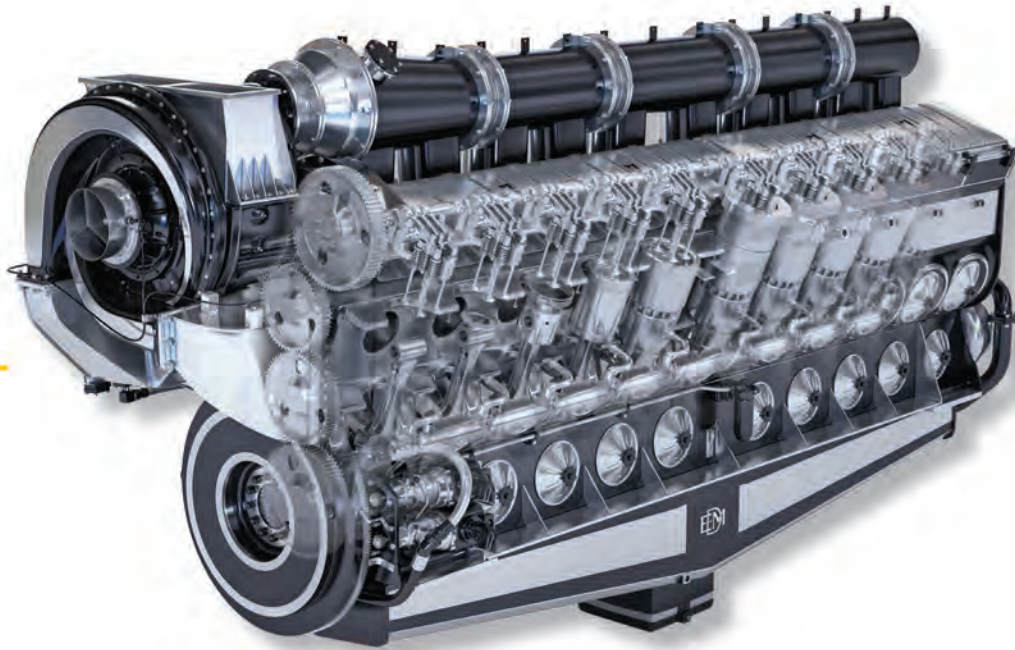
Read the AWO/USCG report by clicking:
www.americanwaterways.com/sites/default/files/2017USCG-AWOAnnualSafetyReport31Jul2018.pdf

MAXIMIZE YOUR POTENTIAL.



Find your new career at:
MaritimeJobs.com

www.MaritimeJobs.com



The E 23 (IMO II-EPA T3) and E 23B (IMO III-EPA T4F) are available in 8, 12, 16 and 20 cylinder configurations with power ratings from (1675 hp) to (5500 hp).
*“Please consult MSI for specific application ratings”

TWO CYCLE ADVANTAGE

ENDURING DESIGN.
LEGENDARY HERITAGE.

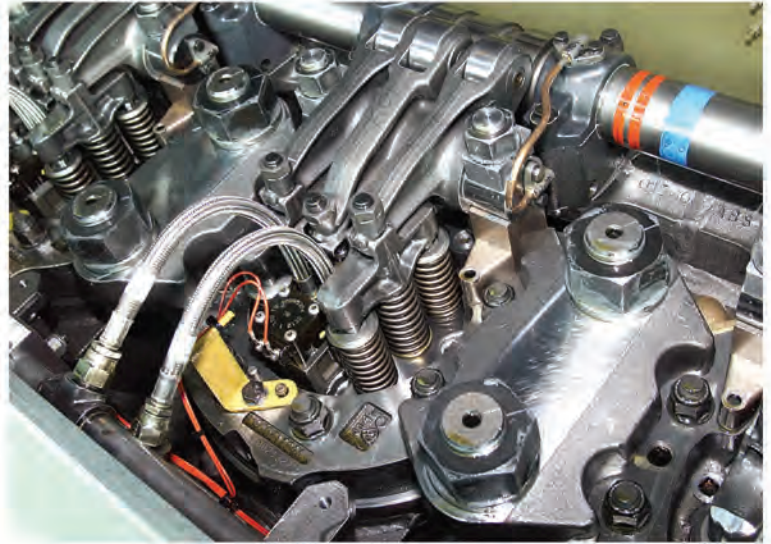


BEST IN-CLASS TRANSIENT RESPONSE

- E 23 offers the performance of a high speed engine with the durability advantage of a medium speed engine.
- Ample power margin throughout the entire operating speed range allows for optimized engine sizing and a single speed reduction gear.
- Avoids engine lugging under demanding vessel maneuvers.
- Accepts 100% block load in constant speed applications.

TOTAL COST OF OWNERSHIP ADVANTAGE

MAXIMUM UPTIME.



PARTS – LABOR – FLUIDS

Downtime is expensive. EMD engines are designed to minimize the amount of time needed for maintenance and repairs in order to maximize your productivity, keeping operational costs to a minimum.

- Reduced fuel consumption over previous models due to EPA T4F / IMO III technologies and low idle speed.
- Easy non-invasive inspection of cylinder components for simple predictive condition-based maintenance.
- Simple overhauls to minimize downtime – Power Assembly (head, liner, piston, rod) can be removed and replaced as one unit.
- Closed loop dosing control system optimizes (Diesel Exhaust Fluid) DEF usage.
- No oil change required between overhauls unless indicated by oil sample analysis.
- Lowest life cycle cost per horse power / hours of operation.

Ph: (985) 223-7100 • www.marinesystemsinc.com





Thomas S. Chance
Chief Executive Officer,
ASV Global

Thomas Chance founded C & C Technologies in his home in 1992. Today C & C is a global oil field surveying and mapping company with more than 550 employees in ten offices worldwide. C & C was the first company in the world to offer autonomous underwater vehicle (AUV) survey services to the oil industry and remains a world leader in the field. In April of this year, he sold C & C Technologies to Oceaneering International. Complementing the autonomous underwater vehicle business, Mr. Chance started Autonomous Surface Vehicles, Ltd., or ASV, in 2010. ASV has 140 employees, four offices across the globe and has built more than 100 state-of-the-art unmanned boats for the defense and commercial sectors. Under his leadership, both C & C and ASV have won numerous awards for both technical and commercial achievements. Mr. Chance has personally won numerous awards in his career including the 1996 Entrepreneur of the Year for the Gulf Coast Region, the 2006 LCG International Trade Development Group International Achievement Award, the 2008 *Marine Technology Reporter* Seamaster of the Year Award, and in 2018, was named a Louisiana Legend. Chance is former chairman of the National Ocean Industries Association (NOIA) Tech-



nology Policy Committee and former Board member of LAGCOE. He earned a Bachelor of Science in Electrical Engineering from LSU, a Master's of Science in Engineering from Purdue University, and a Master's of Science in Industrial Administration also from Purdue.

Autonomous vessels have gotten a lot of attention as of late, yet ASV has been putting autonomous solutions on the water for many years. Tell us a little bit about ASV.

It is exciting to say that ASV Global is the largest and most experienced unmanned vessel company in the world. We have delivered more than 100 new build USVs; about 10x that of our nearest competitor in the diesel-powered category. We have also converted 15 manned vessels to optionally unmanned and integrated more than different 40 payload types. In addition to building and selling USVs, ASV Global leases USVs, and provides field support.

Describe the importance of your collaboration with Metal Shark Boats in terms of your applications?

Metal Shark is a great client. They are certainly a leader in the small to mid-sized security vessel industry, and they are headquartered just 30 minutes down the road from ASV Global's US headquarters. The combination of ASV Global's autonomous control technology (ASView) and Metal Shark's line of patrol craft make for a powerful solution. Vessels can operate manned, minimally manned, or unmanned. In the unmanned mode, their missions are supervised by a remote operator via a satellite or radio link. Certain designs can station keep, or remain on patrol, for more than a week at a time. This greatly extends the value of the asset while minimizing the operational cost.

Describe the ASV technology that controls your products. Where some others are employing off-the-shelf technology, yours is proprietary, is it not?

ASV Global's technology is based around our ASView product which is a combination of modular software, hardware, and sensors integrated together to provide collision avoidance, line running, and when desired, remote supervision and control of the vessel and payload. While it is proprietary to ASV, and we install it on vessels that we build, we also install it on vessels others have built. Finally, we use ASView to convert existing manned vessels to optionally unmanned.

C-Worker 5 running a hydrographic survey in Alaska

I understand that your technology can be used as a bridge aid. Can you describe that?

A byproduct of our ASView autonomous control system is that it can be used on manned ships as a “second opinion” on the bridge regarding navigation maneuvers to avoid collisions. So at 3am when the helmsman is struggling to stay awake and the ship is on a collision course, our system will provide an audible alert and recommend a heading change to avoid an accident.

In which applications do autonomous vessels have the best opportunity to impact the markets?

Autonomous vessels are impacting a broad spectrum of the maritime market. When we started the company in 2010, we assumed that only a small percentage of the industrial and military vessels were candidates for becoming unmanned. However, our customers have been the ones broadening the unmanned applications. We are seeing expanded interest from both the defense and commercial sectors, we are seeing interest in far larger unmanned and minimally manned vessels, and we are seeing interest in the conversion of large existing manned vessels to optionally unmanned.

You mention minimally manned. Can you elaborate?

Some maritime missions require additional personnel on board to operate complex payload equipment or sensors. For example, a ship with an observation class ROV may include 20 people between the ship and ROV crews for 24 hour operations. The minimally manned concept is a stepping stone between manned and unmanned. With collision avoidance, autonomous control of the ROV ship, and remote control of the ROV via satellite, the crew count can be reduced to around six who are there for maintenance and docking purposes. This makes for lower ship build costs, lower daily operating costs, and potentially longer endurance. Minimally manned is a great option to lower costs while lowering technical risk with challenging mission payloads.

Where, so far, has been your best (most significant) penetration into the autonomous vessel markets been? Where is the next big thing likely to come?

Sixty percent of ASV Global's unmanned sales are in the defense sector, while the remaining 40 percent are in the commercial arena. ASV Global's technology is front and center on Europe's most advanced mine countermeasure program. We have also had great success with intelligence, surveillance, and reconnaissance (ISR) missions and expect that to continue to expand. It is a bit of a challenge to



predict where the next big thing will likely hit as there are many areas, both military and commercial, that are poised to capitalize on our game changing technology.

'Dull, Dirty and Dangerous' is the catch-phrase that describes the best reasons to employ autonomous technology on the water. What are some other good applications?

While dull, dirty, and dangerous are all good reasons, the main driver towards ASV technology is lower capital and operating costs. An unmanned vessel does not need state rooms, hallways, heads, a mess or galley, a large bridge, hospital room, lounge room, etc. This makes for a much simpler vessel that is less expensive to build and less expensive to maintain. Then with less crew, or no crew onboard, daily costs are less. The daily costs can be pushed down even further by operating at somewhat slower speeds, which are usually dramatically more economical.

Hydrographic surveys are a chief area where vessel operators see opportunities to provide value with autonomously driven tonnage. Give us some examples of where this has happened already?

Hydrographic surveys where unmanned vessels operate as a force multiplier to a mother vessel are certainly one of the most straight forward applications of autonomous vessel technology. ASV Global's unmanned vessels have been used over the past three years to support more than 15,000 km of hydrographic surveys in Alaska alone for NOAA, through their survey contractor, Terrasond.

Flag state and classification society rules – not to mention the U.S. Coast Guard and IMO – will have a great deal to say about what happens with autonomous vessels, and when and where they can operate. How far along that journey are we?

The regulators are being careful to provide a balance of guidance without killing the industry. ASV Global operates in a very transparent manner which likely helps our situation. Finally, all of our clients have been very rational about where and when they operate. With slow speeds and generally in open waters, unmanned vessel operations are far more benign than, for example, in the driverless car world which is dramatically more challenging.

Is there a particular flag state or operating area that is today particularly amenable to autonomous operations? If so, describe those areas or flag states.

I would say that all of the flag states that we have dealt with have all been amenable to autonomous operations at this point. They are all very positive and interested in unmanned vessel technology. Of course, we are not proposing to operate at high speeds in congested areas, which probably helps.

Some stakeholders and SME's insist that the autonomous role for workboats is much closer than it is for oceangoing tonnage. That being said; will there ever be a place for this on the 1,000-foot boxship? If so, are we a long way out from it?

The boxship is a great candidate for the bridge aid (as described earlier) to help existing manned vessels avoid collisions. This safety aid is available now and can possibly reduce insurance costs. New unmanned ships will be simpler and less expensive to build than their manned counterparts

and, if the client can accept it, the unmanned ship can operate at more economical speeds. To be prudent, it would make sense to have unmanned container ships manned as they come in and out of port. This can be facilitated with a small bridge or “tractor cab”.

Line-of-site control applications seem to be the most common solutions today – for example, a mother vessel technician controlling two vessels towing a spill boom or skimmer. Yet, hydrographic surveys can be performed using pre-programmed GPS grids and some applications boast the possibility of a satellite link. How close are we to realizing the last two options?

ASV Global, and our clients, have remotely supervised many of our unmanned vessels as they have navigated along pre-programmed grids. We have also conducted numerous operations while monitoring operations from shore via satellite. With the continuous proliferation of new satellite communications systems, costs are going down while transmission speeds are going up. New low Earth orbiting (LEO) satellite systems also offer much lower latencies periods, facilitating robust joy stick control for remote docking and ROV operations.

At this year's MACC show, the ASV / Metal Shark entry featured not only an autonomously controlled vessel but also one that had drone capability on board. This is a real force multiplier, isn't it? Very much something that the Coast Guard could use to double or triple their eyes and ears on an interdiction mission, yes?

The ASV / Metal Shark vessel demonstrated at MACC certainly has the attention of the US Coast Guard as well as coast guards from other countries. A modification of that vessel can be used to loiter offshore for a week or more while



One of ASV's worldwide control centers

providing persistent reconnaissance back to shore via satellite. If a suspicious vessel is detected, the loitering vessel can be dispatched to intercept. The aerial drone can be deployed for a better view from a safe distance. The implications for lower total costs and higher total days at sea are pretty striking.

And, speaking of force multipliers, and while most stakeholders are hesitant to discuss the role of autonomy in reducing the necessary number of mariners and personnel, there can be no doubt that this will be at least one of the impacts on the marine business going forward. That said; autonomy creates other jobs that will displace more traditional seafaring roles. Would you agree?

The dirty little secret of the unmanned boat business is that it is not completely unmanned. We have talked about reduced manning, we have talked about bridge aids on manned vessels, and we have talked about manning unmanned ships as they come in and out of port. There is also the maintenance of the vessels once in port. Also, a lot of existing ships will not get upgraded with unmanned technology because of grossly unreliable existing equipment. My guess is that the natural attrition rate of mariners due to retirement, etc., will more than offset jobs which are lost due to automation.

Emerging technologies dictate that the mariner of tomorrow will be different from the mariner of today – both in terms of skill sets and the training required to get them up to speed. Do you agree?

The skill set of mariners has continued to advance over the decades and will continue to do so.

What is the biggest challenge to creating autonomous systems for a garden variety workboat hull? Why?

There are really no substantial challenges. ASV Global has built and converted many unmanned vessels, most under 40' (12m). Making larger vessels operate unmanned is actually easier than making smaller vessels operate unmanned. ASV Global's software is agnostic and adapts to all vessel shapes and sizes. Larger vessels do have more systems to monitor, but they also have better seakeeping ability, bigger radars, and allow for larger satellite antennas.

You are building a C-Worker 5 vessel for the University of Mississippi – tell us about that hull, why it is special, and what it will do.

The C-Worker 5 unmanned vessel is a 5-meter direct drive diesel that is ideal for hydrographic survey operations. This is the fifth C-Worker 5 we have built, and there are several improvements that this vessel will have over the earlier systems. These USVs can operate for several days at a time

at a 6-knot cruise speed. The vehicle is capable of operating with a high frequency multibeam sonar, towed side scan sonar, and a CTD casting system. The University of Mississippi (USM) procurement also includes a dual davit launch and retrieval system (LARS) that can be adapted to a ship of opportunity. The C-Worker 5 will be used in USM's unmanned certification training program, as well as the university's bachelor's and master's degree hydrography programs.

One possible route for autonomous vessel deployment is in the use of an in-house fleet maintained by the builder (ASV, for example) for routine charters to other firms. Does that concept have legs?

Not only does the idea have merit, it is being done. ASV Global has an in-house fleet of autonomous vessels that it leases out to clients on an as needed basis. ASV engineers will normally integrate the client's payload into the vessel and test it in a nearby lake or offshore. The client's personnel can then be trained to operate the autonomous vessel, or ASV Global can provide field support. Leasing is a great way for those new to autonomous vessel operations to become more familiar with the technology prior to making a procurement.



**CUSTOMER CONFIDENCE
FOR OVER
A HALF CENTURY**

www.gladding-hearn.com

GLADDING-HEARN
SHIPBUILDING
Duclos Corporation



The FBI Doesn't Record Statements, But You Should

A primer on the potential pitfalls of the garden variety marine claim. It is easier than you might think to manage that risk.

By Larry DeMarca



DeMarca

The one thing that causes great anxiety and expense in the litigation arena, in addition to lying claimants, is uncertainty. Uncertainty causes litigants to produce voluminous documents, issue a ton of third-party record requests, take a lot of depositions, and have a difficult time resolving the case because no one can agree what transpired immediately before the event giving rise to the litigation. This uncertainty causes the

company to expend significant resources defending the litigation and creates a situation where a litigation outcome is difficult to predict.

The antidote to this poison is the implementation of a program that provides for the early investigation of a claim including the taking of statements from all potential witnesses and compiling the documents that may be relevant to the claim. Spending the time taking statements will cost the company resources on the front end. However, it will save the company significant resources down the road.

As an example, earlier this month, we mediated a case for a client where the plaintiff was injured as a result of a cable tray that fell from height where it was left unsecured. This type of case should be pretty simple and, once the determination is made as to who left the tray unsecured, the case should resolve itself pretty quickly. However, as this project involved the work of at least four sub-contractors, a project manager and the facility owner, we took 25 depositions and discovered nothing more than everyone agreed that an unsecured cable tray shouldn't be stored at height and that no one was willing to admit to placing it there. This process cost all of the litigants a significant amount in defense costs. Had each of the potential witnesses been interviewed aboard the vessel, and a determination been made as to who placed the cable tray in position, the case could have resolved itself quickly on reasonable terms funded by the

negligent defendant. Interviewing witnesses while aboard the vessel could have saved each of these litigants many thousands of dollars in defense costs. Uncertainty is the driving force in driving up litigation costs in cases like this that otherwise wouldn't warrant significant discovery.

Although the scope of interviews can vary from incident to incident, the premise remains the same. It is important to get to the bottom of the case by interviewing all of the witnesses that may have some knowledge about the incident. In practice, I prefer to casually interview a witness to get a feel for what they know and then reduce the interview to a more concise witness statement. This gives the witness a chance to tell you what they believe happened without being prompted to tell a certain story. Once the details are ironed out, a formal statement can be taken. Such a statement can be recorded, handwritten, typed and signed, or written on a form provided by the company.

It is very important to capture all of the potential witnesses. Often, a company will start the process of interviewing the crew and stop once it is determined what may have caused the incident. Although terminating such an investigation makes sense considering that the goal is to determine what happened, it exposes the company to potential long-term liability. Without fail, the witnesses that were not interviewed will surface at a later date telling a story that is entirely different from that provided by the few witnesses that were interviewed. Unfortunately, it is amazing what a layoff or termination will do to a witness' memory.

A split in testimony will be the reason that defense costs skyrocket and the company's potential exposure is higher. Once a claimant's legal team locates a crack in your armor, they will pursue that lead trying to expand the crack. One witness contradicting another on a salient issue pours fuel on the investigative fire and the scope of the discovery net will continue to grow with the hope of picking up favorable testimony. This costs the company a significant amount in


defense costs and increases the company's liability exposure as inconsistent testimony always creates issues.

The increased cost of litigation can be avoided by taking statements from all potential witnesses immediately after the accident. Once a witness provides a statement, this statement can be used at a later time to "refresh his recollection" of how the event occurred or, in the event that he no longer works for the company, keep him from providing differing testimony with the goal of hurting the company or helping the plaintiff, both of which can be expected from a former employee, especially if he has been terminated.

Along with taking statements, it is also a good practice to compile all of the documents that may be needed during the defense of the claim. These documents will include relevant contracts, work orders, safety and equipment manuals, JSAs, vessel logs, client instructions, photographs and accident reports. Compiling the information while it is readily available, and providing it to your defense team immediately upon retention, will save the company resources as you won't have to search through archived materials or pay your legal team to compile the information for you. You save litigation costs if you can provide your attorney with everything that they need "in the can" instead of having them locate the information later.


You may be asking, is it always good to compile all of this information early? And my honest answer is, not always, as some claims are just bad. But, in most cases, the compilation of this information will help your case and save you significant resources over the long run. If you have concerns about a particular incident, it never hurts to consult your legal team for advice early on in the process. Although it costs a bit more to retain counsel before it is required, they can help guide your investigation and provide the information generated with a cloak of protection provided by the attorney client privilege.

Mr. DeMarcaj is a partner in the law firm of Baldwin Haspel Burke & Mayer. His areas of practice include Commercial Litigation, Admiralty, Personal Injury, Transportation, Real Estate, Construction and Corporate Law. Prior to attending law school, Mr. DeMarcaj served on the Washington based legislative staff of Congressman Jimmy Hayes. On the WEB: www.bhbmlaw.com

 **Herbert-ABS**
Software Solutions LLC

Innovation | Safety | Performance

STATUTORY COMPLIANCE FOR TANKERS



DIRECT DAMAGE STABILITY & CargoMax™

USER DRIVEN | ENDORSED WORLDWIDE: Herbert-ABS CargoMax™ systems with the Direct Damage Stability option have been approved by IACS Classification Societies for decades. Meet the new IMO MARPOL, IBC, BC, GC & IGC requirements for mandatory verification instruments onboard new and existing tankers.

www.herbert-abs.com

BRAKING SOLUTIONS FOR THE MARINE INDUSTRY



Our products are used in a wide range of marine applications:

- Suction Dredger
- Main Propulsion
- Bow Thruster
- Diesel Pump
- Fan Drive
- Marine Pump
- Marine Propulsion
- Pump Drive
- Compressor Drive



HILLIARDBRAKESYSTEMS.COM

Multiple Miscommunications Lead to Untimely Unemployment

By Randy O'Neill



O'Neill

A professional mariner faces a variety of threats to his or her U.S. Coast Guard-issued license, livelihood and professional reputation, especially immediately following a marine casualty. Sometimes, that threat comes from what one might believe to be an unlikely source ... the mariner's own employer. What's more, the threat of license suspension or revocation (S&R) proceedings can be ratcheted up significantly if the company's disciplinary actions following a marine casualty result in employment termination of the involved professional mariner.

The case described herein clearly demonstrates how that linkage, coupled with a failure to communicate key charter party information, can lead to a very negative outcome for a typical mariner. In this case, the trip began like countless others in a busy Northwest inland port just before noon on a sunny and cloudless early spring day. Following the orders of an ATB's master, its chief mate had taken command of the vessel at 1135 hours and was transiting east-bound loaded with 75,000 barrels of diesel oil. The vessel had no mechanical or handling issues during the trip, had an accurate voyage plan and was plotting its voyage plan every 30 minutes. Additionally, there were no problems with the vessel's radios or radar systems.

PASSING INTEREST

At approximately 1500 hours, the Chief Mate, who was alone in the wheelhouse, acquired a tug and barge combination departing from a port north of his vessel's location. At approximately 1700 hours, he contacted the tug using VHF Channel 13 and discussed the tug captain's request to execute a passing maneuver. At the time, the lead vessel was traveling at 11 knots and the barge-towing tug was making close to 13 knots. Subsequently, it was agreed that the tug/barge combination would overtake the fuel-loaded tanker barge on two whistles, but would not cross the lead vessel's bow. It was also agreed that, after being overtaken, the former lead vessel would come left a few degrees to

continue its voyage.

In accordance with this straightforward and agreed upon plan, the tanker barge's acting captain did not change his vessel's course or direction, and there was no more communication between the two vessels until immediately prior to the collision.

At approximately 1715 hours, the tanker barge's chief mate changed charts in the wheelhouse and marked the position of the other vessel. Shockingly, he observed the tug on a new course that would angle across the bow of his tanker. He immediately engaged the throttle; first going to Stop and then Full Astern while concurrently contacting the tug's captain warning him that his vessel was not going to clear his tanker's bow and instructing him to come hard to port to avoid a potential collision. Unfortunately, it took about 25 seconds for the tug to come hard left and it did indeed strike the port bow of the tank barge with its starboard quarter.

After the collision, the Chief Mate conducted a quick inspection of his tank barge and noted that damage was apparently confined to the skirt on its port side being deflected inwards. At that point, he could not determine what damage, if any, had been sustained by the tug. Its barge, trailing 500 - 600 feet astern, did not strike either vessel.

The tanker's captain was aware of no personal injuries suffered as a result of the collision, there appeared to be no pollution and his vessel's ballast tanks did not incur any leaks or damage. He then took the further steps of taking photographs and video of the damage to his vessel and forwarded them to his Company as part of his report of the incident.

After speaking with company management, he notified the Coast Guard within 10 minutes of the incident and a U.S. Coast Guard vessel responded to the scene approximately 40 minutes later. No interviews were conducted by investigative officers aboard the first responding vessel, but in the interim, the chief mate contacted his license insurer and was appointed a maritime attorney who spoke with him by cell phone prior to the arrival of a second Coast Guard cutter which arrived 30 minutes later. These inves-

tigators did indeed conduct interviews of officers aboard both vessels before administering a breathalyzer alcohol tests and instructing them to report for further drug and alcohol testing as per regular post-accident protocol.

NO HARM, NO FOUL?

In the end, the Chief Mate on the ATB was exonerated, having been on board the privileged vessel and having acted properly immediately prior to the event. An unfortunate, but not particularly unusual event; right? No apparent disciplinary exposure to the tanker's chief mate, right? Not so fast. While the Coast Guard investigators initially showed little inclination in pursuing charges against the chief mate, his company's almost immediate termination of his employment rekindled their interest.

His employer's decision to fire him was triggered by his failure to abide by a provision of the oil company/charter party which required that "... all times the vessel was underway, at least TWO crewmembers be present in the wheelhouse." At the time of the collision (and from the commencement of the voyage almost six hours earlier), the chief mate was alone in the wheelhouse. And, although he claimed ignorance of such a 2-man-in-the wheelhouse requirement, company policy demanded its strict adherence.

Now, the real fear arose that, if his company claimed 'gross misconduct' on his part as the reason for his termination, the Coast Guard would be emboldened to more aggressively pursue S&R proceedings against his license. Thankfully for him, his company did not cite gross misconduct for his termination and the Coast Guard followed suit by declining to bring charges against his license.

The 'takeaway' from this case? Threats to a marine license, livelihood and professional reputation can come from unexpected sources. These include miscommunication of key company policies between you and your employer that might put you and your maritime career 'on the beach.'



Randy O'Neill is Senior Vice President with Lancer Insurance Company and has been Manager of its MOPS Marine License Insurance division since 1984. Over the past 29 years, Mr. O'Neill has spoken and written on many occasions on the importance of USCG license protection. He is a regular contributor to MarineNews magazine. He can be reached at: roneill@lancerinsurance.com

Rose Point ECS and Hatteland Series XG2

Best Meets Best

Rose Point ECS software combined with the Hatteland Series X G2 all in one systems facilitates meeting Coast Guard NVIC 01-16 requirements for paperless charting transit.

Rose Point ECS provides the gold standard for navigation software in the US, and Hatteland is a worldwide leading manufacturer of 60945 type approved systems.

Together they provide a unique solution that moves marine navigation into the digital age.



ROSE POINT

HATTELAND[®] DISPLAY

www.rosepoint.com/rose-point-ecs
for more information contact john@rosepoint.com



THE MARITIME NETWORK

The maritime industry's largest group

JOIN → TODAY!



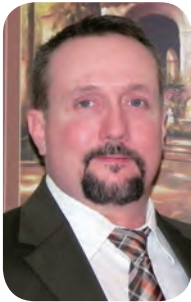
Connect with more than 128,000 members



Mariner Credentialing Evolves – for the Better

As the Offshore Service Vessel Dynamic Positioning Authority's new dynamic positioning operator (DPO) certification body evolves, its pathway to training and certification gives mariners options, and a seat at the table.

By Steve Mason



Mason

The other day I was thinking about what makes me a captain. What I came up with as the relevant points were the ability to handle the vessel and read the environmental conditions, leadership abilities, risk detection and mitigation, managing peers, and mentoring my crew. In short, what makes me a captain is a culmination of all of the skills I've learned during 25 years on the water.

Unfortunately, in today's world of quality assurance and paperwork, some groups seem to discount all of these abilities if I don't have the documents to prove what I hold. As such, I – like almost every mariner I know – carry a zip-up three-ring binder that contains all of my licenses, certificates, credentials, and logbooks. To some, this binder and its contents are more of what makes me a mariner than the skills I personally possess.

While I don't agree that any piece of paper makes me a mariner, I do know that these documents are what allow me to get paid. For this reason, I am very protective of them and I do everything I can to make sure that my logbooks, and other mariner documents do not leave my possession.

I have good reason to be concerned. When I sent my logbook in to the Nautical Institute for review during an attempt to revalidate my DPO certificate, I didn't get my logbook back for eight months. This delay not only put my career in mariner purgatory for eight months, it also – due to Nautical Institute rules prohibiting the recording of sea time while they hold your logbook – prevented me from using any of the sea time I accrued during that time towards my next revalidation.

Also, the Nautical Institute informed me that they had made change to documenting requirements for sea time, just before I applied. Thus, even though my time was recorded in the same way as everyone on my boat, exactly how I had been told to record it, and was not disputed by the Nautical Institute, it was no longer in their preferred

format, and therefore was not counted. That discrepancy meant that three years of the experience contained in that three-ring binder essentially didn't happen.

With this history, I was intrigued about the Offshore Service Vessel Dynamic Positioning Authority (OSVDPA) when they opened their doors. I heard that the OSVDPA was created with heavy input from actively sailing mariners. As a result, the OSVDPA claimed to have removed some of the headaches of applying for a DPO certificate and also ensured that the OSVDPA was always available to answer questions from mariners. For this reason, I applied for an OSVDPA DPO Certificate even though I still had a few years until my Nautical Institute certificate expired.

Like the Nautical Institute, the OSVDPA wanted to review a physical copy of my logbook. I told them that I was unwilling to give up original copies of those documents that 'make' me a captain. The OSVDPA said they understood and instead of requiring me to mail my logbook in, they offered to meet me somewhere to conduct the review. That understanding and common sense really impressed me and since then I have not only earned my DPO certificate with the OSVDPA, I have also been approved to conduct their onboard assessments.

Additionally, the OSVDPA has a membership program. This program is completely separate from their DPO certification, but it allows the OSVDPA to deliver information about trends in DP incidents, new utilization techniques, or changes in to OSVDPA program to everyday mariners. The membership program also allows everyday mariners to provide feedback to the OSVDPA. Said another way, membership in the OSVDPA allows mariners to have a voice in what the OSVDPA requires and how the OSVDPA program works.

Membership provides two primary ways for mariners to provide feedback to the OSVDPA. First, the OSVDPA Board of Directors conducts an annual conference call with members. This call is an opportunity for mariners to discuss with the decision-makers what within the OSVDPA system is working and what can be improved upon.

This year, the call lasted more than two hours, with the Board members taking a genuine interest in our thoughts.

One of the issues I brought up on this year's call was the issue of logbook review. I spoke of my experience and asked why the OSVDPA needed to physically review my logbook. The OSVDPA staff said there was a concern about forgeries made to electronic copies. The Board saw that ensuring authentic copies was a necessity but also agreed that an alternative means could be found. I asked if a notarized copy of a logbook would suffice. The Board liked the idea and directed the OSVDPA staff to determine if this idea could work in practice.

The second way members can provide input into the OSVDPA is the Technical Advisory Council (TAC) elections. OSVDPA members participate in an annual election whereby they pick one of their own to sit on the OSVDPA Technical Advisory Council. This year, I won the election and have represented my fellow mariners on the body that sets and reviews OSVDPA policies and requirements.

In this position, the TAC and OSVDPA staff took my suggestions to heart and formulated a specific process for how the OSVDPA would accept a notarized copy of a logbook instead of requiring mariners to send in their original logbook.

This means that DPOs don't need to risk having their logbook lost in transit, or having a clerical error cause their logbook to get held for weeks, months, or even years at a time. Of course, this change isn't the biggest or most important change in DPO certification. However, it is proof that the OSVDPA is actively seeking out mariner's opinions, and when mariners provide their opinion the OSVDPA listens and does what it can to address the concerns.

OSVDPA understands that what I keep in that three-ring binder is not what makes me a DPO. They appreciate that seamanship, risk management, and mentoring are what make me a good DPO. This allows me to keep my mind focused on really being a mariner, not keeping track of the documents in my binder. I appreciate their ability to listen to mariners and value what we do on a daily basis.

Capt. Steven Mason is a certified dynamic positioning operator (DPO) and currently holds an OSVDPA Class A DPO Certificate, Nautical Institute Unlimited DPO Certificate, and is also an OSVDPA Qualified on Board Assessor (QOBA). Capt. Mason is a Master Mariner and has 23 years of experience working on both Foreign and Domestic waters and he has always been an advocate for his fellow mariner. This year, he was elected by his peers to serve as the member representative to the OSVDPA Technical Advisory Council. The opinions in this article are his alone and may not reflect the positions of New Wave Media.



THINK AHEAD

AHEAD Sanitation Systems

#1 in the #2 Business

NEXT GENERATION TECHNOLOGY

Integrated Marine Sanitation Systems, Products, Parts & Supplies

USCG Certified Type II (MSD) title 33 CFR 159 for Inspected & Uninspected Vessel with Worldwide Certification for a (STP) in accordance with IMO resolution MEPC227.(64)



AHEAD TANK™

Constructed of a Durable, Lightweight, Corrosion Proof LLPE (polyethylene) Material

HEADS UP It's chemical resistant
Harsh Environmental Proof
And will not rust or corrode

Visit us at www.aheadsanitationsystems.com or Call 1 337 330 4407



BSRM, Inc.
Commercial Marine Products

Piling Bumpers
Anti-chafing

Deck Plates

SEA HOSS

HOSSPAD MARINE PRODUCTS ARE DESIGNED FOR EXPOSURE TO THE ELEMENTS

DOCK BUMPERS - Protect your boat and dock from chafing and damage.

Our dock bumpers are designed to minimize rub/chafing and direct damage to the boat and dock.

THEY COME IN VARIOUS FORMATS TO MEET YOUR NEEDS.

- 1. FLAT - Protects the dock -** Lessening costly maintenance and repairs to the dock Bulk Head Beams due to chafing.
- 2. STACKED BUMPERS - Horizontal Mount.**
They are Mounted to provide Maximum absorption from boats ramming into the dock.

Typical Sizing:

A. 4.5"(W) x 8.5"(H) X 5-72"(D) B. 13.4"(W) x 8.5"(H) X 5.77"(D)
C. 24" x 8.5" D. 60" x 8.5"

(Mounting Hardware is powder coated steel L Brackets)
(W=Width across; H=Height; D=Depth)

www.bsrm.com • (888) 509-0668

Waterway Pipeline Task Force Formed

Dredging Contractors of America and the Council for Dredging and Marine Construction Safety Create Public-Private Task Force to Ensure Safe Operations in Waterways with Submerged Pipelines.

By Michael Gerhardt



Gerhardt

Industry and government have come together to address the problem of buried pipelines in our waterways. Many oil and natural gas pipelines buried in waterways are not where they are supposed to be, are unmarked, are marked incorrectly and/or do not have the appropriate depth of cover, thereby creating serious safety and security problems. The consequences are potential loss of life, injury, environmental pollution and destruction

of assets. These unacceptable hazards must stop, and together, industry and government are doing something about it.

As U.S. ports deepen their channels and harbors and the dredging workload around the country, especially in the Gulf of Mexico, reaches record levels over the next few years, the U.S. dredging industry and its Council for Dredging and Marine Construction Safety (CDMCS) are leading an initiative, in partnership with key stakeholders, including state and federal agencies, energy associations and pipeline companies, to ensure safe operations in waterways with submerged oil and natural gas pipelines through enhanced communication, collaboration, and the active exchange of best practices.

NUTS & BOLTS: PINPOINTING THE PROBLEM

Section 10 of the Rivers and Harbors Act of 1899 requires all permits for work in, over, or under navigable waters of the United States, including pipeline installations, be issued by the U.S. Army Corps of Engineers. However, Section 10 does not require permits to be updated with changes in ownership data; shifts in location coordinates; the transfer of contracts, plans, specifications or even that the physical markings in the waterways will be checked and

repositioned if necessary. This misinformation creates enormous safety and operational problems for dredging companies and poses significant danger to crews, vessels, the environment, and local communities. With over 35,000 miles of pipelines in the Gulf of Mexico alone, the chance of striking an oil or natural gas pipeline is a daily concern.

In recent years the U.S. Army Corps of Engineers (USACE) has been developing a national underwater utility database called the Pipeline Location and Observation Verification Enterprise Repository (PLOVER), which would be populated with owner as-built data verified by comprehensive USACE reconnaissance and/or USACE-approved contractor findings and would also hopefully include toe and centerline data. USACE is encouraging better coordination between their navigation and regulatory branches on future installations and pushing their districts to conduct surveys to identify old or abandoned installations. While these and additional efforts are underway to ensure all pipeline and utility crossings are properly identified in the water, in the permits, and in the contracts prior to dredging, the industry is taking a “we can’t wait” approach. Industry is engaging stakeholders to educate and safeguard workers.

CDMCS

On May 16, the CDMCS Pipeline Task Force was created and charged with developing a joint best practices safety manual for operating near submerged pipelines. It will be chaired by William P. Doyle, CEO and Executive Director of the Dredging Contractors of America (DCA). I am the Pipeline Task Force Director. U.S. dredging companies, pipeline companies, the Pipeline and Hazardous Material Safety Administration, the U.S. Army Corps, the U.S. Coast Guard, Coastal Area Marine Operators, Gulf Safe 811, the State of Louisiana Pipeline Safety Office, Loui-

siana One Call, the Louisiana Mid-Continent Oil and Gas Association, the American Petroleum Institute, and many others have joined forces at the most senior and political levels to identify knowledge gaps and breakdowns in the system, assess current state and federal requirements, share information, and deliver a product that is specific and comprehensive. While its initial focus is the Gulf of Mexico, the task force expects to gradually address the issue on a national scale.

The CDMCS Pipeline Task Force is a great example of government agencies working together and with industry towards a solution. It's the first such inter-agency and public-private taskforce of its kind for this issue, and the U.S. dredging industry and the CDMCS are extremely pleased that stakeholders are taking an interest in addressing this critical safety and security matter.

The CDMCS is the national unified voice for safety and formal partnership between the U.S.-flag dredging industry and the U.S. Army Corps of Engineers. Members are committed to the council's vision of creating a 100% injury-free workplace for the dredging and marine construction industry by embracing its core values of teamwork, trust, and transparency and executing its mission of raising the industry standard on safety and building a safety-first culture.

We look forward to the task ahead. Safety first! It's a shared responsibility.

Michael Gerhardt is Vice President, Dredging Contractors of America, and the CDMCS Pipeline Taskforce Director.



Credit: Cashman Dredging

SF Marina Systems

Floating Piers for Super Yachts, Tugs and Ships

32' x 150' with 5ft freeboard

32' x 328' with 3.5ft freeboard

Concrete
 Products, Reputation, Relationships
sfmarinausa.com

SUBCHAPTER M CASTS OFF



Credit: U.S. Coast Guard photo by Lt. Anthony Solares

Initial reports show that the towing industry is adjusting well to the new normal on inland rivers. In fact, it is business as usual for most.

By Tom Ewing

July 20, 2018 was a critical date for tow boat operators. That was the deadline for all U.S.-flag towing vessels – over 26 feet, or less if used to assist with transport of oil or hazardous materials – to be in compliance with Subchapter M, the U.S. Coast Guard’s towing vessel safety regulations. It’s been a long time coming. As a regulatory program, the CG finalized Sub M in July 2016, setting a two-year implementation time-line.

As most towing operators know, Sub M is an expansive and dynamic program pertaining to vessel safety and safe operations. Central to Sub M is the Coast Guard issued Certificate of Inspection (COI), the document recognizing and formalizing Sub M compliance and, most critically, permitting the vessel to legally operate for five years, when it must be inspected again.

ANCHORED IN SAFETY

Sub M’s evolution stemmed from a number of horrific towing accidents almost 20 years ago. These incidents led to Congressional action. The 2004 Marine Transportation bill added towing vessels as a vessel class subject to USCG inspection. Among numerous provisions, the bill authorized establishment of a safety management system “appropriate for the characteristics, methods of operation, and nature of service of towing vessels.” The bill addressed maximum hours of service and required a demonstration project on “Crew Endurance Management Systems.” Hours-of-service, though, did not make it into Sub M’s final rulemaking. Another new demand was for electronic charts for towing vessels.

The Certificate of Inspection (COI) is the critical, cen-

Coast Guard marine inspectors from Marine Safety Unit Portland, present a Subchapter M Certificate of Compliance to the crew of the towing vessel Sommer S., operated by Shaver Transportation, in Portland, Ore., July 20, 2018.

tral element within Sub M. For vessel owners, there are two paths to certification. One is to arrange for USCG inspectors to directly inspect and approve a vessel's towing safety management system and issue the COI. The second is to work with an approved TPO – third party organization – which can independently document that a vessel meets Sub M's requirements and, based on that documentation, recommend that the USCG issue a COI.

The American Waterways Operators (AWO) estimates that Sub M adds about 5,600 vessels to the Coast Guard's marine inspection program. These inspections are being phased in, starting July 20, over the next four years. A company is required to have 25% of its towing fleet inspected each year. By July 19, 2022, 100% of the towing fleet should be inspected. Small operators get a break: if you own just one tow boat the first COI deadline is July 20, 2020. For marine and environmental safety, Sub M is timely, starting when increasing quantities of crude oil and chemicals are being transported by barge due to an increase in domestic production of oil and of natural gas.

Early reports indicate that Sub M implementation is off to a good start; at least among the companies receiving the initial cOIs, both via the more traditional USCG inspection process and via the TPO. On July 21, the Coast Guard announced that it had issued one of the first COIs to Shaver Transportation Company, headquartered in Portland, OR. Earlier, in May, the first of 50 tugs operated by Vane Brothers Company, headquartered in Philadelphia, received its COI, reportedly the second in the nation. Vane used the third-party option, contracting with the American Bureau of Shipping.

THIRD PARTY OPTION

The TPO offers important advantages. For one, the vessel itself is not physically inspected by the USCG, which relies on the TPO's verification. Plus, the TPO offers a company the chance to work with just one Coast Guard sector rather than within each Sector where its vessels may be working. If a company's tugs are working up and down the east coast, for example, the TPO process can proceed within just one locale, avoiding the logistical challenges of tending to separate COI applications in multiple USCG sectors, say Philadelphia and Norfolk and Tampa Bay. For the USCG, the TPO allows resources to be focused on

higher risk vessels and situations. Overall, the TPO should allow Sub M implementation to move more quickly, both for vessel owners and the Coast Guard.

Of course, the TPO does raise issues. It means the USCG is certifying as safe a vessel it hasn't seen, just read about. With the TPO, the company being inspected is paying for its own inspection, which can raise questions. The Coast Guard can step in if it suspects that the TPO process is compromised.

The third-party option was an important policy goal for the American Waterways Operators and its member companies. AWO has been working on towing safety protocols since 1994, well before the 2004 Maritime bill. AWO's Responsible Carrier Program (RCP) and Sub M developed concurrently. In 2008, compliance with RCP became a condition of AWO membership (AWO actually terminat-

Petty Officer 1st Class Jeff Deronde, a marine inspector at Coast Guard Marine Safety Unit Portland, presents Scott Shaver, president of Shaver Transportation with a Subchapter M Certificate of Inspection using the Coast Guard option.





“There will be much more interface with the Coast Guard, much more dialogue, because of the inevitability of maintenance and operational issues which will now be under the review of the Coast Guard.”

– Captain Rick Iuliucci, Vane’s General Manager at Vane’s Philadelphia City Dock facility

ed some memberships because companies did not want to sign-on to the RCP requirement). Given this commitment, AWO worked to establish that a company’s adherence to RCP should signal compliance with Sub M, not just facilitating the inspection process but fulfilling it. In June 2015, AWO received notification that the Coast Guard accepted the RCP as a Towing Safety Management System.

SUB M ARRIVES; INDUSTRY STEPS UP

In a July 19 press release AWO welcomed and highlighted Sub M’s startup: “The implementation of Subchapter M is a milestone to be celebrated,” said AWO President & CEO Tom Allegretti. “This is a tremendous achievement, and while it is far from the end of our industry’s safety journey, it is undoubtedly a critical milestone on the way.”

Vane Brothers received their first COI for the tug Brandy-





“We need a clear understanding of who’s doing what so everyone can use resources wisely and we avoid confusion and bottlenecks. Overall I think the industry is in a good position.”

– Mary McCarthy, Manager of Quality Systems,
Canal Barge Company

wine in May. The process took about 12 weeks, from initial filing to certificate. Captain Rick Iuliucci, Vane’s General Manager at Vane’s Philadelphia City Dock facility, said Vane’s COI process formally started early in 2018. Vane is an AWO member and the company selected the TPO, contracting with the American Bureau of Shipping. The RCP was the basic framework for Vane’s safety management system. Beyond this, and where some firms are using outside software solutions to house their SubM documentation, Vane has in-house systems created by its own software engineers that the firm uses for record keeping.

The COI process went smoothly for the Brandywine. But there’s an implicit, critical lesson here: things went smoothly, but that was an outcome built on a lot of hard work; it didn’t just happen. Iuliucci and Vane have been in Sub M ‘prep’ mode for years. The steps to a COI were final steps, hardly tentative or speculative. To the contrary, Iuliucci is confident of plans to bring all of Vane’s tugs into compliance by 2022. Vane will stick with ABS as their third-party contractor.

Iuliucci was asked about challenges going forward. After all, one tug is complete, but there are 49 to go. He

said that businesses need to be cognizant of Sub M’s non-stop logistics – 12-13 tugs (for Vane) need to be kept in compliance and pass inspection every year. He said managers “need to be aware that this is constant and start to determine now how to best stagger program requirements among vessels and operations.”

Iuliucci also noted that a COI is not something that gets framed and hung on the wall. “A COI is not carte-blanche for operations,” he said, adding, “It is a process, something to incorporate into a safety system.” He also predicted a much more engaged relationship between the Coast Guard and vessel owners. “You could very well encounter a ‘no sail’ item under Sub M,” he advised, depending on how the Coast Guard might react to more real-time reporting of machinery or equipment failures. “Those kinds of directions are going to happen under Sub M,” Iuliucci said. “There will be much more interface with the Coast Guard, much more dialogue, because of the inevitability of maintenance and operational issues which will now be under the review of the Coast Guard.”

Mary McCarthy is Manager of Quality Systems with Canal Barge

Company, Inc., based in New Orleans but operating towboats throughout the inland river system. McCarthy said that, between CBC and its Chicago-area fleet company Illinois

General HydroStatics (GHS)

- * New Feature in 2018:
6-DOF Frequency-domain Seakeeping Module.
- * Still Industry-Leading:
Multi-Body Module for Roll-on/off Studies & Salvage
IMO Probabilistic Damage Evaluations
Measures Outflow Compliance with MARPOL 73/78
- * Advanced On-board (GLM) Features:
Loading Automation Support with Sensor Interfaces
Automatic Ballast-Water Logs with GPS Coordinates
And Many More

www.ghsport.com



General HydroStatics
Ship Stability and Strength Software

GHS Full-featured naval architect's system
BHS Basic hydrostatics and stability

GHS Load Monitor (GLM) ...Onboard configuration

Creative Systems, Inc.
Creators of GHS™

P.O. Box 1910 Port Townsend, WA 98368 USA
phone: (360) 385-6212 email: sales@ghsport.com

**For 46 years, the software
that naval architects love.**

www.GHSport.com



“Shaver has been very aggressive in incorporating Sub M aspects into our Safety, Quality, and Environmental (SQE) Management System over the years so the foundation was in place.”

– Jon Hellberg,
Compliance and Risk Management Officer at
Shaver Transportation Company

Marine Towing, they have over 40 vessels that will receive COI's over the next four years; two vessels are in the queue right now. Again, though, that readiness is because safety, as a program, is ingrained in CBC's staff and operations. McCarthy and her team are building on longstanding experience with safety management system principles and inspected tank barges.

“This is standard operating procedure for us,” McCarthy said. Her advice to companies not yet immersed in Sub M is first to establish “internal buy-in. “The culture has to be there. Management's approach has to be: Safety Management System? Sub M? What do you need?” McCarthy said up front expenditures pay off later.

McCarthy was asked about Sub M as a budgetary item – did it require specific resources and cash, diverting investments elsewhere? “No, most Sub M expenditures for CBC are related to activities we're already doing under the Responsible Carrier Program. Time and personnel are in place.” Exceptions include new Subchapter M requirements for surveys, i.e., vessel inspections. For CBC, however, no additional ‘Sub M’ line-items are in the budget.

McCarthy said that there is still plenty of work to be done. This includes understanding the role of the Coast Guard versus the role of the TPOs. “We need a clear understanding of who's doing what so everyone can use resources wisely and we avoid confusion and bottlenecks,” McCarthy said. Nevertheless, she added, “overall I think the industry is in a good position.”

Jon Hellberg is in charge of Compliance and Risk Management for Shaver Transportation Company based in Portland Oregon. Shaver is one of the first towing com-

panies to receive a COI, for their vessel Sommer S, via the Coast Guard option.

Hellberg told *MarineNews* in August, “Shaver has been very aggressive in incorporating Sub M aspects into our Safety, Quality, and Environmental (SQE) Management System over the years so the foundation was in place.” In the fall of 2017 the company started making final, detailed preparations. Hellberg and his team utilized ‘in-house checklists’ as well as the USCG's “Tug Safe” application. When the company submitted its application in June, it requested an inspection on July 20, which was granted.

Hellberg echoed the need for the same commitment to safety to stay on top of Sub M. “Getting boats into compliance is the relatively easy part. Growing a company culture of safety and risk assessment is the way ahead,” Hellberg emphasized. Early and frequent communications with the Coast Guard is critical. Hellberg said that each vessel and operation may present particulars or intricacies that don't fit neatly into the regulations. “In those instances,” he said, “companies will need to request equivalencies or alternate compliance.” The CG is not punitive, Hellberg commented, “they want to help businesses to succeed and they want Sub M to succeed.”



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



DISCUSS
DEBATE
EXPLORE
BUILD

SNAME 2018
MARITIME
CONVENTION

October 24 - 27
Providence, RI

You Gotta
GO!

**COMPLIMENTARY
EXPO-ONLY PASS**

snameconvention.com/register

CODE: ME02

The Drones are Coming

Nimble and quick, unmanned aerial vehicles have evolved into a valuable tool for marine and offshore applications.

By Jim Romeo

When a U.S. oil tanker conducts a Critical Area Inspection Plan (CAIP) as required by ABS, it is an onerous process. For example, each tank requires seven days of set up with scaffolding and staging. An ABS inspector and UDT technicians must access, and be carefully lowered into the tank with instrumentation and tools. Inspection points in far reaching places are surveyed. Carried out in the traditional fashion, it can be a difficult, dangerous, time consuming and expensive procedure.

Now, the same tanker is using drones to perform much of this function. A drone inspection can be conducted in about

a day. Not all personnel have to be lowered into the tank. There's no risk of items being dropped (and/or lost) in the tank, and the drone can easily go where it might be otherwise difficult and dangerous for humans to survey within the tank.

Drones for Maritime Applications

Drones have arrived. Using a remote-controlled unmanned aerial vehicle (UAV) or drone, infrastructure inspections may be conducted easier, better and with less



Credit: DNV GL

cost than traditional methods. Early in arrival, but loaded with possibility, drones are changing the way inspections, surveys and work gets done on ships, vessels and offshore assets around the world. The uses are many.

According to the Allianz Global Corporate & Specialty's (AGCS) Safety and Shipping Review 2018, the uses for UAVs in the global maritime industry are many. Inspection and survey are obvious, but there are many other applications. They may survey environmental pollution such as questionable discharges in and around vessels, they may be used at terminals and on board ships to monitor cargo loading. They may also be used to safeguard against pirate activity in risky geographic areas. Their research indicated that drones could help quick and urgent decision mak-

ing by a ship's crew when in a crisis management scenario. Having a drone can provide key information that would not otherwise be available. This would also include search and rescue (SAR) operations should the need arise.

Drones may also be used for oceanographic research, gathering accurate information about bodies of water and shorelines used for navigational safety purposes. Such bathymetric surveys gather and aggregate such information for the publication of nautical charts. Drones may use specially designed bathymetric sensors and forego the use of aircraft and helicopters, saving significant cost. Their use is expected to be so prevalent in the future that regulatory guidance has been drafted to assist marine owners and operators.

In 2016 ABS issued *Guidance Notes on Using Unmanned Aerial Vehicles (UAVs)*. This comprehensive set of best practices, developed through extensive marine and offshore trials and testing, was introduced as industry considers the advantages of adopting aerial drone technology.

This guidance outlines a certification framework for UAV inspection service providers. It also provides specific advice on the use of UAV for class surveys and non-class inspections. ABS as well as other classification societies clearly recognize their advantageous use during class surveys. ABS' guidance notes the UAV value for data collection and data integration which can be further leveraged to ascertain the profile of a marine asset and enable more informed decisions.

While drone use is coming of age in the maritime industry, the technology itself is also continuing to evolve. Lighter and more capable, providing value in multiple ways for maritime operators, regulators and other industry stakeholders, the new and better technology will continue to bring great dividends to decision makers in many different industrial areas.

Lighter, Nimble Data Gatherers

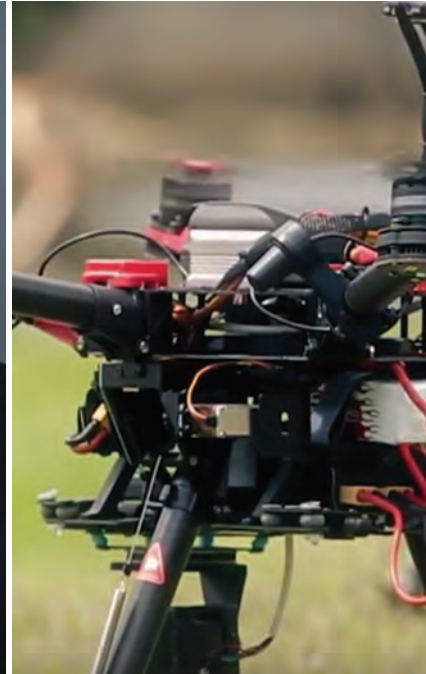
"Originally, drones were introduced as cheaper and safer alternatives for filmmakers needing aerial shots," says Frank DeMartin, Yuneec, SVP of Sales & Marketing, Ontario, California. "However, in the last five years or so, technology surrounding drone sensors and cameras have taken off to make these valuable pieces of technology safer to operate and more effective. Improved camera gimbals have improved camera stability immensely, giving pilots more flexibility and availability to capture shots now that were unthinkable a few years ago. Drones are now capable of carrying multiples payloads, too."

The payload, or weight the drone can carry in addition to its own weight, is able to incorporate more functionality and



“Aerial drones have the potential to play a major role in predictive maintenance, assessment and corrective maintenance systems and processes for marine and offshore assets. We can take a look at how they benefit structures like bridges, which are parallel to offshore platforms because they share the commonality of being a metal platform in water [and/or] salt water. In the case of bridges, different imagers including thermal cameras, sonar and lidar can be used for detecting structural problems, rust and containments.”

– Don Gilbreath, VP Systems and a UAV pilot for the Rajant Corp.



capabilities. “Advances in sensors and cameras are key as they are the enabler to more and better quality of data types,” says Efrat Fenigson, VP of Marketing for Airobotics in Petah Tikva, Israel. “We see payloads and sensors continuing to decrease in size and weight over time. Improvements in sensors will significantly shorten data processing time while delivering even more accurate results for a variety of missions.”

Fenigson adds that technology for drone sensors and cameras is constantly evolving, and the fast pace of technological innovation continues to propel the industry forward, pushing the limits on what drones do. He says this drastically reduces the time and manpower required to collect such data, allowing industry professionals to focus on analyzing the data and generating actionable insights, rather than collecting data. If drones gather the data, personnel don't have to. In a dangerous, industrial workplace, that translates into increased safety.

Foregoing Human Involvement

Steve Conboy, Chairman and General of M-Fire Suppression in Carlsbad, CA works with drones used for wildfires suppression and firefighting. He says there are important parallels to the marine environment, one being an ability to forego human intervention in a potentially dangerous environment.

“As with wildfires, marine sites are often difficult, or very dangerous, to reach,” says Conboy. “In situations where the risks are high, companies have a problem: do they send work-

ers into potentially dangerous areas or do they operate without the full capabilities they need? It's a tough call. Drones eliminate that problem. Even if a drone fails, it's a business cost. Not a human life. Drones offer fire chiefs valuable heat information to help them decide on a plan of attack to eliminate the fire advancer without putting firefighters at risk.”

“Aerial drones have the potential to play a major role in predictive maintenance, assessment and corrective maintenance systems and processes for marine and offshore assets,” says Don Gilbreath, VP Systems and a UAV pilot for the Rajant Corp. “We can take a look at how they benefit structures like bridges, which are parallel to offshore platforms because they share the commonality of being a metal platform in water [and/or] salt water. In the case of bridges, different imagers including thermal cameras, sonar and lidar can be used for detecting structural problems, rust and containments.”

Christian Tucci, President of Cinematic Aerospace – a Farmingdale, NY drone company specializing in aerial cinematography – says aerial drones are the perfect solution for the safe performance of preventative maintenance, especially for offshore equipment.

“Even rigs and wind farms on land benefit from drones,” says Tucci. “Offshore, the work is particularly dangerous for people. Inspectors have to go out in teams, dock against wind farms, climb up them, and inspect them. With a drone, a small team can take a boat out to the wind farm, launch the drone from the boat, fly the mission, see live feeds of the inspection from inside the boat's cabin,

Credit: Rajant Corp.



Credit: ABS



and even stream these feeds back to engineers on land. If the drone is equipped with a stabilized zoom lens, which many now can be there is no reason for people to climb or be up close to wind farms and oil rig equipment.

Efrat Fenigson says in addition to the preventive maintenance access and safety, they are very productive. His drones are used in the mining industry and have proven to be very efficient and productive. This same benefit can be expected in the maritime industry as well.

“Fully autonomous platforms provide a new level of safety and productivity to offshore sites while allowing them to complete missions and acquire valuable data that would have taken much longer to collect manually or with other means, says Fenigson. “Data turnaround time will also be enhanced as we continue to integrate more automation into our data processing. Automation has boosted productivity at mine sites by 25% according to a report by McKinsey & Company, and drones are one of the most versatile and cost-effective ways to integrate automation into the industry. Without the need for human pilots, they can operate safely in the most hazardous and remote sites.”

More Prevalent in The Future

“I am very hopeful about the future of drones across multiple sectors of the economy,” says Steve Conboy. “I hope the government allows us to continue to innovate, creating jobs, building the economy and opening up new methods for helping to save lives and property.”

Drones offer a disruptive technology for offshore inspection and survey that forego human involvement. Marine applications for ships and ocean platforms are only one category of many structures that stand to benefit from their use. Others like wind power, communication towers, tanks and towers will benefit as well. The many uses for drones are still to be developed and even discovered.

Stay tuned. The use of drones, like that used in the inspection process in an oil tanker, will be more prevalent in the future. They are effective, less disruptive, and a less costly alternative to supplement human surveys. Their multiple uses are a key advantage. One drone can perform many different functions – inside a tank, but also outside of it. They can be carried on board, used by visiting inspectors, or used at the pier.

“Geometric gains in processing power combined with nearly unimaginable data collection capabilities will happen swiftly,” says Tod Northman a Partner with the law firm of Tucker Ellis in Cleveland, Ohio. “We are only beginning to see how the power of UAV systems lies in their information-processing more than their whizzy flight moves.” Indeed, for the maritime and offshore industry – today and tomorrow – drones are a very big deal.



Jim Romeo is a marine engineer and freelance writer based in Chesapeake, VA.



ABS software supports designs across most vessel sectors. This pilot project focused on tug and barge designs, producing promising results.

Edited by Joseph Keefe

Jensen Maritime, the naval architecture and marine engineering arm of Crowley Maritime Corp, and ABS have completed a precedent-setting pilot project using three-dimensional computer-aided design (CAD) models to support plan reviews for class approval.

In what is believed to be an industry first, the innovative pilot was not proprietary to specific brands of CAD software, allowing designers to use the versions with which they are most familiar, or those that are best suited to the design project.

Saving Time and Money

In eliminating the need to create 2D drawings to submit for the class design-review process, the initiative is expected to achieve a time savings of as much as 25%, and reduce the designer's costs of approval.

"Being able to send our 3D models directly to ABS for engineering review saves us time and resources that are currently used to develop 2D drawings," said Crowley Maritime Vice President of Engineering Services, Jay Edgar. "ABS's CAD-agnostic approach is an important factor in this process because it allows us to use the modeling pro-

gram that best fits our needs for the project."

The ABS software would support designs across most vessel sectors, but the pilot focused on tug and barge designs, a sector where Crowley and Jensen Maritime have considerable industry recognition and experience. It used a detailed 3D-model environment that seamlessly integrated with the ABS classification processes.

Unique to the ABS-engineered solution is the ability to upload 3D models that are developed by using all major CAD modeling software – including widely used brands such as Aveva/Tribon, Intergraph, Autodesk/Autocad and Rhino – expanding the options for designers and owners.

The Future: 3D Modeling

Three-dimensional modeling is increasingly relied upon by the maritime industry's design houses and builders for planning initial structural and machinery systems, with more than half of respondents confirming adoption in a recent ABS survey.

"Using 3D software models is the logical next step for ABS as we expand our digital footprint and continually enhance the class experience," ABS Vice President for Tech-



“We expect significant time and cost savings for designers and shipyards if 3D CAD models are adopted during the construction phase. However, there will be challenges, because shipyards may need to modify some workflows. It may also impact a range of stakeholders, including crew on board vessels and Flag States.”

– Dan Cronin, ABS Vice-President Class Standards and Software



“Until now, only two-dimensional drawings have offered the fidelity of detail required to support ABS classification. But advances in technology and 3D modeling techniques now enable one end-to-end project model, backed by an extremely detailed data set, for plan approval.”

– Gareth Burton,
ABS Vice President for Technology

nology, Gareth Burton said in announcing the pilot project with Jensen Maritime. “Until now, only two-dimensional drawings have offered the fidelity of detail required to support ABS classification. But advances in technology and 3D modeling techniques now enable one end-to-end project model, backed by an extremely detailed data set, for plan approval.”

The digital revolution is beginning to have a major impact on how class is delivering its primary services such as plan approval. While the overall objective remains the same – to help maintain life, property and the natural environment – how those services are delivered is being transformed throughout the lifecycle of the asset.

Class, in partnership with industry and academia, is using the digital revolution to make its processes less intrusive to stakeholders’ day-to-day operations; using 3D modeling for plan-review is just one example.

“The time and resources we don’t spend creating 2D models for review can be used on other strategic design activities, so using 3D models that are already an integral part of our design process to meet class requirements is clearly a benefit to us and, ultimately, our clients,” said

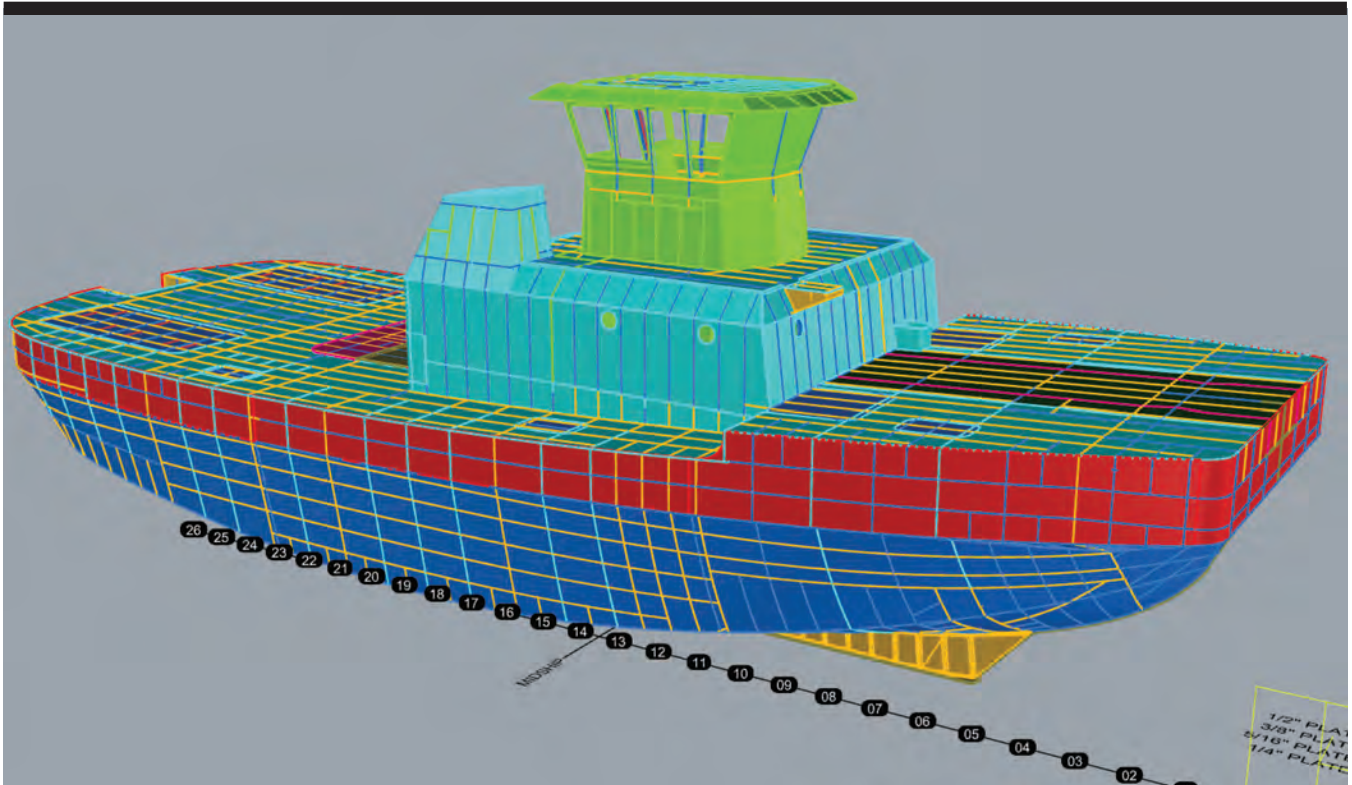
Edgar. “It is an example of how thoughtful application in technology can be used to streamline the design process.”

While using 3D CAD models to support class’s plan-review process is not entirely new, working with design houses and shipowners to create a process that supports many different types of CAD software is unique.

Traditionally, maritime partnerships have been formed with the CAD and/or software companies, compelling designers to work in that software environment. This has created the interoperability issues that are common in the hyper-competitive software world, where protection of intellectual property can restrict cooperation.

Agnostic, Interoperable – and Cutting Edge

Because designers and shipyards develop their 3D models using a variety of CAD software, ABS chose the agnostic approach to accommodate as many of the industry’s established tools and workflows as possible. “It was essential to the success of the review process because it provides clients with the confidence that their models can be accepted and reviewed by us,” Dan Cronin, ABS Vice-President Class Standards and Software, said.



The software-agnostic goal was built into the work scope for the Crowley/Jensen pilot. It included the identification of 3D model formats that Jensen Maritime wanted to submit for ABS review, and the determination of the 3D models that were to be submitted for testing. The program was tested with hull scantling models. As the focus was on the plan-review workflow, a full engineering plan review of the models was not conducted for this part of the pilot.

ABS verified the design, conducted spot checks of the details required for plan review to ensure that the models could be fully reviewed. Other details of the work scope included:

- *Collection and preparation of documentation, data, and 3D model required for the test workflow, which addressed:*
 - **Stamping**
 - **Commenting and Amendments**
 - **Software compatibility**
 - **Archiving**
- *Testing of the pilot-approval workflow with the 3D model and accompanying documentation*
- *Report and review test results*
- *Development of best practices for the 3D model-based plan approval process based on the lessons learned from the pilot*

A key obstacle that had to be overcome was the interoperability of the third-party platforms, how to develop a

process so that data can be shared across different CAD platforms. To support an efficient design-review process, the designer creates sectional views, which allow ABS engineers to more easily navigate the model. When used in tandem with a file-transfer protocol, engineers and designers communicate comments and annotations via 3D PDFs, assuring the secure transfer of data.

Next Steps

As the next logical step for this technology, ABS is interested in piloting it for use in class surveys, an exercise that would build understanding about how designers and shipyards could best use 3D CAD models during vessel-construction phases.

“We expect significant time and cost savings for designers and shipyards if 3D CAD models are adopted during the construction phase,” said Cronin. “However, there will be challenges, because shipyards may need to modify some workflows. It may also impact a range of stakeholders, including crew on board vessels and Flag States.”

ABS is already talking to Flag States about how they may be able to accommodate 3D CAD models, particularly with regard to use in the field. They have expressed interest in 3D model plan review, even though use in the field is limited at present. Beyond this, ABS is also exploring ways to use 3D CAD models to reduce non-value added modeling time.

Dynamically Positioned

FOR THE FUTURE

OSVDPA accredits Texas A&M Maritime Academy to provide dynamic positioning (DP) training to its cadets.

By Joseph Keefe

In early September, the Offshore Service Vessel Dynamic Positioning Authority (OSVDPA) announced that the Texas A&M Maritime Academy at Texas A&M University at Galveston was now the first maritime academy in the nation accredited to provide OSVDPA courses to its cadets. For any U.S. maritime academy, most if not all of them traditionally focused on sending out graduates ready for blue water, deep water service, this represents a sea change in training. On the other hand, what better place to start than the U.S. academy closest in proximity to the heart of the domestic offshore energy industry, and indeed, the heaviest concentration of DP equipped support vessels?

In announcing the accreditation, OSVDPA Executive Director, Aaron Smith said, “Going into the accreditation process we obviously knew of A&M’s reputation as a great maritime training institution, but they surpassed even those lofty expectations. We were extremely impressed with A&M’s instructors, curriculum and equipment. Giving cadets access to top-notch training early in their career will pay great dividends toward the safety of our industry.

“Our partnership with OSVDPA is the result of years

of putting all the pieces into place,” said Captain Augusta Roth, department head of Marine Transportation at the Texas A&M Maritime Academy. “The right equipment, the right facilities and the right people have all come together to make this happen.”

The Texas A&M Maritime Academy is one of seven maritime academies in the United States – six state-run and one federally operated. All of these schools in the past have focused much of their training resources on producing unlimited tonnage, blue water mariners. That’s changing, to a large extent a function of the fact that the U.S. domestic blue water fleet has dwindled to record low numbers. On the other hand, more than 98 percent of the nation’s merchant hulls can be classified as brown water. An increasing number of those also employ dynamic positioning as an important part of their equipment mix.

DEFINING DP

Dynamic positioning (DP) is a computer-controlled system to automatically maintain a ship’s position and heading. Information from the ship’s propellers and thrusters



“We wanted to be proactive in addressing the needs of companies to fill the personnel void created by the downturn. We were pleased to work with industry to figure out what those needs were, and design programs to meet them. OSVDPA accreditation became the cornerstone of that effort.”

**– Captain Kate Fossati,
DP Instructor at the Texas Maritime Academy**

and data from sensors for wind and motion are combined with gyrocompass data to give a computer the vessel’s position. This information allows the computer to calculate the required steering angle and thruster output to match the ocean’s current conditions. Some, but not all, vessels it is used aboard include: offshore supply vessels, drillships, semi-submersibles, turbine installation vessels, cruise ships, cable layers, dredges, shuttle tankers, military vessels, heavy lift vessels, FPSOs, FLNGs, dive support vessels and wind farm servicing ships.

For cadets to receive an OSVDPA DPO (DP Operator) Certificate they must successfully complete two classroom courses, the first of which covers the theoretical knowledge behind DP operations and the second offers hands on DP experience via the utilization of DP simulators.

Additionally, the OSVDPA requires mariners to pass a series of assessments as they progress through the phases of the OSVDPA DPO Certification. These assessments range from a multiple-choice style test following Phase 1, to practical assessments following Phases 3, 4 and 5.

To achieve accreditation, the Texas A&M Maritime Academy was required to submit a package of forms describing its operation, curriculum, facilities, simulators and instructors. Once submitted, OSVDPA staff and an independent OSVDPA-Approved Auditor conducted intensive document review and a Site Visit to ensure that the facility and its simulators met OSVDPA standards.

They did. Beyond this, OSVDPA conducted assessments of Captain Kate Fossati – one of two Texas A&M DP instructors – to benchmark her knowledge of the DP theory, her practical DP operational abilities, as well as her ability to use a DP simulator as an instructional tool.

WHY TEXAS – WHY NOW?

As the first U.S. Maritime Academy credentialed to teach accredited DP courses, the DP certification is an important step, especially when considering the U.S. training academies – who are all slowly integrating a workboat curriculum into their offerings – have primarily catered to the blue water side of the equation for so long.

Admiral Michael Rodriguez, Superintendent of Texas A&M Maritime Academy, explained the move, saying, “The geographical location of Texas A&M Maritime Academy in Galveston, Texas, makes it the go to academy for well-trained third mates to work in the brown water, oil patch, and coastal towing industries. Students who are considering a career in the oil industry, especially OSVs and drilling rigs, will look at the DP training offered here and understand the importance relative to getting a job in the industry and being successful.

At a time when the U.S. Maritime Administration has made it clear that they need blue water mariners – indeed, Marad Chief Buzby wants ROI for his training ship program – the U.S. merchant fleet today consists of some 40,000

TRAINING



hulls; 98% of which can be described as brown water and/or workboat-sized vessels. A&M's Roth acknowledges the many mission needs of industry, but says flatly, "We are training for tomorrow. We are situated in the bull's-eye of the inland and oil patch industries and feel this puts us in a unique position to fill the future needs of the workboat industry. This sector of the industry is recognizing the part we can play in their future operational success. Accordingly, we are aggressively modifying our curriculum, which includes OSVDPA accreditation, to address industry needs."

Similarly, the cadets also 'get it.' And, while the DP curriculum is an elective course, demand is growing. As *MarineNews* went to press, there was a waiting list, and it is getting longer. Hence, says Roth, more sections of the course in the future may be considered.

Supporting the nascent program in Galveston, a total of six Class C Simulators with a master station, were

www.marinelink.com



- DECK MACHINERY
- GYPSY WINCHES
- UNREP/CONREP
- CAPSTANS
- HOISTS

SLM SUPERIOR LIDGERWOOD MUNDY

Superior-Lidgerwood-Mundy, Corp.
Ph: (715)394-4444
Fax: (715)394-6199
sales@lidgerwood.com
<http://www.lidgerwood.com>

- Coast Guard
- U.S.A.C.E.
- Commercial
- Navy

Worldwide Leader in Custom Deck Machinery and System Integration



Formed in 1887, Schoellhorn-Albrecht Machine Co., Inc. is the leading designer and manufacturer of marine deck machinery, deck fittings and vessel access systems.

Products include Capstans, Anchor Windlasses, Winches, Panama Chocks, Cleats, Roller Fairleads, Double Bitts, Accommodation Ladders and Gangways, Strut Castings, Stern Tube Castings and other special fabrications.

The company designs and manufactures products to ABS; NVR, ISO and other industry specifications. Schoellhorn-Albrecht is certified and registered to ISO 9001:2015 quality system.

Schoellhorn-Albrecht Machine Co., Inc.
1141 Reco Ave.
St. Louis, MO 63126

T: 314-965-3339
F: 314-965-3341
sales@schoellhorn-albrecht.com
www.schoellhorn-albrecht.com

“The geographical location of Texas A&M Maritime Academy in Galveston, Texas, makes it the go to academy for well-trained third mates to work in the brown water, oil patch, and coastal towing industries.”

– Admiral Michael Rodriguez,
Superintendent of Texas A&M
Maritime Academy



purchased from Kongsberg. And, that’s important because Kongsberg has positioned itself as an industry leader in this technology, with countless installations worldwide on working vessels, supported by dozens of training centers employing Kongsberg equipment.

Armed with the new training opportunities, graduating cadets will hit the ground running with not only a third mate unlimited license, but also their OSVDPA Class C Permit, and be sixty sea days and one assessment away from a full DPO certificate.

The OSVDPA training regimen includes four phases: classroom, sea time, classroom, and sea time, with assessments at each step. Students are now taking the first phase of classroom instruction at TAMMA. After completion of first phase, they may go out on a commercial DP vessel for the second phase of sea time. Upon completion of the final two phases, they are eligible to apply for an OSVDPA Class C Permit, which is the OSVDPA term for a Junior DPO.

The new focus on DP comes at a critical time. The seismic downturn in the offshore oil industry beached many mariners, created a vast void in well trained personnel and now presents a problem as the offshore oil industry stirs to life. Knowing that the slow recovery is also creating job opportunities, Texas A&M and OSVDPA wanted to be in position to satisfy industry demands. Captain Kate Fossati told *MarineNews*, “We recognized this and wanted to be proactive in addressing the needs of companies to fill the personnel void created by the downturn. We were pleased to work with industry to figure out what those needs were, and design programs to meet them. OSVDPA accreditation became the cornerstone of that effort.”

A LOGICAL FIRST STEP

Texas A&M could have partnered with other accreditation bodies, but in the end, they turned to the Gulf Coast-based OSVDPA. The mission of the OSVDPA is to improve the safety of dynamic positioning operations by providing a pathway to training and certification for all of those who use dynamic positioning. The availability of OSVDPA to locally and quickly address training issues or concerns relative to that certification was a key component of the school’s decision to move forward with them.

Admiral Rodriguez added, “Their number one concern is improving safe operations in the Gulf of Mexico region through a rigorous DP training program. That matches very well with our mission.”

For her part, Chief Mate Kate Fossati, assistant Marine Transportation professor at the Texas A&M Maritime Academy and the instructor approved to teach the OSVDPA courses, was also excited about the accreditation. “As an alumna of Texas A&M who sailed as a DPO, I know what having that certificate does to a cadet’s job prospects. I am very proud that our cadets will be able to start the certification process while they are here, something that they used to have to wait until graduation and pay out-of-pocket to do.”

Rodriguez summed up the path ahead by declaring, “I am so proud of Captain Roth and Professor Fossati. They got the demand signal from our industry partners and made this happen. It’s a win for all ... our cadets, the academy, OSVDPA and the entire maritime industry.”

ABB's Next Generation DP system *Your marine pilot of the future, here today.*

By Joseph Keefe

At this year's SMM trade event in Hamburg, Germany, industrial digital technology specialist ABB introduced what could be the future of dynamic positioning, not just for traditional DP users, but also for the full spectrum of navigation tasks. ABB Ability Marine Pilot Control is a next-generation dynamic positioning (DP) system that simplifies ship maneuvering with an intuitive touch screen-based user interface and enables safer, more efficient ship operations.

With its user-centric design, ABB Ability Marine Pilot Control reduces the workload on automating navigational tasks and allows bridge officers to focus holistically on the overall control and positioning of the ship. The system integrates seamlessly with existing onboard equipment, and ensures ease of installation and maintenance. In other words, and as deep draft blue water shipping firms begin to eye futuristic autonomous solutions, ABB aims to be a big part of that push, when it comes.

Benefits

The User-centric design helps increase the overall safety of the operation, as the crew is able to maintain full situational awareness, rather than having to focus on changing control modes. The operator can switch to joystick control for maneuvering the vessel at any speed and all the way to docking.

ABB Ability Marine Pilot Control employs algorithms that calculate the optimal way of executing a command for controlling the vessel in any operational situation.

Seamless integration with existing onboard equipment and ease of installation and maintenance is at the heart

of the new system. Together with the advanced situational awareness provided by ABB Ability Marine Pilot Vision, the new DP system creates an intuitive operating environment with the dedicated purpose of operating the ship in a safe and efficient manner.

Stepping Stone to Autonomous Shipping

The ABB Ability Marine Pilot Control is a pioneering technology that is already available today and that will act as a stepping stone into the future of autonomous shipping. Autonomous shipping requires a DP system that can replace traditional solutions designed for disconnected operations.

Today, ABB touts itself as Electric, Digital and indeed 'Connected.' The new Dynamic Positioning system is all of that, but this is certainly not ABB's first rodeo in this exciting space. Mikko Lepistö, Senior Vice President Digital Solutions at ABB Marine & Ports, explained, "We have been in the DP business in the past, but ABB Ability Marine Pilot Control provides a novel and comprehensive ship operation system that is unparalleled at the moment in the industry."

At the same time, ABB cautions that autonomous does not mean unmanned. The ABB Ability Marine Pilot Control can be connected to the ABB Ability Collaborative Operations Center infrastructure, which monitors the performance of ABB technology on board and remotely connects operators with

ABB experts. The Captain and his staff, now equipped with these high-tech tools, must be supported by the tech OEM, says Lepistö.

"The journey started as recently as 2012, when we first discussed a 'global ticketing system' of shared information. And it was only in



2015 that ‘Global Technical Support 24H’ delivered a common platform for data available to ABB offices and ships at sea,” he said, adding, “By then, our ABB Ability Collaborative Operations Center in Norway was up and running, we had opened a second center in Singapore and we were connected to 600 vessels. Today, we have seven Collaborative Centers on locations around the world and we are increasingly connecting to more ships; by 2020, we expect to pass the 3,000-ship milestone.”

Available Now

Also in Hamburg, ABB announced that the system is being delivered to a Ritz Carlton yacht in the near future. The 190 meter, 298 passenger vessel marks Ritz Carlton’s entry into luxury yachting and cruises – bringing the award-winning luxury hotel brand’s service and timeless style to sea. That it will also employ ABB’s futuristic system promises a unique experience for its mariners, as well.

For example, the ABB Ability Marine Pilot Control can carry out berthing operations seamlessly across all phases of ship operations. By not needing to have a period of zero speed, the bridge team will be able to minimize the energy consumption of a ship by not having to stop and start during maneuvering operations. Simplifying the interface to the ship’s propulsion and thrusters permits significantly more effort to be placed on situational awareness as opposed to manual calculation of thrust vectors.

In a world where IMO’s 2020 deadline is looming large in the proverbial porthole, that also means a smaller environmental footprint for the high end yacht. That’s because faster departures will enable lower sea going speeds which will provide a direct saving for operators in both fuel and emissions.

And, for those skeptics who doubt the efficacy of this high tech system, ABB already has ‘AiP’ from Lloyds Register, and says Lepistö, they are in regular discussions with all IACS societies at multiple levels. He adds, “The AiP provides a level of assurance that there are no conceptual issues which should prevent the design gaining the necessary approvals.”

Beyond this, the system provides ‘situational awareness with modular functionality’ and is fully integrated with propulsion control systems and other ABB products. Both systems; the ABB Ability Marine Pilot Vision and ABB Ability Marine Pilot Control are agnostic in connectivity.

Sea Change for Dynamic Positioning

This DP mode – appealing in theory to a much larger swath of marine vessels, and indeed the traditional blue water tonnage that DP has not heretofore touched upon –

also shows that a much wider group of mariners will need to get DP training. At the lower levels of DP operation, this would be at the operators’ requirements according to their Safety Management System & SOLAS compliance, and ABB is further looking at delivering this in its own training facilities. For higher level DP vessels, says Lepistö, requirements for DPO training will remain as they exist today.

Nevertheless, ABB has higher aspirations for their newest DP offering. At SMM, ABB suggested that someday, large blue water deep draft vessels might be berthed almost autonomously using this DP system. But, Lepistö cautions that autonomous docking using systems similar to ABB Ability Marine Pilot Control for small vessels are the priority for the short term in order to gain confidence in systems and identifying shortfalls. “We do believe that large vessels will benefit from this in the mid term with the caveat that we must support harbor pilots in their understanding of these systems.”

DP operations intended to support complex docking operations will need to go beyond today’s offerings. To that end, ABB’s Ability Marine Pilot Control is more than traditional DP. With the combination of MPC (Model Predictive Controller) and a nonlinear Observer, ABB is utilizing a control scheme that gives a predicted future of what will happen to the vessel. The control system knows where the vessel will be when the system is given a command. Lepistö explains further, “We do not need to wait for the vessel to react on the command and then measure where we are. Given this and add on the vessel control from 0 to full speed without any change of control system together with a fully touch based operator station, the ABB Marine Ability Pilot Control is paving the way forward for a new area of DP and maneuvering systems.”

Indeed, the new ABB new DP Control is intended for use across the entire maneuvering spectrum – 0 to 22 KT – whether at sea, maneuvering in port or berthing / unberthing. The approach, a nod to the coming autonomous class of vessels, can, insists ABB’s Lepistö, achieve immediate value on the oceans today. “It definitely provides value for current vessels but is a prerequisite for development of vessels that operate autonomously in the future,” he said. Hence, if autonomous shipping is just around the corner, ABB will likely be on board when that vessel leaves the berth.



Mikko Lepistö, Senior Vice President Digital Solutions



THE VIRGINIA PILOT ASSOCIATION'S M/V HAMPTON ROADS

The Virginia-based pilots say that this Gladding Hearn-built workhorse checks all the boxes: safety, stability, reliability, service support, speed and efficiency.

By Eric Haun

This is not your grandfather's pilot boat. The 55-foot Chesapeake class MKII launch built by Gladding-Hearn Shipbuilding was delivered to its station in Virginia Beach this summer, equipped with a range of state-of-the-art technologies for improved safety, stability, reliability and efficiency.

Chief among *Hampton Roads'* high-tech features is its Volvo Penta propulsion system. The vessel is powered by twin 13-liter 900 hp D13-700, EPA Tier 3-certified diesel engines, each connected to an IPS-3 propulsion pod with integrated underwater exhaust, as well as Volvo Penta's EPS electronic steering and control system. The IPS uses highly-efficient steerable pod drives with dual counter-rotating forward-facing propellers that pull the boat through "clean" water rather than push, said Jens Bering, VP, marine sales, Volvo Penta of the Americas. The setup provides a number of operational enhancements, including 20 percent faster speeds (top speed over 32 knots) and 30 percent lower fuel consumption compared to a traditional inboard shaft system, the manufacturer said. It also slashes onboard noise and vibration levels by half.

The all-aluminum seagoing vessel features a deep-V hull designed by C. Raymond Hunt & Associates. Winn Wil-

lard, president of C. Raymond Hunt & Associates, said the hull shape is the most advanced and practical that can be put on a fast boat today. Gladding-Hearn introduced the Chesapeake class pilot boat in 2003. Peter Duclos, president of the Somerset, Mass. shipbuilder, said key design changes in the Chesapeake class MKII launch include positioning the wheelhouse aft of amidships to improve comfort and provide for a larger foredeck. With the pods close-coupled to the engines, the engine room is located well aft of the wheelhouse with easy access to machinery through a deck hatch.

Further comfort and greater stabilization are delivered by a transom-mounted interceptor system from Humphree USA. The electric-powered interceptors deploy retractable blades that adjust automatically to create lift that counteracts the vessel's roll and pitch motions. According to Sean Berrie, CEO of Humphree USA, the system optimizes the attitude of the boat underway, helps to save fuel, takes load off of other systems, and provides better control and safety while maneuvering. In other words, the *Hampton Roads*, built by perhaps the most recognizable name in the pilot boat industry, has all the bells and whistles, ready for any mission that might come next. Peter Duclos wouldn't have it any other way.

The Chesapeake class *Hampton Roads* ... at a glance

LOA: 56 feet	Main engines : (2) Volvo Penta D13-700, EPA Tier 3	Hull Type: Deep-V monohull
Beam: 17.2 feet	Genset: 12 kW Northern Lights/Alaska Diesel, Tier 3	Keel Laid: April 7, 2017
Depth: 9.1	Radar: (2) Furuno TZT-14" MFD display w/chart plotter	Delivered: June 26, 2018
Draft: 4.11 feet	Potable water: 25 U.S. gallons	Fuel: 800 U.S. gallons
Compass: 5" Richie	Crew: Captain & 1 deckhand	Speed (loaded): 32+ knots

Conrad Industries Announces Delivery of North America's First LNG Bunker Barge



Conrad Industries announced the successful completion and delivery of the Clean Jacksonville, the first LNG bunker barge built in North America. The Clean Jacksonville was constructed in Orange, TX, at Conrad Orange Shipyard, a subsidiary of Conrad Industries, and the safe and successful gas trial execution took place in Port Fourchon, LA. The vessel will enter service for TOTE Maritime Puerto Rico in the Port of Jacksonville, FL, where the vessel will bunker two Marlin Class containerships operating on LNG fuel between Jacksonville and San Juan, Puerto Rico.

Young Brothers Accepts Delivery of First of Four Ocean-Going Tugs

The first of four new ocean-going tugs designed by Damen USA, and built by Louisiana-based Conrad Shipyard, has been delivered to Young Brothers – an independent subsidiary of Foss Maritime. The Kapena Jack Young completed sea trials in Fourchon, Louisiana and was delivered on August 22, 2018. The new twin-screw tugs are 123-foot in length with a 36.5-foot beam and powered by G.E. 8L250 engines rated at 6,000 horsepower. Designed for high stability and maneuverability, the tug has a maximum bollard pull in excess of 83 metric tons and a top speed of 12.5 knots. In addition, the tugs are EPA Tier 4 compliant - the first tugs in Hawaiian waters to meet the new requirements, and substantially reduce emissions. Conrad will construct and deliver three more tugs, identical to the Kapena Jack Young, over the next 12 months.



VT Halter to Build Bouchard ATB Tug

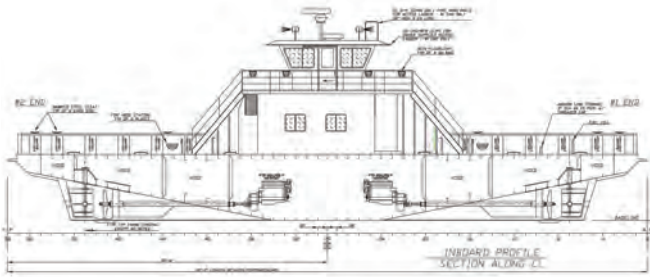


VT Halter Marine has announced a new contract to build an Articulated Tug Barge (ATB) tug with an option

for a second vessel for Bouchard Transportation Co. The ABS-classed ATB tug M/V Evening Stroll is a sister vessel to the M/V Denise A. Bouchard (pictured above), M/V Evening Star and M/V Evening Breeze. The M/V Evening Breeze is currently under construction at VT Halter Marine's Pascagoula shipyard and is scheduled for delivery during the first quarter of 2019. The M/V Evening Stroll is a 4,000hp twin screw ATB tug classed by ABS as Maltese Cross, A1 Ocean Towing, and equipped with an Intercon Coupler System. This vessel will enter into Bouchard's fleet service in New York, N.Y to transport liquid petroleum products throughout the Jones Act Market.

LOA: 112 feet	Coupler System: Intercon	Regulatory: SubM
Beam: 35 feet	Draft: 17 feet	Service: Coastwise

Blount to Build South Ferry Vessel

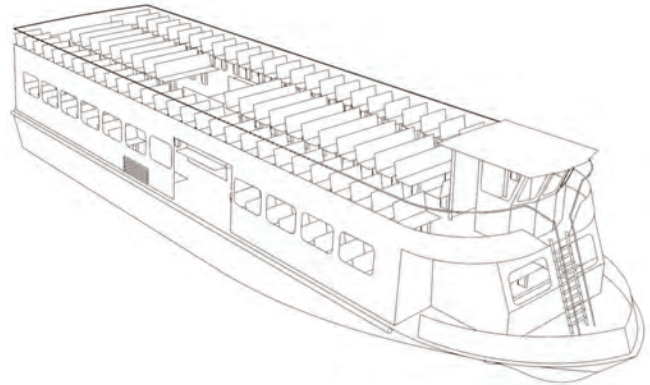


Blount Boats has signed a contract with South Ferry Company to construct a steel passenger/vehicle ferry for Shelter Island, NY. The double-ended ferry will be named Southern Cross. The Clark family, owners of South Ferry Company have been providing transportation between Shelter Island, New York and North Haven, New York on Long Island's southern tip since the 1700's. The Southern Cross will be a sistership to two other Blount built ferries; the Sunrise and the Southside, delivered in 2009.

LOA: 01 feet	Propulsion: CAT C-18 Tier III/IMO II / 470 HP & 1800 RPM	Deck Load Capacity: 260,000 pounds
Beam: 40 feet	Gears: Twin Disc MG-516 remote mount	Designer: DeJong & LeBet

BHGI to Design New Sayville Ferry

Bristol Harbor Group, Inc. (BHGI) was recently contracted by Sayville Ferry Service to provide the design of an aluminum monohull high speed ferry for 400 passengers and cargo providing service from Sayville to Fire Island. The new design will be based on an existing parent vessel. The vessel will be designed to comply with 46 CFR Subchapter K. The project includes both preliminary and detail design packages for all aspects of naval architecture and marine engineering. There is particular emphasis on modernization of the propulsion plant, improvements for passenger embarkation/debarkation and cargo handling, hydrodynamic enhancements, and vibration reduction.



EBDG Designs Landing Craft for San Juan Islands



EBDG partnered with Latitude Marine Services (LMS) to update the design of a current landing craft operated by San Juan Ferry & Barge, designed by EBDG and built by LMS. EBDG provided design and production support services, and conducted a post-construction stability test for the new vessel, the M/V NORDLAND II. The M/V NORDLAND II entered service at the beginning of the year, providing freight transportation throughout the San Juan Islands. The design revision incorporated a midbody hull addition and refined pilot house design to increase cargo space on the deck and make it easier to load large vehicles. The vessel's unique bow ramp allows for vehicles and heavy lift equipment to drive onto the deck from any beach access.

Over the last 30 years, Elliott Bay Design Group (EBDG) has been involved in numerous waterfront projects including the design of ferries, barges, tugs and more. Recently,

LOA: 87 feet – 10 inches	Beam: 25 feet	Crane Capacity: 4,500 pounds
Length on Deck: 74 feet	Capacity: 185,000 pounds	Operator: San Juan Ferry & Barge

PEOPLE & COMPANY NEWS



David Welch,
former Stone Energy CEO
and past NOIA Chairman

David Hinson Welch, former Chairman, President and CEO of Stone Energy, passed away on August 14, 2018. Prior to joining Stone in 2004, David held executive positions with Amoco and later BP, including Director of Strategic Planning, President of the Amoco Gulf Group, Sr. VP of BP North America and President of BP Alaska Canada Gas. He also spent 5 years with the US Geological Survey and one as an adjunct professor at Tulane University in the graduate school. David got his Doctorate in Chemical Engineering and Finance at Tulane University, and Post Doctorate Business degree at Harvard University. He testified on multiple occasions before the US Senate on energy related issues. David also served on the Board of Directors of Iberia Bank Corp., Chairman of the Board of Amicus Oil and Gas, past Chairman of the Offshore Energy Center, trustee of the National Conservancy, and past President of the National Ocean Industries Association (NOIA).



Ballard



Beale



Kumar & Bolton



Martin



Vuong

USMMA names Academic Dean and Provost

The U.S. Merchant Marine Academy at Kings Point (USMMA) announced that **John R. Ballard, Ph.D.**, has been named the new Academic Dean and Provost at the federal service academy. Ballard will serve as the chief academic officer and principal advisor to the Superintendent, as well as co-chairing the educational priority working group for the recently released USMMA strategic plan. Ballard is a published author and a graduate of the U.S. Naval Academy, California State University, Dominguez Hills and The Catholic University of America (Ph.D.).

HII Appoints Beale as VP Trades at Newport News Shipbuilding

Huntington Ingalls Industries announced the promotion of **Xavier Beale** to vice president of trades at the company's Newport News Shipbuilding division. Beale, who most recently served as director of human resources operations, will be responsible for production trades, trades management, trades administration and The Apprentice School. Beale began his career at Newport News in 1991 as a pipefitter. Beale earned a master's degree in human resources from Troy University and bachelor's degree in governmental administration from Christopher Newport University.

Change of Command for CMA's T/S Golden Bear

After 10 years at the helm, **Harry Bolton** has handed over command

of the Training Ship Golden Bear Wednesday at California State University Maritime Academy. Bolton, a 1978 graduate of the Academy, returned to Cal Maritime on May 1, 2008 after a 30-year career with American Maritime Officers. Dr. **Shashi Kumar**, the Maritime Administration's deputy associate administrator and national coordinator for maritime education and training bestowed Bolton with the rank of Commodore. Veteran faculty member Captain **Sam Pecota** is the new master of the Golden Bear.

MarineCFO's Martin Earns SubM Auditor Status

MarineCFO's **Laura Martin**, VP of Sales & Client Relations, has earned her certification as a SubChapter M and ISM Lead Auditor. Through a week-long course led by Decatur Marine, Laura got an in-depth review of Subchapter M and ISM regulations, and full orientation into what the US Coast Guard and ISO are expecting when a vessel is audited to meet these standards.

Port of Oakland appoints Principal Engineer

The Port of Oakland has promoted **Thanh Vuong** to Principal Engineer in the Maritime Project Design and Delivery Department. Vuong will oversee dredging and crane-related work as well as construction, maintenance and compliance activities. Vuong has worked at the Port for eight years, previously holding the position of Supervising Engineer. Prior to the Port, he worked for Caltrans. He re-

PEOPLE & COMPANY NEWS



DeLuca



Falconetti



Doorley



Leheij & Kaul



Kuryla



Bergeron

ceived his B.S. in Civil Engineering at the University of California, Davis.

Duluth Seaway Port Authority names Executive Director

A woman will be at the helm of the Duluth Seaway Port Authority (DSPA) for the first time in the organization's 60-plus year history. The DSPA board appointed **Deb DeLuca** as executive director. DeLuca has served as the Port Authority's government and environmental affairs director since 2014. A graduate of UW-Madison, DeLuca earned a Bachelor of Science degree in molecular biology and a master's in land resources from the UW Institute for Environmental Studies.

JAXPORT Names Falconetti as Chair

The JAXPORT Board of Directors recently selected new officers and elected **John Falconetti** as Chairman. Falconetti is Chairman and CEO of Jacksonville-based print services provider Drummond. He previously served as JAXPORT Chairman from 2014 through 2015 and has also served in leadership positions for numerous high-level state and local boards. The unpaid, appointed seven-member Board of Directors provides policy guidance to JAXPORT, which supports more than 130,000 jobs and generates \$27 billion in economic activity annually.

Doorley Named CFO of Seacube Container Leasing

SeaCube Container Leasing announced the promotion of **David F.**

Doorley to the position of Chief Financial Officer. Previously, Doorley served as SeaCube's Treasurer and VP of Investor Relations. A long time SeaCube employee, David started as a Cash Manager, with the organization in 2000. He holds a BS Business Administration/Finance from Mercy College and is a member of the Association of Financial Professionals.

Schottel Appoints Two for C-Suite Roles

Schottel announced the appointment of **Stefan Kaul** as Chief Executive Officer (CEO) & President Industrial Operations. Kaul joined the company in 1989 and has held several key positions in research, hydrodynamics and the marine propulsion business. Separately, **Hans Laheij** has been appointed Deputy CEO & President Marine. Laheij joined the company in 2016 and has since then held the position of VP Sales & Marketing. Prior to that, he worked in commercial project management roles at Lips Propulsion and Wärtsilä Marine Solutions.

Kuryla Elected Chairman of Florida Ports Council

PortMiami Director and CEO **Juan Kuryla** has been elected chairman of the Florida Ports Council. Port of Palm Beach Executive Director **Manuel Almira** was elected as vice chairman and Port Panama City Executive Director **Wayne Stubbs** was elected secretary/treasurer. All positions serve one-year terms. The Florida Ports

Council is the professional association of Florida's 14 public seaports, providing advocacy, leadership and research on seaport-related issues.

Bergeron to receive 2018 C. Alvin Bertel Award

The World Trade Center of New Orleans announced **William T. "Bill" Bergeron**, CEO of Bergeron Resources, as the recipient of the 2018 C. Alvin Bertel Award. The award, established in 1967, is presented annually to an individual who has made significant contributions to the Louisiana port community. Over 50 years, Bergeron grew his business into an international marine manufacturing and service firm with up to 1,400 employees, earned the largest reported inland river barge contract in U.S. maritime history at \$58 million, with shipyards and services in Louisiana, Mississippi, Alabama, and Venezuela.

Bruno, Dell and Fitzgerald Named 2018 AOTOS Recipients

The United Seamen's Service 2018 Admiral of the Ocean Sea Awards (AOTOS) will be presented to **Salvador Bruno**, President and CEO of Hapag-Lloyd USA; **Paul Doell**, National President of American Maritime Officers and **Raymond F. Fitzgerald**, Chairman of the ARC Group. The award will be presented at the 49th annual gala in New York City in November 2018. During this event, American seafarers will receive recognition

PEOPLE & COMPANY NEWS



Admiral of the Ocean Sea Awards

Bruno

Doell

Fitzgerald



Cudós



Wilson



Schleicher



Fanberg



Buzby



Liebherr USA Headquarters

for acts of bravery and heroism at sea. Proceeds from the AOTOS event benefit USS community services for seafarers of all nations, and the U.S. government and military.

Cudós named MD of SENER group

Engineering and technology group SENER has appointed Jorge Sendagorta Cudós to be head of the Engineering and Construction area. He was previously the Country Manager of SENER in Mexico. He joined SENER in October 2012.

Wilson to Receive Connie Award; Schleicher a Lifetime Achievement Honor

Michael Wilson, SVP of Business Operations for Hamburg Sud North America, will receive the 2018 Connie Award presented by the Containerization and Intermodal Institute. Roy Schleicher, who retired recently as EVP and Chief Commercial Officer of the Port of Jacksonville, will be presented with the Lifetime Achievement Award. Wilson has more than 39 years of experience with many firms, including United States Lines, Crowley Maritime, United Arab Shipping and Atlantic Container Line. Schleicher has more than 40 years of experience in the maritime industry, including service at the Port of Baltimore and the Maryland Port Administration.

Glosten Opens East Coast Office

Glosten announced the opening of their East Coast office in New Bed-

ford, MA. Glosten's expansion to the East Coast is in response to increasing regional client demand and opportunities. "In our 60th year serving the marine industry, we're reminded that our ability to endure is based on building strong relationships," said Glosten President Morgan Fanberg. "This expansion enables us to provide our East Coast-based clients and partners with the level of service and attention they deserve."

Marad to Open 'Gateway' Office in Paducah, KY

U.S. Secretary of Transportation Elaine L. Chao announced that the Maritime Administration will establish a dedicated Gateway office in Paducah, KY. Gateway offices provide assistance to public ports and state and local officials, addressing transportation congestion relief and improving freight and passenger movement. "The Paducah-McCracken County Riverport is a multi-modal center, with waterway, rail, and road connections, and with this level of maritime activity, it makes sense to place a Gateway office in Paducah," said Secretary Chao. MARAD has nine other Gateway offices in proximity to the nation's largest ports.

WFSA's Sixth Annual Design Contest Underway

The Worldwide Ferry Safety Association (WFSA) has announced its sixth annual international student design competition for a safe affordable ferry, seeking designs for a passenger vessel to traverse the iconic Pasig River of Met-

ropolitan Manila. The Metropolitan Manila Development Authority oversees the operation of a passenger service on the Pasig River around which the city was originally built and is planning a major new upgrade in coordination with effective efforts to clean the river. For more information about the contest, visit www.ferrysafety.org.

Marad Announces \$20 Million in U.S. Shipyard Grants

The U.S. Department of Transportation's Maritime Administration (MARAD) has awarded more than \$20 million in grants to support capital improvements at 29 U.S. small shipyards as a part of its Small Shipyard Grant program. MARAD's Small Shipyard grant funding supports capital improvements that foster increased efficiency and economic growth. Small shipyards must have less than 1,200 production employees to be eligible for grant awards. "By supporting small shipyards, we are investing in the maritime infrastructure of the country," said Maritime Administrator Mark H. Buzby. Since 2008, MARAD's Small Shipyard Grant Program has awarded over \$183 million to more than 180 shipyards.

Liebherr USA Celebrates Groundbreaking of VA HQ

Members of the Liebherr family, Executive Management and Newport News city officials gathered in late July for a groundbreaking ceremony to celebrate the construction of the new Liebherr USA headquarters in

PEOPLE & COMPANY NEWS



Doane

Butler

Davis

Cope

Helis

Chamber of Shipping of America (CSA)'s annual Jones F. Devlin Award

Newport News, VA. Liebherr has already been operating there for over 48 years. The new facilities include three new buildings: a state-of-the-art four-story administrative building, a warehouse and parts distribution center to meet current and future requirements, and a modernized production and workshop facility intended to support the company's cranes, construction and concrete divisions. Construction is expected to be completed in 2020.

Crowley Honored for 613 Combined Years of Safe Operations

Eighty-two Crowley Maritime Corporation owned or managed vessels recently received the Chamber of Shipping of America (CSA)'s annual Jones F. Devlin Awards in recognition of their outstanding safety records in 2017. Each year the CSA grants Devlin Award certificates to manned merchant vessels that have operated for two or more years without incurring a lost time injury (LTI). Crowley's vessels together have achieved an impressive total of 613 years of service without an LTI representing a diverse fleet that including tugboats and ATBs.

USMMA Unveils Strategic Plan

The United States Merchant Marine Academy (USMMA) at Kings Point has issued its new strategic plan. The plan, entitled, The U.S. Merchant Marine Academy Strategic Plan 2018-2023: Navigating Towards the Future Together, was 18 months in the making and provides guidance and direction for the near-term future of the

www.marinelink.com



MEETING YOUR DAILY CARGO CHALLENGES



- The largest rental fleet of spud, deck and material barges.
- 16 fleeting locations nationwide.
- Inland and ocean towing services.
- Operating 2 inland tugs.

"The Barge People"™

800.227.4348

New Orleans | Norfolk | Houston

www.mcdonoughmarine.com



PEOPLE & COMPANY NEWS



Chao



HHI Graduation



Weeks Marine



Bordelon

Academy. **James A. Helis**, Academy superintendent, said, “The resulting plan is, in its truest sense, an Academy plan produced by the Merchant Marine Academy community and family, focused on effectively and efficiently operating the Academy over the course of the next five years.”

Marad Awards \$4.8 Million in Marine Highway Project Grants

U.S. Department of Transportation Secretary **Elaine L. Chao** announced \$4,872,000 in grants to six Marine Highway projects. The funding, provided by the Maritime Administration’s Marine Highway program, will enhance marine highways serving ports in Louisiana, Virginia, New York, and Connecticut, and support the development of new container-on-barge services in Kentucky and Rhode Island. “Strengthening the country’s waterways and domestic seaports stimulates economic growth, reduces congestion and increases the efficiency of our national freight transportation system,” said Chao. The Marine Highway Program supports the expanded use of navigable waterways to relieve landside congestion and works with public and private stakeholders to achieve these goals.

Twin Disc Closes Veth Propulsion Acquisition

Twin Disc announced that it has completed the \$60.8 million acquisition of Veth Propulsion Holding, B.V. and its wholly-owned subsidiaries, a

global supplier of main and auxiliary marine propulsion products. The acquisition of Veth Propulsion expands Twin Disc’s presence in the market by adding complementary products and powerful new technologies. Additionally, Veth Propulsion enhances Twin Disc’s engineering talent and product development capabilities.

J.F. Lehman to Sell NRC Group

J.F. Lehman & Company announced that it will sell all its membership interests in NRC Group Holdings, LLC. NRC Group is a global provider of comprehensive environmental, compliance and waste management services.

HHI Apprentice School Graduates 110

Huntington Ingalls Industries’ Ingalls Shipbuilding division hosted a graduation ceremony on Saturday for the company’s apprentice program. Sen. **Cindy Hyde-Smith**, R-Miss., delivered the keynote address, telling the graduates: “The success of our world-class shipbuilding programs is due to your professionalism and commitment to your craft and this country ... as graduates, you will play such an important role for our nation.” Since 1952, Ingalls’ Apprentice School has produced more than 5,000 graduates trained to fulfill the shipyard’s operational needs. The program offers a two- to four-year curriculum, in partnership with the Mississippi Gulf Coast Community

College, for students interested in shipbuilding careers.

Weeks Marine Invests Again at Maritime Program at Louisiana College

Weeks Marine recently visited Northshore Technical Community College (NTCC) in Lacombe, LA to announce major contributions totaling \$500,000, to support the college’s maritime training program and scholarship fund. This is the second donation Weeks Marine has made to NTCC, for a total investment of \$750,000 since 2016. Since 2015, Weeks Marine has served on the NTCC Maritime Consortium, guiding and building the maritime program curricula to ensure that graduating students are well-equipped to meet the needs of the maritime industry.

Bollinger Commits USCG Icebreaker Program to FLA

Bollinger Shipyards has selected Tampa Shipyard for design and construction of up to three heavy polar icebreakers, and three additional medium sized breakers under consideration by the Coast Guard. “We are excited to respond to the Coast Guard’s need to recapitalize its depleted polar capabilities. We expect to fill our capable production facility in Tampa with over 1,000 highly skilled full-time shipyard workers beginning as early as 2020,” said **Ben Bordelon**, Bollinger’s President and CEO.



Foss Maritime Centralizes Vessel Operations with Helm CONNECT

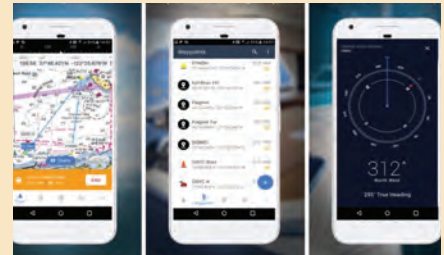
Foss Maritime has announced that they have kicked off a company-wide project to centralize fleet management and operations with Helm CONNECT, a marine software platform. The announcement comes as Foss moves forward on an initiative to better organize and streamline operations across core business units and wholly-owned subsidiaries along the U.S. West Coast, and in Hawaii and Alaska.

www.helmoperations.com

ZigBoat Tracks Multiple Sensors

With the new ZigBoat from Glomex Marine Antennas USA, owners have absolute peace-of-mind that the boat is safe and protected. It's a modular wireless system that can monitor everything from water in the bilge to movement on the deck. It's all easily tracked on a smartphone and if something goes awry, it will trigger a notification and can instantly send an SMS message.

www.glomex.us



iNavX Brings AIS Live coverage to Mobile Devices

iNavX has launched iNavX AIS Live. Available on both iOS and Android versions of iNavX, iNavX AIS Live connects a user's mobile device to the AIS Live global network of antennas. Real-time ship movements are broadcast to the iNavX app and overlaid directly on the chart. Offering mariners peace of mind, AIS Live provides instant access to AIS data; making ships in the immediate vicinity visible without the need for a radar or AIS transponder.

www.inavx.com



Optimarin BWTS Chosen for USCG OPC Program

Eastern Shipbuilding Group (ESG) has selected Optimarin to supply the BWTS for nine Offshore Patrol Cutters (OPC) to be built at their Panama City, FL shipyard. The agreement with ESG will see the Optimarin Ballast Systems (OBS) fitted in the new OPCs. The OBS utilizes a combination of filtration and powerful UV lamps to treat ballast water without the need for chemicals. The systems are simple to operate, maintain and due to their modular design can be fitted in vessels where available space is at a premium.

www.optimarin.com

XMT 350 FieldPro System Saves Time and Money

Miller Electric's new XMT 350 FieldPro system with Polarity Reversing eliminates the need to manually swap leads between welding processes — saving time and money and improving safety on the job-site. With the push of a button on the interface, Quick-Select technology automatically selects the correct polarity, lead outputs and weld parameters. This prevents operators from inadvertently welding in the wrong polarity, reducing the risk of weld rework that results from incorrect cable connection. Quick process changeover also eliminates the setup time spent switching cables and gas hoses.

www.MillerWelds.com

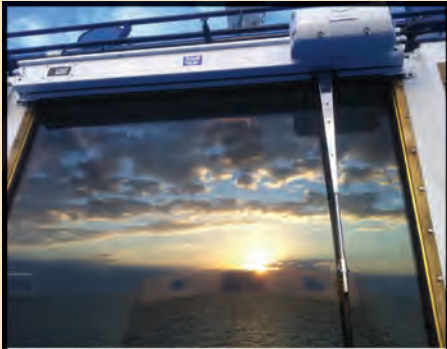


Ecochlor Offers the First BWTS Compliance Guarantee

Ecochlor is offering the first ballast water treatment system (BWTS) compliance guarantee. EcoCare is a multifaceted guarantee that ensures regulatory compliance with IMO, USCG and individual U.S. state standards. Additionally, the guarantee addresses system efficacy as it pertains to treating ballast water for invasive species contamination. Finally, it insures against financial penalties up to \$1,000,000* relating to possible fines, port charges, delays and off-hire if ballast water properly treated using Ecochlor's BWTS fails an invasive species test.

www.ecochlor.com

PRODUCTS



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

Harken Industrial's C-Hero Man Overboard Rescue System

Harken Industrial's C-Hero Man Overboard Rescue System includes the C-Hero Vertical Rescue Davit, a lightweight portable man overboard system, which consists of a small crane and a self-tailing Harken winch, that quickly attaches to any bitt on a boat.



The radial winch in this system provides mechanical assistance that allows a rescue to be performed by a single crewmember. The crane's boom is long enough to clear tires and fenders.

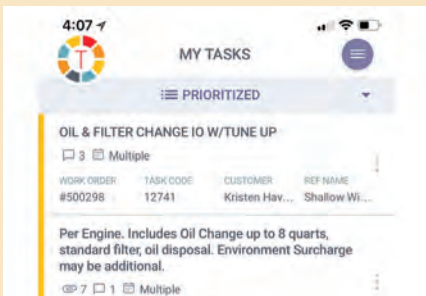
www.c-hero.com



GTMaritime's SeaMail Optimized for Fishing Vessels

GTMaritime, a specialist in providing communication solutions to the maritime industry, has launched SeaMail - a new intuitive and cost-effective email solution that is specifically optimized for smaller vessels including fishing craft. Utilizing SeaMail's efficiencies, small vessels can communicate easily with the shore while reducing their costly satellite bandwidth usage, saving up to 80% on their satellite airtime.

www.GTMaritime.com



The MyTaskit mobile app

MyTaskit, a work coordination platform for marine service businesses, debuts its new mobile app, expanding on MyTaskit Pro's ability to transform how a service company coordinates work—in real time, from the field. This new app enables service companies to get more organized and in control of their business, facilitating fast, efficient views of tasks. The ability to update work orders in real-time ultimately increases productivity.

www.mytaskit.com

SkimOil's Next Generation MarineVAP Evaporators

SkimOil's next generation electric MarineVAP evaporators automatically evaporate away bilge water, gray water and even treated black water with no emissions. With far greater control and monitoring of the whole process, the new MarineVAP with improved safety features: the materials, and controls technology and capabilities have caught up with the times, just in time for Subchapter M. No discharge is a good discharge.

www.MarineVAP.com



Delta "T" Fully Functional Shippable Displays

Delta "T" Systems has designed functioning tabletop product demos of its Slimline A-60 Rated Marine Fire Damper and Dinak modular dry stack exhausts. The company will ship the devices to naval architects, marine engineers and boatbuilders for evaluation and testing. Delta "T" Systems manufactures a full line of USA-built fire dampers, axial and duct fans, blowers, louvers, moisture eliminators, weather closures and controls.

www.deltatsystems.com



Wärtsilä 34DF Engine is EPA Tier III Certified

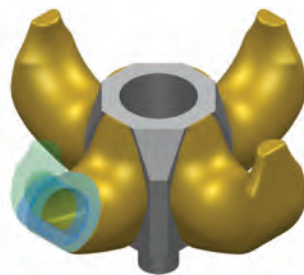
Wärtsilä's 34DF dual-fuel engine has been awarded the USA EPA Tier III certification for diesel mode operation when installed together with the Wärtsilä NOx Reducer (NOR) system. The Wärtsilä NOR is a selective catalytic reduction (SCR) system that converts nitrogen oxides (NOx) with the aid of a catalyst into diatomic nitrogen (N2) and water. Wärtsilä is the first engine manufacturer to be awarded this certification.

www.wartsila.com

Huisman, RAMLAB Collaborate on 3D Printed Steel Crane Hook

Huisman and RAMLAB will produce a large offshore crane hook using the 3D printing technique. The hook, based on a Huisman 4-prong hook design, will employ 3D printing benefits. The product will be hollow, saving on material usage and production lead time and will be the world's largest 3D printed steel product in terms of weight. DNV GL, Bureau Veritas and ABS, have joined this project.

www.huismanequipment.com



Yale Cordage Acquires Large Test Bed

Yale Cordage has acquired a Sahn Splice test bed for destructive and non-destructive testing of synthetic rope, wire rope, shackles, chain, and slings up to 1,300,000 pounds in tensile and a low-range capacity of up to 250,000 pounds. With a maximum test sample length of 116 feet with a 15 foot stroke, it is one of the largest and most capable test beds in the eastern United States.

www.yalecordage.com



JMP to Manufacture Albin Pump Impellers

JMP Marine has signed an agreement to supply Albin Pump Marine with flexible impellers for its OEM products. A proprietary blend of materials with a special wax infusion and brass inserts set JMP flexible impellers apart from the competition. Resistant to salt, oils and chemicals, they're heat-resistant to 180° F, and deliver the superior reliability and wear-resistance OEMs demand.

www.albinpumpmarine.com / www.jmpusa.com

Sea-Fire Marine Recertifies to ISO 9001:2015 Standards

Sea-Fire Marine has recertified to ISO 9001:2015 standards. This comes on the heels of the company relocating its North American corporate headquarters into a state-of-the-art 30,000 sq. ft. manufacturing space. The new 2015 ISO standard retains the same core values of a sound quality management system (QMS) outlined in ISO 9001:2008, while adding a focus on risk assessment.

www.sea-fire.com



Aluminum Anodes for Aluminum Boats

Aluminum needs special precautions to prevent galvanic corrosion in salt or brackish water. Performance Metals' USA-made Navalloy is a unique aluminum alloy that becomes the sacrificial metal when used as an anode on aluminum. Navalloy protects in all salinities and lasts longer. As the metal corrodes, a bright red bar becomes visible, providing the cue that it's time to replace the part.

www.performancemetals.com

Post Your Resume for Free • Energize Your Job Search @ MaritimeJobs.com

MaritimeJobs.com

where employers and job seekers connect

The Maritime Industry's Leading Employment Website. For more information contact: Jean Vertucci at vertucci@marinelink.com

VESSELS FOR SALE / BARGES FOR RENT

TUGS/BARGES FOR RENT
BARGES SIZED FROM 8'x18' TO
45'x120' ALSO "SHUGART"
SECTIONAL BARGES
"TRUCKABLE TUGS" HERE

Smith Brothers Inc.,
Galesville, MD 20765
(410) 867-1818
www.smithbarge.com



We buy barges, ships, and
other marine vessels and
structures for scrap.

We adhere to the highest
ES&H standards.

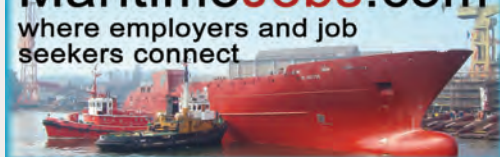
Serving the rivers and
coasts of the U.S.

AMELIA • BROWNSVILLE
LAKE CHARLES • MOBILE
MORGAN CITY • NEW ORLEANS

us.emrgroup.com

CALL 800 - GO SCRAP

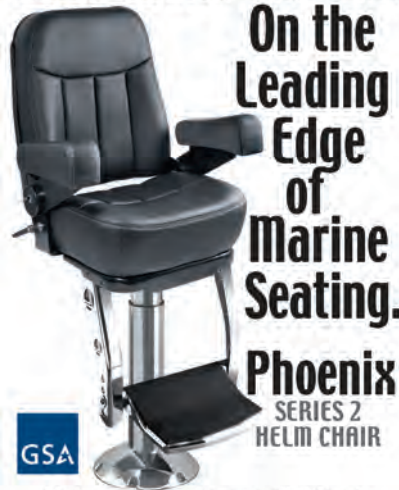
10 years online over 2 million users
MaritimeJobs.com
where employers and job
seekers connect



NEW PRODUCTS



WWW.LLEBROC.COM • 800-284-5771



On the
Leading
Edge
of
Marine
Seating.

Phoenix
SERIES 2
HELM CHAIR

GSA

Llebroc Seats Now Available at

S3 MARITIME
SYSTEMS • SERVICE • SUPPORT

206-420-4932 • www.s3maritime.com

MARINE & DREDGE
DIVISION
Leading The Way

Hard Coated Liner Sleeves • Marine
Propulsion Shafts • Pump Rebuild
Replacement Parts
Jockey Bar & Steering Linkage Pins

1-800-477-4460
www.TriStateCoating.com

Operator panels

X2 marine

Built for life at sea

X2 series. Strong. Stylish. Smart.

Learn more at beijerelectronics.com/x2marine

Beijer
ELECTRONICS

X2 marine panels are available in 7 and 15 inches with optional high brightness display and integrated CODESYS PLC functionality.

Marine Marketplace

NEW PRODUCTS

New! "Very Smart" Programmable Battery Chargers



ABS
TYPE APPROVED PRODUCT

with System Self Monitoring/Diagnosis and Onboard Serviceability via Modular Components

NEWMAR
DC Power Onboard

www.DCPowerOnboard.com
800-854-3906

WHEN SECONDS COUNT

RADIO DIRECTION FINDERS for...

- Man-Over-Board
- Search and Rescue
- Radio Monitoring
- Asset Recovery
- COSPAS-SARSAT 406MHz
- Radio Location






RHO International Inc. **THEIA**

(954) 495-8700 • www.rhothetaint.com

Tank Tender
THE ORIGINAL PRECISION TANK MEASURING SYSTEM!

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



HART SYSTEMS, INC. www.TheTankTender.com
(253) 858-8481 • FAX (253) 858-8486

We Build the Ship First.

**Production Lofting
Detail Design
3D Modeling**



St. John's, NL
Vancouver, BC
New Orleans, LA

709.368.0669 | 504.287.4310

www.genoadesign.com



WHITING

**HONEYCOMB PANELS
ALUMINUM DOORS**

Aluminum Honeycomb Joiner Doors
Type I - Type IV doors

Extruded Aluminum Joiner Doors
Type A - Type P Stile doors

Class C Approved Panels
Water Closet Partitions



Aluminum honeycomb panel with melamine facings




Honeycomb Door

Extruded Alum Door

WHITING CUSTOM LAMINATED PANELS

Phone: (716) 542-5427
Web: www.whitingdoor.com
Email: RayHackett@whitingdoor.com

Industrial-Grade Pressure Washers



WATER CANNON .COM

35
CELEBRATING YEARS OF SERVICE

WaterCannon.com
800.333.9274

Marine Marketplace

NEW PRODUCTS

WILKES & MCLEAN
Got Noise?
HYDRAULIC SUPPRESSOR

Noise, Shock, Vibration & Pulsation In Quiet, Smooth Flow Out

Oil Bladder Nitrogen (blue)

Three Stage Noise & Pulsation Reduction Chamber

QUALITY NACOL ACCUMULATORS

- No seam, pleated bladders
- Forged shells, no welds
- Long lasting, best built accumulators
- We stock 1/5 pint to 15 gallons in Chicago
- Sizes available to 40 gallons

Nacol Accumulators

pacific marine
e x p o

Visit us at booth # 950

Wilkes & McLean, Ltd. 877-534-6445 www.wilkesandmclean.com info@wilkesandmclean.com

AIMAN ALIGNMENT Ph: 813-715-4600 • sales@aimanalignment3D.com

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

MARINE EXHAUST SYSTEMS OF ALABAMA INC

www.mesamarine.com • marine.exhaust@gmail.com • 1-251-928-1234

Vesconite Hilube
Rudder and Stern Tube Bearings

- Use dry or underwater
- No grease needed
- Lowest friction
- Fit and forget

ABS

Call for free Design Manual
1-866-635-7596

www.vesconite.com

Signal Mate

COMMERCIAL / MILITARY
 UL 1104 Certified LED Navigation Lights

- » Inspected vessels 20 meters and over
- » Blue Water vessels 50 meters and over
- » Modular design rated IP67
- » Replaceable: LED module and power supply
- » Single head (one power input)
- » Double head (two power inputs) for redundancy
- » Autonomous: Double head (one power input)
- » 120 - 240 VAC, 12 - 32 VDC, or both
- » Monitor LED intensity models - IMO MSC 253 (83) 4.3

www.SignalMate.com | 410-777-5550 | info@SignalMate.com

MARITIME PROPULSION

Powering the Maritime Industry

Maritime Propulsion is the online database for marine power and propulsion equipment. Find product reports, engine specifications, suppliers, and auxiliary machinery.

www.maritimepropulsion.com

Marine Marketplace

NEW PRODUCTS

**AC & DC
Electrical Panels**



Customized to Specifications

*Send Us Your Sketch,
We'll Do the Rest!*

NEWMAR
DC Power Onboard™
www.DCPowerOnboard.com
800-854-3906

PROFESSIONALS

SUBCHAPTER M DEADLINE

LMAO;))

Last Minute Audit Opportunity...



Management audits should be completed before the end of 2018 to get your COIs on time. 25% of your towing vessels need COIs by July 20, 2019 but must first operate under a TSMS certificate for 6 months. Decatur Marine is the rising star among USCG TPOs – get on our audit schedule before it's too late!

www.decaturm.com | p. 703-564-7563

US Coast Guard Approved

- STCW-95 Basic Safety Training
- 3-Day STCW Refresher
- Proficiency in Survival Craft (Lifeboat)
- Advanced Firefighting
- Tankerman-Barge PIC
- Vessel Personnel with Designated Security Duties (VPDSD)



EL Camino College
Workplace Learning Resource Center
13430 Hawthorne Blvd. • Hawthorne, CA 90250
Ten (10) minutes from LAX • Twenty (20) minutes from LA Harbor
Call for Information & Registration (310) 225-8200
Receptionist: (310) 225-8247
<http://businessassist.elcamino.edu/stcw-maritime-industry-training.html>

Maritime Today
E-News Service

In business, time is of the essence.




Stay up to date with the latest
NEWS & INFORMATION...

from the industry's leading source, providing you with daily updates on the subjects that pertain to your business.

www.marinelink.com

Marine News

The power to reach the largest audited circulation in the workboat market.



www.marinelink.com

Marine News Classified Sales

Well hello! We're glad to see you decided to read this. You just proved that Classified Advertising works. Marine News has the highest circulation serving the workboat industry giving your Classified Ad the highest exposure at the lowest cost.

- ★ Cost Effective Advertising
- ★ Lower Cost = Higher Frequency
- ★ Higher Frequency = More Visibility
- ★ More Visibility = Higher Sales
- ★ Higher Sales = Happy Advertisers

www.marinelink.com

**Designed for:
Heavy Duty**

JMS
NAVAL ARCHITECTS

JMS-Designed.
Stevedoring barge
300' x 72' • 6,000 psf deck
Built by Conrad Shipyard for the Rhode Island Commerce Corp. and Port of Providence



www.JMSnet.com
860.536.0009
Barges, Dry Docks,
& Work Boat Design

ADVERTISER INDEX

Page	Company	Website	Phone#
27	Ahead Sanitation.....	www.aheadsanitationsystems.com.....	(337) 330-4407
27	BSRM Inc.....	www.bsrminc.com.....	(888) 509-0668
C3	Commercial Marine Expo.....	www.comarexpo.com.....	Please visit our website
33	Creative Systems.....	www.ghsport.com.....	(360) 385-6212
C2	Cummins Commercial Marine	www.marine.cummins.com.....	Please visit our website
3	Engines, Inc.....	www.enginespower.com.....	(870) 268-3700
21	Gladding Hearn.....	www.gladding-hearn.com.....	(508) 676-8596
23	Herbert-ABS Software Solutions LLC.....	www.herbert-abs.com.....	(510) 814-9085
23	Hilliard Corp.....	www.hilliardcorp.com.....	(607) 733-7121
58	In-Mar Solutions.....	www.inmarsystems.com.....	(225) 644-7063
16,17	Marine Systems, Inc.....	www.marinesystemsinc.com.....	(985) 223-7100
55	McDonough Marine Services.....	www.mcdonoughmarine.com.....	(504) 780-8100
C4	R.W. Fernstrum & Company.....	www.fernstrum.com.....	(906) 863-5553
25	Rosepoint Navigation.....	www.rosepoint.com.....	(425) 605-0985
45	Schoellhorn-Albrecht.....	www.schoellhorn-albrecht.com.....	(314) 965-3339
29	SF Marina USA.....	www.sfmarinausa.com.....	(207) 347-4237
13	SHIPPINGInsight 2018.....	www.SHIPPINGInsight.com.....	(203) 255-4686
35	SNAME.....	www.snameconvention.com/register.....	Please visit our website
45	Superior-Lidgerwood-Mundy, Corp.....	www.lidgerwood.com.....	(714) 394-4444
9	Teufelberger Fiber Rope Corp.....	www.teufelberger.com.....	(800) 333-6679
11	Volvo Penta.....	www.volvopenta.com.....	Please visit our website
7	YANMAR America Corporation.....	www.yanmar.com/us.....	Visit us online

M CHANGING THE WAY WE DELIVER NEWS

Get instant updates- on your phone or tablet!

Maritime Global News For iPhone and Android

DOWNLOAD THE FREE APP

© 2013 Maritime Activity Reports

Apple, the Apple logo, iPhone, iPod touch, iPad and iTunes are trademarks of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc. Android is a trademark of Google, Inc.

The listings above are an editorial service provided for the convenience of our readers. If you are an advertiser and would like to update or modify any of the above information, please contact: nicole@marinelink.com

COMMERCIAL MARINE EXPO

2018 | Providence, RI



Earn a living on the waterfront? Join us at the Atlantic
Seaboard's Largest Commercial Marine Trade Show

Wednesday, October 17, 2018

Thursday, October 18, 2018

RHODE ISLAND CONVENTION CENTER



Register FREE at WWW.COMAREXPO.COM

USE CODE **MN2018** TO ENTER TO WIN
A \$100 AMAZON GIFT CARD!

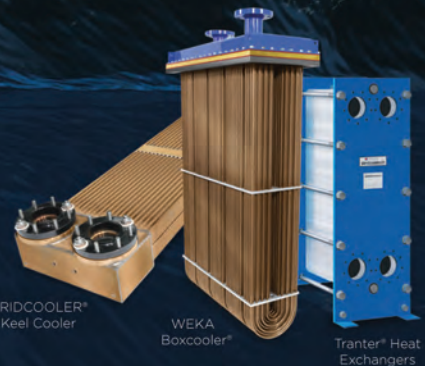
YOU DON'T WORRY ABOUT KEEPING YOUR COOL — UNTIL YOU LOSE IT.

Get it. Never lose it.

Expect peak cooling efficiency.
Expect trusted dependability.
Expect expert support.

R.W. Fernstrum Cooling Solutions.

fernstrum.com | 906.863.5553 | sales@fernstrum.com



GRIDCOOLER®
Keel Cooler

WEKA
Boxcooler®

Tranter® Heat
Exchangers

FERNSTRUM®
R.W. Fernstrum & Company

R.W. Fernstrum & Company is an ISO 9001:2015 Certified Company