The Information Authority for the Workboat • Offshore • Inland • Coastal Marine Markets

Marine News

NOVEMBER 2013
www.marinelink.com

Back to Work

Digesting the New Offshore Rules

Fleet Optimization:
Remote Monitoring takes Center Stage

Inland Infrastructure:
AIWW's Federal Frustration

Emissions Unencrypted:
EPA Tier 4 Workboat Solutions

MODUTECH MARINE INC.

BUILDERS OFWORLD CLASS COMMERCIAL BOATS

Modutech Marine 95' Multi Mission Boat (MMB)

95' long x 28' beam aluminum Multi Mission Boat (MMB) with raised Pilothouse, transom ramp to transition payloads to/from ocean surface to/from an Aft Flat Cargo Deck, deck cranes, and dedicated Electronics Equipment Compartment.

- *Operations include, but are not limited to, launch and retrieval of underwater targets, retrieval of torpedoes, launch and retrieval of surface targets, launch and retrieval of air targets, electronic warfare, and use in training evolutions for seamanship and vessel boarding.*
- *Mission duration is 7 to 10 days with 24/7 operations. Full load speed 17 knots. Cruise speed in excess of 13 knots. Fuel capacity sufficient for 1200 nautical mile range at cruise speed.*
- *Fully capable of conducting mission operations in Sea State 3; transit and survive Sea State 5. Capable of operating in all weather conditions.*

MODUTECH MARINE INC. 2218 MARINE VIEW DRIVE. TACOMA, WA. 98422
PHONE: (253) 272-9319 FAX: (253) 272-9337
www.modutechmarine.com

TOP OF THE LINE

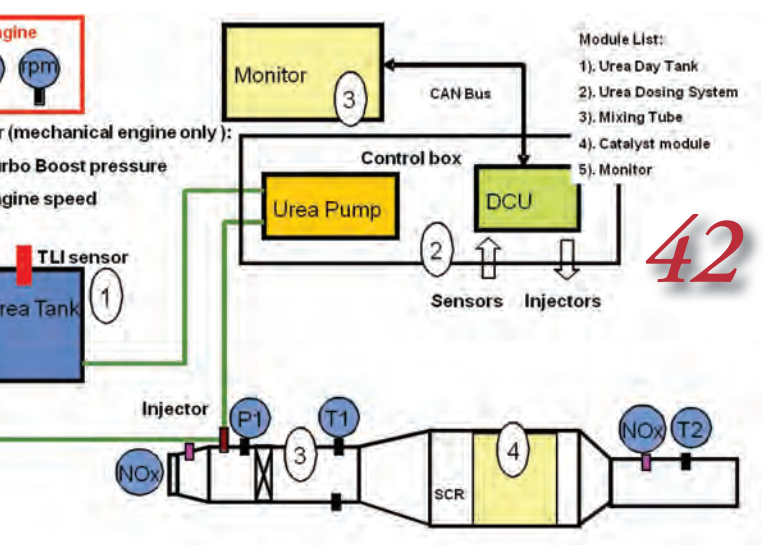
Scott Safety is proud to offer products designed to keep you working hard and working safely. Our gas detection, emergency escape and emergency response products are time tested, reliable and durable and are now even easier to order and maintain. Trust Scott Safety and our global partners to provide smart solutions optimized for your needs.

TO LEARN MORE, VISIT SCOTTSAFETY.COM/MARINE

SCOTT SAFETY

MARINE | OIL & GAS

MarineNews November 2013 • Volume 24 Number 11



EST. 1922

TAKE COMMAND

You've got a lot riding on this. A job, a contract, a crew. So you take command with KOHLER® commercial marine generators. They give you reliable, tough-as-nails power. And they're backed by a service network around the coasts and up and down The River.

KOHLER. Marine

99EOZC 99 kW

KohlerMarine.com | 877.910.8349

MarineNews

ISSN#1087-3864 USPS#013-952
Florida: 215 NW 3rd St., Boynton Beach, FL 33435
tel: (561) 732-4368; fax: (561) 732-6984
New York: 118 E. 25th St., New York, NY 10010
tel: (212) 477-6700; fax: (212) 254-6271
www.marinelink.com

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 • Randy O'Neill

PRODUCTION
Production & Graphics Manager Nicole Ventimiglia • *nicole@marinelink.com*

SALES
Vice President, Sales & Marketing
Rob Howard • *howard@marinelink.com*

Sales Administration & Office Manager Rhoda Morgan • *morgan@marinelink.com*
Sales & Event Coordinator Michelle Howard • *mhoward@marinelink.com*
Classified Sales (212) 477-6700

Advertising Sales Managers

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

Lucia Annunziata • *annunziata@marinelink.com*
Tel: 212-477-6700 Fax: 212-254-6271

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

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

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

Dawn Trauthwein • *dtrauthwein@marinelink.com*
Tel: 631-472-2715 Fax: 631-868-3575

Jean Vertucci • *vertucci@marinelink.com*
Tel: 212-477-6700 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, Accounting Services Rhoda Morgan • *morgan@marinelink.com*
Manager, Public Relations Mark O'Malley • *momalley@marinelink.com*
Manager, Marketing Jocelyn Redfern • *jredfern@marinelink.com*
Manager, Info Tech Services Vladimir Bibik • *bibik@marinelink.com*

CIRCULATION
Circulation Manager Kathleen Hickey • *mncirc@marinelink.com*

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

POSTMASTER Time Value Expedite

BPA WORLDWIDE BUSINESS

On the Cover

(U.S. Coast Guard photo by Petty Officer 3rd Class Patrick Kelley)

MarineNews ISSN#1087-3864 is published monthly, 12 times a year by Maritime Activity Reports, Inc., 118 East 25th Street, New York, N. Y. 10160-1062. The publisher assumes no responsibility for any misprints or claims and actions taken by advertisers. The publisher reserves the right to refuse any advertising. Contents of this publication either in whole or in part may not be reproduced without the express permission of the publisher.

POSTMASTER: Send address changes to ***MarineNews***, 850 Montauk Hwy. #867 Bayport, NY 11705.
MarineNews is published monthly by Maritime Activity Reports Inc. Periodicals Postage paid at New York, NY and additional mailing offices.

KVH® INDUSTRIES

MINI-VSAT BROADBAND

WORLD'S No. 1 MARITIME VSAT SERVICE

The No. 1 maritime VSAT network brings a new dimension to broadband at sea.

SATCOM... and beyond!

KVH's new IP-MobileCast is a unique content delivery service providing affordable news, sports, entertainment, electronic charts, and weather *on top* of your mini-VSAT Broadband connection.

Introducing IP-MobileCast™

- Movies & IPTV
- TV News & Sports Clips
- Newspapers
- Radio
- Training & e-Learning
- Crew Social Media
- Weather Files & Forecasts
- Full ECDIS Chart Database Delivery & Updates

KVH's end-to-end solution empowers you to deliver the bandwidth your operations demand, keep your crew happy, and manage your budget... *all at the same time.*

Get the details:

www.minivsat.com/VIP

New VIP-series features powerful Integrated CommBox™ Modem (ICM) – the hub for IP-MobileCast services.

KVH INDUSTRIES WORLDWIDE

World HQ: United States | info@kvh.com +1 401.847.3327

EMEA HQ: Denmark | info@emea.kvh.com +45 45 160 180

Asia-Pacific HQ: Singapore | info@apac.kvh.com +65 6513 0290

keefe@marinelink.com

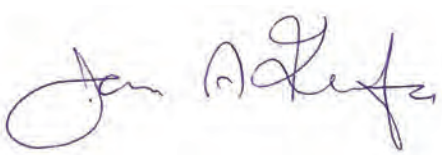
Optimizing both a fleet of workboats and the business model that makes all of that possible is probably the highest priority item on your plate, every day. And, as you will soon discover within the pages of this edition of ***MarineNews***, fleet optimization can mean 10 different things to 10 different operators. The way forward for those that will survive this robust but equally difficult business climate necessarily involves regulatory compliance, a weather eye on new rulemaking efforts that loom large in the center porthole, successfully navigating the need for the Holy Grail of fuel economy and reduced stack emissions and a dozen more goals. I don't have to list them all; you already know what you are up against.

As complicated as it may seem, my take on fleet optimization nevertheless says that it can be boiled down to the lowest common denominator of remote monitoring. That's right: *remote monitoring*. Today's marine equipment, technology and sophisticated communications capabilities allow operators to see virtually every aspect of their far flung fleets, in real time and down to the smallest of detail. What do you wish that you could see, right now? Chances are; you can do that. That high-tech window on your business world won't be inexpensive but the future dividends promise a handsome return on that investment. The story starts on page 38.

Optimizing a fleet in 2013 and beyond will also involve compliance with a complicated regulatory scheme that is still evolving. The United States Coast Guard, for example, alone has almost 70 new rulemaking proposals in play at this time, never mind anything individual states, the IMO and EPA can cook up on their own. I don't have a crystal ball to see what all of that is going to entail, when it will happen, and why. And, neither do you. Nevertheless, business decisions will have to be made today based on assumptions that may or may not represent the actual regulatory scheme(s) that come to pass. Hence, a large portion of this edition is also devoted to providing guidance and some clarity for marine operators who find themselves scratching their heads as to what to do next.

The sobering truth for maritime stakeholders, especially those domestic operators right here at home, is that some aspects of business conditions will always be beyond their immediate control. You can "optimize" to prepare for all eventualities, but for things like port infrastructure, locks and dams and even the bare bones luxury of minimum under keel clearance in our waterways, we need to hope that the government does their part, as well. Also within these pages, you will find out why this isn't always the case.

As you go about your daily business, industry advocates, trade associations and stakeholders continue to beat the drum on your behalf. So, too, will ***MarineNews***. That's because – unlike the trip that takes a vessel from point A to point B with your customer's cargo – there is simply no end to this particular voyage.



Joseph Keefe, Editor, keefe@marinelink.com

WE POWER YOUR BUSINESS

engines, inc.

Your Power Source

INTEGRITY SETS US APART

engines, inc.
Jonesboro, AR • 800-562-8049
Conroe, TX • 936-441-5592
www.enginespower.com
24-Hour Service Line
870-268-3799

JOHN DEERE POWER

YOUR **BEST** CHOICE

FOR 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 bottom line. When you choose a power generation package from **engines, inc.**, you can rest assured that you are getting the best engineered package available anywhere and we stand behind it with the most reliable 24/7 support structure in the business. Our extensive dealer network is able to provide reliable service and dependable support wherever you are, whenever you need them and our skilled staff is always available on our 24-Hour Service Line.

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.**

AUTHORIZED JOHN DEERE ENGINE DISTRIBUTOR

Active Regulatory Projects

The September hearing held by the House subcommittee on Coast Guard and Maritime Transportation centered on maritime transportation regulations and their ultimate impact on safety, security, jobs and the environment. As various industry advocates used the public venue as a vehicle to vent and for elected officials to call attention to various 'rice bowl' agendas, the scope and breadth of the regulatory labyrinth being endured by the domestic maritime industry became fully evident. A primary focus of the meeting involved ongoing delays at DHS and the U.S. Coast Guard in getting regulations passed in a timely fashion. Indeed, U.S. Coast Guard Rear Admiral Joseph Servidio, Assistant Commandant for Prevention Policy, admitted to a backlog of some 68 projects (rulemaking efforts) that would still be in play by the end of this calendar year. Of particular interest to many was the proposed so-called subchapter "M" rule that will profoundly affect the inland towing industry, if and when a final rule ever gets passed. But, as *MarineNews* readers will soon discover, Subchapter "M" is just one of dozens of rulemaking efforts on the plate of the U.S. Coast Guard. And, after scrolling through the (complete, 68 item) and mind-numbing list below, you'll discover why it's no wonder that it takes forever to get anything done:

	Phase	Title (condensed descriptions)	RIN	Docket
1	FR	Nontank Vessel Response Plans	1625-AB27	2008-1070
2	FR	2013 46 CFR Technical Amendments		
3	ANPRM	Safety Management System Requirements (OCS)	1625-AC05	
4	FR	Bulk Packaging: Allow for Transfer of Hazardous Liquid Cargoes	1625-AB63	2011-0088
5	FR	Seagoing Barges	1625-AC03	2011-0363
6	NPRM	Vessel Traffic Service Updates, Various (TX, WA)	1625-AB81	
7	IR	Double Hull Tanker Escorts - Prince William Sound Alaska	1625-AB96	2012-0975
8	NPRM	Personal Flotation Devices Labeling and Standards	1625-AC02	
9	NPRM	Great Lake Pilotage Rates / 2014 Annual Review & Adjustment	1625-AB89	2013-0534
10	NPRM	Lifesaving Devices on Uninspected Vessels	1625-AB83	
11	FR	Marine Vapor Control Systems	1625-AB37	1999-5150
12	IR	Reg. Nav. Area- Bars Along the coasts of OR & WA	1625-AC01	2013-0216
13	FR	33 CFR Tech Amendments	1625-AC08	2013-0671
14	NPRM	Commercial Diving Operations	1625-AA21	1998-3786
15	NPRM	Installation/Use of Engine Cut-off Switches (Recreational Boats)	1625-AB34	1998-3786
16	FR	Letters of Recommendation for LNG / LHG Waterfront Facilities	1625-AA21	1998-3786
17	NPRM	Higher Volume Port Area–State of Washington	1625-AB75	2011-0576
18	SNPRM	Claims Procedures under the Oil Pollution Act of 1990	1625-AA03	2004-17697
19	NPRM	Vessel Security Officer Training & Certification for STCW	1625-AB26	2008-0028
20	NPRM	Updates to Standards Incorporated by Reference	1625-AB98	2012-0866
21	NOI	Commercial Fishing Industry Vessels	1625-AA77	2003-16158
22	SNPRM	Outer Continental Shelf Activities	1625-AA18	1988-3868
23	SNPRM	Cargo Securing on Vessels Operating in U.S. Waters	1625-AA25	2000-7080
24	NPRM	Consolidated Cruise Ship Regulations	1625-AB30	
25	NPRM	Assessment Framework for Preemption for Certain Regulations	1625-AB32	
26	NPRM	Updates to Maritime Security	1625-AB38	
27	NPRM	Revision of Coast Guard Auxiliary Regulations	1625-AB66	
28	NPRM	Ballast Water Management Reporting and Recordkeeping	1625-AB68	2012-0924
29	NPRM	Tonnage Regulations Amendments	1625-AB74	
30	NPRM	Revision of Crane Standards: MODU, OSV & and Floating OCSFs	1625-AB78	
31	NPRM	Cruise Vessel Security and Safety Act of 2010: Implementation	1625-AB91	
32	NPRM	Electrical Equipment in Hazardous Locations	1625-AC00	
33	NPRM	Personal Flotation Devices Labeling and Standards	1625-AC02	2013-0263

KEEPING YOUR PROPS TURNING

WITH OVER 100 YEARS EXPERIENCE OF INNOVATIVE MARINE ENGINEERING, VOLVO PENTA PRODUCTS ARE UNCOMPROMISINGLY DURABLE AND RELIABLE.

The Volvo Penta **D13 MH** is designed to keep running, year in and year out. With **extended service intervals** and **reduced fuel consumption**, this **Tier 3 compliant** engine will make a positive impact on your bottom line.

Engine	Crankshaft hp/W	Cylinders	Displacement cui / litres
D13 MH	400 / 294	6	780 / 12.8
D13 MH	450 / 331	6	780 / 12.8
D13 MH	500 / 368	6	780 / 12.8
D13 MH	550 / 404	6	780 / 12.8
D13 MH	600 / 441	6	780 / 12.8
D13-700	700 / 515	6	780 / 12.8
D13-800	800 / 588	6	780 / 12.8

Also available as marine and industrial generators and auxiliary powerpacks.

POWERING YOUR SUCCESS **WWW.VOLVOPENTA.COM**

VOLVO PENTA

	Phase	Title (condensed descriptions)	RIN	Docket
34	FR	Implementation of the 1995 Amendments to STCW 1978	1625-AA16	
35	FR	Dry Cargo Residue Discharges in the Great Lakes	1625-AA89	2004-19621
36	FR	Requirements for Notices of Arrival and Departure, and AIS	1625-AA99	2005-21869
37	FR	TWIC Card Reader Requirements	1625-AB21	2007-28915
38	FR	Harmonization of Lifesaving Equipment & Production Testing	1625-AB46	
39	FR	Waiver of Citizenship Req. for Commercial Fishing Vessels	1625-AB98	2012-0866
40	FR	Offshore Supply Vessels of at Least 6000 GT ITC	1625-AB62	
41	IR	Revision to (TWIC) Requirements for Mariners	1625-AB80	
42	IR	Commercial Fishing Vessels: Implement 2010 & '12 Legislation	1625-AB85	2012-0025
43	NPRM	Changes to the Inland Navigation Rules of the Road	1625-AB88	
44	IR	2012 Liquid Chemical Categorization Updates	1625-AB94	2013-0423
45	FR	Waiver: Citizenship for Crew on Commercial Fishing Vessels	1625-AB98	2012-0866
46	SNPRM	Inspection of Towing Vessels	1625-AB06	2006-24412
47	NPRM	Inland Waterways Navigation Regulations	1625-AB84	2000-7080
48	FR	Great Lakes Pilotage Rates 2014 Annual Review & Adjustment	1625-AB89	0534-0001
49	FR	Adding (IEE) Certificate to List of Class Certificates	1625-AB90	2012-0861
50	FR	Inland Waterways Navigation Regulations; Sacramento, CA	1625-AB95	2003-16158
51	IBR	Updates to ASTM; Technical Amendment (USCG-2012-0866)	1625-AB98	2012-0866
52	PP	Safety Zone Regulations	1625-AA00	2003-16158
53	PP	Special Anchorage Areas/Anchorage Grounds Regulations	1625-AA01	2000-7080
54	NOI	Discharge-Removal Equipment for Vessels Carrying Oil	1625-AA02	2011-0430
55	PP	Regatta and Marine Parade Regulations	1625-AA08	2000-7080
56	PP	Drawbridge Regulations	1625-AA09	2003-16158
57	IR	Regulated Navigation Areas	1625-AA11	
58	NOA	Marine Facility Response Plans for Hazardous Substances	1625-AA12	1999-5705
59	NOA	Tank Vessel Response Plans for Hazardous Substances	1625-AC02	2013-0263
60	SNPRM	Numbering of Undocumented Barges	1625-AA16	1998-3798
61	NPRM	Vessel Documentation User Fees--Annual Renewal Fee	1625-AA89	
62	NPRM	MARPOL Annex 1 Update	1625-AA99	2010-0194
63	NPRM	Amendments to Chemical Testing Requirements	1625-AB58	2010-1064
64	NPRM	Harmonization of Standards for Fire Protection Equipment	1625-AB59	
65	NPRM	Info. Collection: MTSA-Regulated Facilities Handling Chemicals	1625-AB64	2012-0866
66	IR	Implementation of MARPOL Annex V Amendments	1625-AB97	2003-16158
67	NPRM	Marine Casualty Reporting on the Outer Continental Shelf	1625-AB99	2013-0500
68	FR	Amendments to 33 CFR Part 177 (OR/WA Bar Crossing Regs)	1625-AC01	2013-0216

FR: Final Rule / *IR:* Interim Rule / *NPRM:* Notice of Public Rulemaking / *ANPRM:* Advanced Notice of Public Rulemaking / *PP:* Preliminary Plan / *SNPRM:* Supplemental Notice of Public Rulemaking / *IBR:* Incorporation by Reference / *NOI:* Notice of Intent.

This issue of *MarineNews*, in part, also focuses on regulatory issues and compliance. As it turns out, it really doesn't matter where you sit on the waterfront – in the terminal, port authority, OEM manufacturer, training entity, on board the vessel or in the boardroom itself – you've got something to worry about. Access the full set of rulemaking efforts, and expanded views of each by clicking: http://www.uscg.mil/hq/cg5/cg523/projects.asp.

Dennis L. Bryant

Bryant's Maritime Consulting

Dennis L. Bryant retired from the U.S. Coast Guard with the rank of Captain after 27 years active duty. His billets included serving on the icebreaker NORTHWIND for several years including in 1969 when it escorted the tanker MANHATTAN through the Northwest Passage (this was back in the old days, when there was real ice in the Arctic). He also spent various tours as a law specialist, including an assignment as the Coast Guard's Law of the Sea officer. He also served a tour in the Office of International Affairs and finished his career supervising the staff charged with implementing the Oil Pollution Act of 1990 (OPA 90). After leaving the Coast Guard, he was with a major maritime law firm for 13 years. Now an independent consultant, and when not guiding his clients in navigating the complicated world of regulatory compliance, he also speaks at various forums, both domestically and internationally. His blog on recent maritime developments is always well received on the Maritime Professional web site as well as his own venue. Dennis also frequently writes maritime-related articles for various trade magazines and his work is frequently quoted by the trade press.

This month in *MarineNews*, we explore the current regulatory and compliance environment facing domestic maritime industry, as well as every foreign-based marine entity that hopes to do business with a country that transports 95 percent of what it consumes on the water. To that end, there is arguably no better qualified expert on the full breadth of maritime regulatory issues than is Dennis Bryant. He weighs in this month on a raft of different questions and quickly distills down to the lowest common denominator, some of the prickliest challenges facing both the commercial sectors and also the regulators themselves. We started out by asking him to comment on five specific rulemaking efforts. Listen in as he gives his unvarnished take on all of it:

Subchapter M (The Coast Guard's effort to establish safety regulations governing the inspection, standards, and safety management systems of towing vessels):

The move to convert the U.S. towboat sector from uninspected to inspected was initiated by the towboat sector itself, which wanted to get out from under the thumb of the Occupational Safety & Health Administration (OSHA). The conversion turned out to be more complex than they envisioned. In addition, it quickly became clear that the Coast Guard lacked the manpower to conduct all these inspections in the same manner as it did with the blue-water fleet. Thus, a new paradigm has been crafted with private sector inspectors working under USCG standards. The final regulation is expected to be promulgated in 2014. Only time will tell how this new system works out.

Defy Fluid Dynamics

24-Hour Emergency Parts and Service

Water can be a powerful force, especially when it has a little help from wind, gravity or the ebb and flow of tides. Fortunately, Louisiana Cat offers a full range of marine engines to help you push back.

Equally important, our technicians and salesmen comprehend fluid dynamics as well as they understand engine maintenance and service. That means we can help you spec the perfect Cat® or MaK marine engine for your application … whether you're pushing a barge upstream on the Mississippi, crossing the Atlantic or powering an on-board generator.

All the while, Louisiana Cat is behind you with:

- 24-hour emergency parts and service
- Dockside trials
- Performance analysis reports
- Preventive maintenance programs
- Electronic diagnostics
- Factory trained technicians
- Fully equipped facilities
- Factory authorized warranty repairs

Stop by one of our many locations or go to www.LouisianaCat.com to learn more about our Cat and MaK products and services.

866-843-7440

Louisiana CAT

www.LouisianaCat.com

Non-Tank Vessel Response Plan regulations:

The NTVRP final rule was published on 30 September 2013. Covered vessels (nontank vessels of 400 GT and over) must submit oil spill response plans to the Coast Guard by 30 January 2014. Larger nontank vessels must enter into contracts with response providers, while smaller nontank vessels are only required to identify response providers (with the written permission of the response provider to be so identified). Many nontank vessels started the planning process several years ago based on USCG nonbinding guidance. Now it's time for everyone to join in. Experience with tank vessels has shown that proper planning reduces both the frequency and volume of oil spills.

OPA 90 Salvage Marine Fire Fighting (SMFF) rules:

The salvage and marine firefighting final rule was published on 31 December 2008. Initially, it applied only to tank vessels and implementation went smoothly. The new NTVRP rule incorporates the salvage and marine firefighting requirements, so covered nontank vessels must also plan for these issues. I foresee some difficulty here as many of the nontank vessels (particularly those at the lower end of the size limit and some of the older foreign vessels) may not have at hand all of the resources required, such as accurate, current, and detailed ship plans.

Ballast Water Regulations (IMO / USCG):

The ballast water management system process received a major boost when first New York and most recently California backed down from their requirements for unique and impossible standards. Effectively, there are now just two standards in play: the IMO standard and the US standard. The IMO standard has not officially come into force yet, but is being used for installation of equipment on new ships worldwide. The US standard, which is a more stringent version of the IMO standard, is in effect, but no BWMS has yet been certified as meeting the requirements. In the meantime, the USCG is granting 5-year waivers for vessels that utilize the IMO standard.

Transportation Workers Identification Credential (TWIC):

An unmitigated disaster. The US Congress mandated this system in 2002, in reaction to the terrorist attacks of 11 September 2001. Rather than just say that security on ves-

Coastguardsman examining a TWIC credential.

sels had to be tightened and leaving it to the professionals to determine how, Congress directed a biometric solution and (in a backdoor process) mandated various details of the credential. The Transportation Security Administration (TSA), burdened with high-priority aviation security issues, did not focus sufficiently on execution of TWIC process, attempting to utilize leading-edge and untried technology.

A primary focus of DHS and the U.S. Coast Guard is to get regulations passed in a timely fashion. The Coast Guard's Assistant Commandant for Prevention Policy, RADM Joseph Servidio, recently admitted to a backlog of some 68 projects (rulemaking efforts) that would still be in play by the end of this calendar year. Do they have too much on their plates? Is there a more efficient way to get things done?

The rulemaking process could be advanced slightly if OMB did not take so long to process draft rules. Speaking from experience, the process is complex. The Coast Guard works hard to get the rules right because it knows that those rules will have a significant impact on the regulated community.

A recent study (shown in the October edition of MarineNews) compared a particular aspect of minimally regulated commercial fishing vessels (CFVs) and their highly regulated small passenger vessels (SPVs) of 100 tons or less. The study revealed that random testing not only reduces the potential for marine casualties, but also enhances the safety of the maritime transportation industry. Is there a particular reason why one sector of the domestic marine industry is left out of the testing schemes while others are not?

The commercial fishing vessel industry has significantly more political power than does the small passenger vessel industry.

Does today's Coast Guard have the necessary resources – and expertise – to administer to all of its regulatory responsibilities? If not, where in the U.S. government would some of those duties best be placed?

The USCG does not have the resources to fully perform its statutory missions. The only federal agency that could relieve the USCG of any of its burdens is the National Transportation Safety Board (NTSB), which could take over marine casualty investigation, but this could only occur if the NTSB were expanded.

Are there maritime/marine/transportation responsibilities best placed with the Coast Guard that currently reside elsewhere?

None that come to mind.

What, in your opinion, is the most onerous of the new regulations coming down the pike (or already here) for industry? Which one ranks as the least useful or sensible? Which will yield the greatest dividends (and original intent) for those who ultimately shaped the rules?

The biggest problem is not with the regulations; the problem is with the statutes. Congress keeps grafting new mandates onto old regimes, often in reaction to some newsworthy event. A prime example is OPA 90, which mandated double hull tankers. There is nothing wrong with double hulls, but Congress should not be mandating a particular solution. Rather, it should mandate a standard and leave it to the professionals to work out the details. At the least, Congress should have said that all new tankers must adopt either double hulls or their equivalent, leaving it to the Coast Guard to determine what is equivalent. As it is, Congress has stifled innovation. No one is going to design an alternative hull for tankers knowing that if such a ship were built it could not trade to the United States.

ASD Tug Construction Underway at Signet

Construction of Signet Maritime's seventh ASD tug in less than four years, M/V SIGNET VIGILANT, is underway at Signet Shipbuilding & Repair in Pascagoula, Mississippi. The 30 metric ton bollard pull, EPA Tier III, ASD vessel will be the first Castleman Maritime design for Signet with delivery slated for July 2014. The new tug will operate from Signet's International Operations Center in Ingleside, Texas where it will perform rig escort, ship, and barge assist work. The design and size will allow Signet operators improved capabilities and maneuverability to assist marine vessels in tight quarters in the shallow depth inland waterways. The environmentally friendly tug will have lower emissions and reduced fuel consumption to meet EPA Tier III marine emission regulations. Signet currently operates 32 vessels providing marine transportation and logistics services and is expanding their fleet to meet the growing demand from the flurry of activity along the Texas Gulf Coast.

SIGNET VIGILANT at a glance ...

LOA: 72 feet	Azimuth Propulsion:2x Rolls Royce US 155 P12-FP	Bow Winch: Markey DEPC-32
Beam: 28 feet	Engines: 2 x MTU Model 8V-4000 M54 Tier III	Engine Rating: 1200 BHP @ 1800rpm
Bollard pull: 30m/t	Hawser Capacity: 525 feet of 6.5-inch synthetic	Stern Winch: 2 Patterson WWP40E 40t

F/V Arctic Prowler
Christened in Ketchikan

Alaska Longline, LLC, and Alaska Ship & Drydock (ASD) christen the F/V Arctic Prowler, a new 136 foot freezer longliner, in October at the Ketchikan Shipyard in Ketchikan, AK. The Arctic Prowler is the first large commercial fishing vessel built in Alaska. The new vessel has 16,300 cubic feet of freezer space, the ability to both catch and process at sea, and the capability of fishing 56,000 hooks per day. The Arctic Prowler is designed and built with an emphasis on economic use of space allowing room for state of the art fishing and factory equipment producing very high quality products. Freezer capacity is ample as is fuel capacity allowing extended fishing voyages. Design criteria include comfortable crew accommodations necessitated by extended range of the vessel. Fishing and factory equipment selection were based on the owner's extensive experience in Bering Sea fisheries. Built by ASD, the Arctic Prowler is also the first vessel to be constructed in the Ketchikan Shipyard's new 70,000-square foot assembly and production hall.

First contract for newly designed

Damen Offshore Carrier 7500

Van Oord has ordered a new cable-laying vessel. The ship will be built at Damen Shipyards Galati in Romania and will be completed at the end of 2014. The vessel is intended for the installation of electricity cables for offshore wind farms. Van Oord is making preparations for the Gemini offshore wind farm which will be constructed 60 kilometers to the north of the Dutch Wadden Islands. The cable-laying vessel will be deployed at that site, among many others. The vessel will be a multipurpose vessel with a length of 120 meters, a beam of 28 meters and a dynamic positioning system. It will be equipped with a cable carousel of more than 5,000 tonnes and a heavy crane that will enable it to lay heavy and long export cables. On board, 90 people can be accommodated. The new Van Oord cable layer is based on the Damen Offshore Carrier, a new multipurpose vessel design with a flush working deck, Heavy Lift or RoRo transport as well as offshore installation capabilities suitable for multiple markets. To this purpose, a large volume of (offshore) installation equipment can be mounted on the vessel and the design can be adapted to create a dedicated ship, such as the vessel desired by Van Oord.

Leevac Shipyards Delivers
New Tug Bay-Houston Towing

LEEVAC Shipyards, LLC recently delivered the first of two (2) Z-Tech 2400 harbor tug boats, the Chloe K to Bay-Houston Towing Co. Constructed at LEEVAC Shipyard Jennings, LLC and later transported, via one of LEEVAC's own dry-docks, to LEEVAC Shipyard Lake Charles, LLC facility, the Chloe K received her final outfitting, commissioning, and testing in Lake Charles.

The Robert Allan designed Z-Tech 2400 harbor tug at a glance:

LOA: 80 feet	Drives: Model SRP-1215 Schottel
Beam: 38 foot	Bollard Pull: 60 M/T
Draft: 16 feet	Bow Winch: Markey #DEPCF-48S Escort
Engines: 2x Caterpillar's 3516C HD	Winch brake capacity: 330,000 pounds
Horsepower: 2,575 horsepower (each).	Gensets: 2x John Deere 6068TFM76-ABS-T2

Rolls-Royce & GPA
Combine on PSV Solution

Rolls-Royce and Guido Perla and Associates, Inc. (GPA) collaborative efforts are delivering results for customers in North America. Rolls-Royce and GPA most recently teamed up to provide a highly innovative design and power & propulsion systems integration solution for two PSVs for Jackson Offshore Operators. Delivery of the first two GPA 675J PSVs, currently under construction at BAE Systems' shipyard in Jacksonville, Florida, will be made in 2014. The option for two additional vessels of the same type was exercised earlier this year. GPA handled the overall design, regulatory and class approval, and production engineering, while Rolls-Royce is delivering the power and propulsion system equipment and complete systems integration on each vessel. The Rolls-Royce scope of supply includes Azipull propulsion thrusters, tunnel thrusters and a Low-Voltage Active Front End Diesel Electric Power System and complete systems integration courtesy of an advanced Acon automation system, an Icon Dynamic Positioning (DP-2) system as well as "start-to-finish" project management including on-site advisory services, planning and commissioning. The fundamental approach of bringing owner, shipyard, designer, and systems integrator to the table early in the planning effort is a core principle of GPA's design approach, thus maximizing value to its clients and partners.

The Jensen Marine "HandySize" Class Tug

In a Class All its Own

Designed by Jensen Naval Architects and Marine Engineers, and built by the Great Lakes Shipyard of Cleveland, Ohio a 74-foot workboat is quickly making a name for itself; in and out of the water. The "HandySize" Class Tug was designed to fill the niche between the 2,400 to 3,200 HP market for harbor workboats, fireboats, and construction operations and coastal towing, too. The Tug model 2800 is powered by two Cummins QSK38,1400HP diesel engines rated at 1800 rpm, providing a total of 2,800 HP – or in order words, just right for those niche tasks assigned to a Great Lakes workboat.

Built to American Bureau of Shipping (ABS) standards, the vessel's 30 foot beam, and 11.5 foot draft combines with a robust speed of 12.0 knots and bollard pull of 45 metric tons to add to its popularity. Built to last and easy to operate, the ABS "ice class" tug hull incorporates more steel thickness and tighter framing in the bow and stern, ensuring increased normal statutory life. Designed specifically for a two-man operation, bridge control of engine room and deck winches is standard. The Cummins QSK38 engines provide increased fuel efficiency, and lower maintenance costs.

Because the "HandySize" Tugs are smaller in weight and size, no loadline certificate is needed, and only one licensed operator is required. The crew does not need to hold AB and OS ratings, or Merchant Marine Documents. This helps with future crew shortages along with increased wages, and benefit costs.

Environmentally Sound Engineering

This "green" class tug reduces air emissions, and other environmental toxins. One unique feature is that no ballast water, or sewage water is discharged from the tug. Its Cummins propulsion engines meet current U.S EPA Tier II and EU Stage IIIA emissions regulations. Other notable particulars are many:

Engines: The " HandySize" Class Tug combines the new-

est technologies with the solid fundamentals of shipbuilding. The choice of the Cummins OSK38-M1400 marine diesel engine fits well as the centerpiece of its propulsion system. The 4 stroke continuous duty diesel with a displacement of 37.9L has an engine base made of components from other Cummins marine engines, including a new cast-iron, ductile single-piece piston with nitride-coated rings and hardened cylinder liner. The fuel system is complimented by a Modular Common Rail Fuel System (MCRS) featuring a simplified design which provides constant high injection pressure regardless of engine speed or load condition. The benefits to this design include low noise and vibration for quiet operation, idle stability and improved low-end torque. The dry weight of the engine is a maximum 12,015 lbs (5,450 kg).

Propellers: Two 72" diameter x 75" pitch Kaplan-type 4-blade, Rice "Aqualloy" propellers, inside Type 37, stainless steel lined, Kort nozzles manufactured by Custom Nozzle Fabricators. The gearing consists of Two Twin Disc MG540 gears having 5.17:1 ratio with a continuous duty rating of 1557 HP.

Air Compressors: One small air compressor for "shop" service.

Engine Cooling: The Main Engines and gears are cooled using Duramax Marine "Duracooler" keel coolers. The Auxiliary Engines are cooled by raw water pumps engine mounted through heat exchangers mounted to the engines. Cooling waterfor the AC unit(s) is supplied from the sea chest crossover.

Oily Water Separator: One Heli-Sep Model 500, for use with 300 gallon waste oil storage tank.

Off-ship Fire-fighting (OPTION): A single monitor, with a nominal capacity of 2,000 gpm, fitted forward for fighting off-ship fires was furnished and installed by the Builder. Seawater for the monitor shall be supplied by a dedicated sea water pump driven by at PTO off one of the diesel generators.

Aft Towing Winch (OPTION): The Aft Towing Winch is a Jon-Rie Intertech Series 500, with a capacity of 2000-ft of 1 3/4"diameter wire that produces a line pull of 70,000 lbs., a line speed of 30 FPM and a brake holding force of 265,000 lbs.

Hawser Winch (OPTION): As an Option, Great Lakes Shipyard offers a Jon-Rie Intertech Series 230, powered using the same HPU as the aft towing winch. The winch has the capacity to spool 450' of 7" synthetic hawser and will produce a line pull of 28,000 lbs, a line speed of approximately 50 FPM and a brake holding force of 430,000 lbs.

Crane (OPTION): As an Option, Great Lakes Shipyard offers an ESI Marine Crane Model T-045M/3S, powered using the same HPU as the aft towing winch.

In addition, the tug has a low profile pilothouse with 360 degree visibility which permits it to maneuver under the sheer of container ships, and in the bow and stern of areas of the vessel.

Currently, "Handysize" Class harbor tugs are operating and providing harbor service in San Juan, Puerto Rico and San Pedro

Sula, Honduras, Central America. The tug is used for harbor assist in Puerto Cortez, a principal port in Northern Honduras.

Great Lakes Group: Impact, Reach & Endurance, too.

The Great Lakes Group is a maritime story unto itself. The Company is more widely known just as "The Towing Company." Founded by oil magnate John D. Rockefeller, the Company is now celebrating its 115th year in continuous business. Not so widely known is that "The Towing Company" is a full-service marine transportation company – actually a "Group" of companies engaged in marine-related businesses operating on the East, Gulf, and West Coasts of the United States, as well as in Puerto Rico, in the islands of the Caribbean, and internationally. The Group of Companies also includes: Tugz International LLC, specializing in vessel design, building and chartering; Admiral Towing & Barge Company, primarily engaged in government operations; Soo Line Handling Services, Inc., providing line handling services at the US Army Corps of Engineers at the Soo Locks, Sault Ste. Marie, Michigan; Puerto Rico Towing & Barge Co., engaged in marine transportation services in San Juan, Puerto Rico and the islands of the Caribbean.

The " HandySize" tug has provided an additional benefit high paying skilled jobs. It is estimated that the economic ripple effect to Ohio businesses from the building of the tugs and additional shipyard activities is conservatively estimated at $0.52 from every revenue $1.00 the company receives. From a national view, the economic ripple effect to other businesses and communities is conservatively estimated at $0.39 from every revenue $1.00 the Company receives. Understandably, The Great Lakes Group is optimistic about the future of HandySize class tug, and the future of the maritime industry serving the Great Lakes. www.thegreatlakesgroup.com

Work, Rest & Documentation

The Maritime Labor Convention of 2006 (MLC 2006) is now in force – although not here in the United States. How much different is what happens on MLC compliant ships from what transpires on U.S.-based, domestic workboats?

By (Captain) Jeff Cowan

The Maritime Labor Convention of 2006 (MLC 2006) came into effect on 20 August 2013. Globally, the new rule impacts many aspects of how seafarers are treated, working conditions and a myriad of less well defined requirements that leave some operators scratching their heads to figure out. The United States has not ratified the Code and probably never will. That doesn't mean that we don't have work and rest rules under U.S. law, as well. We do.

Regulation 2.3 of the new MLC Code also delineates hours of rest and work for mariners. This type of regulation which mandates rest requirements is not new, but it may nevertheless change how vessels are manned, given the extra scrutiny that will now ensue. For those watching from the cheap seats in "unaffected" domestic inland, coastal and workboat trades, what unfolds next is worth watching.

Apples & Oranges: Work Limits & Rest Hour Minimums

It is funny (or, perhaps not) how references to work hour limits have been replaced with rest hour minimums (both are mentioned in separate but closely aligned paragraphs; Standard A2.3 paragraph 5a and 5b). In doing the math, a seafarer could be limited to 72 hours of work in paragraph 5a, but in paragraph 5b, the seafarer must have a minimum of 77 hours rest in a week but could work 91 hours which may be why companies follow Standard 2.3 paragraph 5.b.

According to paragraph 12, seafarers shall receive a copy of their daily rest hours which shall be endorsed by the Master, or by a person authorized by the Master and signed by the seafarer. There is no excuse for a seafarer not getting rest, because everyone of competent authority signed the sheet verifying knowledge of the seafarers rest hours.

Real Life: Actual Practice

Recently, an associate, while aboard a ship and speaking with the Master, asked to see the rest log. Everyone in the crew had exactly the same legal hours of rest and work. Upon further investigation of the logbooks, the reviewer discovered the whole engine department was resting while taking bunkers (fuel used for ships propulsion and auxiliary machinery). Having sailed for 35 years, I only heard of this type operation once where the deck department loaded bunkers aboard a tanker. The ship in question was not a tanker, but a bulk carrier.

After speaking with the Master regarding the anomaly, the Master admitted to falsifying the rest records. On a charter ship, in this instance, the operating expenses and crew costs were fixed, meaning they absolutely could not go over budget but the crew still had jobs to perform while making the most money possible for the company. The ship's Master, wanting to make it most equitable for his crew, minimized work hours to legal limits on paper, even if the rest data showed they were resting in the middle of work hours (i.e. bunkering). Obviously, the crew acquiesced by personally signing the rest log, necessary to protect their jobs because they have families to feed and house.

In another incident which further illustrates the problem, while reactivating a ship and trying to make the deadline for berth availability, a crew was working long hours taking care of the many problems of bringing a dead ship out of lay up while also making schedule. As part of the breakout procedures, the ship required an International Ship Management (ISM) certificate titled "Shipboard Management Certificate" (SMC), as well as the Document of Compliance (DOC). This entailed having an ISM audit while bringing the ship out of layup. These audits include interviews with crew members from various ship departments; Deck, Engine and Steward. In this instance, most of the crewmembers were not that familiar with their breakout ship and the interviews took much longer than expected. Because of this, the final meeting with the ship management team (Master, Chief Engineer, Chief Mate, First Assistant and Steward) was held at 2200 hours. Most likely, the team had been up since 0600 hours and didn't stop for any rest during the day. In this instance, would the MLC 2006 have held sway? Could that ship have stayed alongside to allow crew sufficient rest before getting underway at 0300 hours without the ship's Master suffering the company's ire and becoming unemployed?

The maritime industry, with its "can do" spirit would have seen that ship sail at 0300. In other words, it is okay to trouble the crew during rest periods if an official piece of paper is involved because the MLC 2006 is waived. Right?

Parallel Universe

Our counterparts who fall under the Federal Aviation Authority (FAA) would have stayed on the ground. According to the FAA, an airline pilot needs a 10-hour minimum rest period. The rule sets a 10-hour minimum rest period prior to the flight duty period. The rule also mandates that a pilot must have an opportunity for eight hours of uninterrupted sleep within the 10-hour rest period. Could the ship Master described in the previous paragraph comply with the sample FAA ruling? Absolutely not.

A final example involves some boats of less than 1600 gross tons involved in international trade may only carry one engineer. The boat in question has a Safe Manning Certificate issued by a competent authority that states only one licensed engineer is required aboard the boat. Alas, due to the lack of technical engineering personnel aboard this boat, most of the repairs are performed by shore based entities while the boat is in port. Typically, these repairs are supervised by the boat's engineer because that engineer will ultimately have to live with any outcome. The repairs occur at all hours due to berth scheduling. Our engineer has been up without a "rest period" for 15 hours. When questioned upon his lack of rest, the engineer stated, "When the boat is tied up, I am considered a shore based engineer so the rest rules do not apply." Considering when the boat lets go and proceeds to its next berth, and when our engineer will be required to work, will the Port State Control tasked with enforcing the MLC 2006 put an end to this practice? That answer may be as unclear as some of the other provisions of the code which are largely left open to interpretation.

Effective Manning Practices

Effective manning is, as it turns out, more than a "catch phrase". One shipping company representative stated, "You could have 40 crewmembers aboard ship and still have fatigue problems, because it comes down to fatigue management." Given that the norm for crewing most ships now is 20 versus the hypothetical 40 crew, who will be called to replace an individual due to lack of rest when there is no one to replace our fatigued crewman?

Nominally, it is fine to increase crew size, but under the present monetary compensation system, increasing crew size means someone is going to make less money. On charter ships, as in the first example, the crew will make less money collectively if more crew signed on. The easy answer is to increase rates to provide for the increased crew or suffer the cost of a detained ship. Which is cheaper?

Some company ships have added a line to the Rest hour sheets and others to the overtime sheets attesting to the fact that the crewman has followed the MLC 2006 rest requirements. Typically, this notation is positioned immediately next to the signature line. A crewman signing on the line certifies compliance with the Rest Requirements or faces dismissal. If the crewman puts in the hours actually worked or doesn't rest and is not in compliance with MLC, then that crewman will lose his job. Hence, it is more than likely that seafarers are being coerced into falsifying the work/rest logs. Those companies that do – as was discovered by our ship inspector as previously described – are trying to skirt the MLC 2006 treaty and thereby enjoy a competitive advantage by not hiring more crew to allow more rest and avert causalities due to fatigue. Crew advocacy groups have advised crewmen to sign the sheets only after striking the attestation clause.

Cause & Correction: Will MLC provide the panacea?

Human error is responsible for over 58 percent of all ship casualties and fatigue represents the largest portion of human error for major claims according to a Protection and Indemnity Club. That's a fact. How can fatigue be reduced? It is simple, really: by using the MLC (2006) Code to effectively enforce its mandates equally and unilaterally and getting experienced Port State Control inspectors who are able to understand operations and decipher the "gun decking"(falsification of records) on rest logs. Unless the MLC is enforced unilaterally throughout international trading fleets, there will remain a competitive advantage for those who gun deck the rest logs. The practice also defeats the ultimate goal(s) of MLC and OPA 90 itself, some of which include fair treatment of seafarers and the provision of a safe workplace for all.

The Oil Pollution Act of 1990 (OPA 90) : "On a tanker, a licensed individual or seaman may not be permitted to work more than 15 hours in any 24 hour period, or more than 36 hours in any 72-hour period, except in an emergency or a drill. In this subsection, "work" includes any administrative duties associated with the vessel whether performed on board the vessel or onshore." If a crewman works 15 hours in one day that crewman must have the compensatory rest period off in order to attain the 36 hours of rest in a 72 hour period. The Issue: Who is going to perform the crewman's work while our crewman is resting per OPA 90 minimum rest requirements? Given the limited number of crew available and aboard vessels trading in domestic U.S. waters, who is left to pick up the load?

From this side of the pond – and whether adhering to MLC (2006) or OPA 90 rest rules – there are lessons to be learned. The practice of fudging work and rest logs isn't unique to any one sector of the marine world, flag or nationality. Nor should it be tolerated.

Shallow Federal Policies Produce Even Shallower AIWW Drafts

The Atlantic Intracoastal Waterway awaits the chance to rescue the crowded eastern seaboard with a readymade alternative to the parking lot known simply as I-95.

By Joseph Keefe

The Atlantic Intracoastal Waterway (AIWW) extends 1,200 miles from Norfolk, VA to Key West, FL. That much is common knowledge. What you may not know is that the U.S. Congress authorized the creation of the AIWW in 1919 and the entire waterway was completed in 1940. Consisting of natural inlets, salt-water rivers, bays, and sounds; others are man-made canals, the canal is included on the National Register of Historic Places and is designated a National Civil Engineering Landmark. Nevertheless, the waterway's potential to become a key piece of the nation's intermodal equation is largely being wasted due to federal indifference, poorly designed policies and shoaling that threatens even basic navigation in critical locations along its length.

A key voice of the Waterway is the Atlantic Intracoastal Waterway Association (AIWA) which represents the interests of commercial and recreational users of the waterway. AIWA is the only organization dedicated to ensuring the future of the AIWW and its members notably hail from 39 states and Canada and include both commercial and recreational users. At the recent National Waterways Conference held in Savannah, GA, AIWA Executive director Brad Pickel brought industry stakeholders up to speed on the condition of the AIWW, its future and also gave them a primer on what it could become. ***Bottom line:*** it's not all bad news, but it is definitely an unfinished work in progress.

November 2013: SITREP AIWW

The U.S. Army Corps of engineers (USACE) is responsible for maintaining the AIWW. That's about where their involvement ends, however, since there is little enough money for higher profile projects – like, for example, the Olmsted Locks & Dams – never mind finding cash to dredge a waterway that has, up until now, little to show for itself in terms of ton-miles for cargo.

The AIWW serves Virginia, North Carolina, South Carolina, Georgia and Florida. Over time, the Waterway has proven itself valuable for commercial, military, recreational and dredging industry traffic, generating billions of dollars of commercial, recreational and personal income annually. While the authorized depth for most of the AIWW is 12 feet, there are areas that can be as low as 2.5 feet, creating serious navigation safety issues. The lack of maintenance dredging has therefore hindered growth of commercial traffic on the Waterway, and deterred those who might consider it viable alternative to rail or trucks to bypass it altogether.

While the USACE is, in theory, responsible for maintaining the AIWW, it also receives its annual funding from the Energy and Water Development Appropriations subcommittee. That federal budget process gives priority is to inland waterways based on the amount of cargo carried annually on barges. The Corps maintains the annual Waterborne Commerce Statistics database that is the documentation the Office of Management and Budget (OMB) uses to develop the President's budget. But, OMB does not take into consideration is the many other vessels that use and rely on the AIWW. Commercial fishing vessels, sport fishing vessels, recreational vessels, National Oceanic and Atmospheric Administration (NOAA) vessels, US Department of Energy contracted vessels, research vessels and dredging vessels are not documented. The resultant budget is inadequate, causes major shoaling problems and exacerbates an already bad situation.

Commercial AIWW users pay a fuel tax to the Inland

Clean Air Summary of Emissions

	Emissions (grams/ton-mile)			
	HC Hydrocarbon	CO Carbon Monoxide	NOx Nitrogen Oxides	PM Particulate Matter
Inland Towing	0.01737	0.04621	0.46907	0.01164
Eastern Rail	0.02419	0.06434	0.65312	0.01624
Western Rail	0.02423	0.06445	0.65423	0.01621
Truck	0.020	0.136	0.732	0.018

Grams per Ton-Mile (National Waterways Foundation)

Waterway Trust Fund (IWTF). The trust fund is used to supplement federal funding for major lock rehabilitation and construction projects on inland waterways. Current legislation doesn't allow any of the funds to be used for maintenance projects and since Corps projects on the AIWW require maintenance funds they are not eligible to receive funds from the IWTF. Funding for navigable waters is calculated by ton miles. And because at present, the AIWW is considered to be a low use waterway, it isn't eligible for much in the way of help. To be fair, North Carolina has seen $1.89 million, but no other AIWW state.

Finally, the Intracoastal Waterway is also used extensively by recreational boaters. Studies have shown that recreational boaters bring millions, and in the case of Florida, billions of dollars to state budgets. The waterway is also a safe navigation channel used by vessels not equipped for ocean travel or for when weather conditions make the ocean too rough to travel.

The Environment

Even the most vociferous opponents of increased spending on the AIWW would have to concede that the most energy-efficient way to move commodities such as coal, grain, iron, steel, aggregates, petroleum and chemical products is to use the nation's navigable rivers. Barges can move one ton of cargo 576 miles per gallon of fuel. A rail car would move the same ton of cargo 413 miles, and a truck only 155 miles. The Table shown shown to the left amply demonstrates this fact.

Economics

Even at current depths, the value of the AIWW is easy to calculate. To get a perspective of what it could produce if properly dredged, consider that a 2006 North Carolina Report to the North Carolina Sea Grant Program, the North Carolina Department of Environment and Natural Resources (NCDENR) (among others) on the Economic Impacts and Economic Benefits of Recreational Boating Along the Atlantic Intracoastal Waterway (AIWW) in North Carolina showed that the AIWW produces $257 million in annual sales, over 4,000 jobs, $124 million in wages, $35.6 Million in federal taxes and fees and $21.4 million in state taxes and fees. A similar survey in Georgia claims $33 million is total revenue generated by the

While the authorized depth for most of the AIWW is 12 feet, there are areas that can be as low as 2.5 feet, creating serious navigation safety issues. The lack of maintenance dredging has therefore hindered growth of commercial traffic on the Waterway, and deterred those who might consider it viable alternative to rail or trucks to bypass it altogether.

AIWA Executive Director Brad Pickel

AIWW and the economic impact in Florida alone is a staggering $18 Billion in total economic output.

Lurking untapped just a few miles to the West are the untold hundreds of thousands of trucks and rail cars moving cargo north to south and back along clogged interstate highways and railways that crawl along at an average of 9 miles per hour along congested intermodal hubs.

Growing Advocacy

The Atlantic Intracoastal Waterway Association (AIWA) represents the interests of commercial and recreational users of the waterway. The only organization dedicated to ensuring the future of the AIWW, its members hail from 39 states and Canada and include both commercial and recreational users. Over time, the association has accomplished much but still has a long way to go in order to ensure that the Waterway fulfills the original vision of its creators. Already, AIWA Leaders have successfully:

- *Lobbied Members of Congress annually to increase maintenance funding for all segments of the Waterway. Georgia is receiving maintenance dredging funds for the first time in 7 years and the funding of a regional dredged material management plan for the Waterway has begun.*
- *Drafted legislation for a Federal dedicated funding source for the Waterway from existing user tax revenues. This legislation has been submitted to the appropriate Congressional committees.*
- *Added an average of $8 million to federal budget for AIWW dredging.*
- *Established the Congressional Waterway Caucus.*
- *Worked with the five Waterway states to increase their participation in this joint Federal/State project. This has resulted in North Carolina and Georgia initiating economic studies of their portions of the Waterway. Florida and North Carolina are providing funds to support Federal maintenance dredging of the Waterway while Georgia is considering the same.*

Today, the Association is working to:

- *Create a federal dedicated funding source for waterway maintenance.*
- *Recover gas tax fees paid for by commercial users of the waterway that are being spent elsewhere.*
- *Advocate for increased partnership funding by the waterway states.*
- *Develop economic studies in South Carolina and Georgia.*
- *Advocate for better data collection on the use and economic activity of the waterway.*
- *Continue to promote, market and communicate with all organizations and communities about the critical importance of the waterway.*

Chicken and Egg

The Intracoastal Waterway has a good deal of commercial activity; products shipped include fuel oil, gasoline, asphalt, fertilizers, chemicals, wood chips, wood, limestone, sand, gravel, iron, steel, slag, lime, fabricated metal prod-

Underway and pushing on the Atlantic Intracoastal Waterway

ucts, soybeans, vegetables, produce, and electrical machinery. It could have more. For example, the AIWA counts among its membership dozens of entities, including a number of marine operators, tug and barge companies, shippers and shipyards, too.

Members include (among many others) Stevens Towing (the largest volume AIWW shipper), Colonial Group Inc., Colonna's Shipyard, Inc., Cross State Towing Co., Dann Marine Towing, LLC, Ellicott Dredge, Express Marine, McDonough Marine, Cottrell Contracting Corporation (Dredging), Marinex Construction Co., Biblia, Inc., Southern Dredging Co., Southwind Construction Co. and W.F. Magann Corporation.

According to AIWA's Brad Pickel, there is considerable interest in expanding commercial opportunities along the Waterway, but little action owing to the benign neglect from federal authorities. Commercial users are reluctant to invest in docks, terminals and infrastructure without first knowing that the waterway will be sustained to sufficient – ***actually authorized*** – depths to support commercial traffic.

The Ultimate Marine Highway - AIWW

Ideal for high value project cargoes, heavylift cargoes and other similar traffic that can't easily go via rail or truck, the Waterway has its uses. This type of cargo also doesn't lend itself to be easily counted when it comes to anteing up for dredging funds. In terms of funding, weight is the primary factor considered by federal authorities. Says Pickel, "Other metrics need to be considered." Also according to Pickel, no complete AIW study has ever been performed. Section 218 of the WRRDA bill now in play in Congress – if it ever passes – dictates that a feasibility study be done of both GIW and AIW.

Paralleling the nation's busiest and one of its longest Interstate Highways (I-95), the possibilities are endless. For a properly dredged AIWW, and with just one barge taking the place of as many as 100 semi-trucks, the savings in reduced wear and tear and abuse on the federal highway system is reason alone to begin the effort to rehabilitate the Waterway. And, if the EPA is serious about reducing emissions and improving the air that we breathe, then the AIWW is an easy place to start that journey. Nevertheless, at the recent National Waterways Conference, a U.S. Maritime Administration official spent his time at the dais crowing about the possibilities of the so-called U.S. marine highway system and then admitted that the AIWW was not eligible for even one dollar of the "Tiger Grant" money being passed out. In the end, Marad has little to offer beyond cheerleading.

The Future

Initially set up in part as a function of National Defense (predating WWII), the AIWW has for 70 years been up and running and completely connects Norfolk, VA to Miami, FL. Future use for the Waterway, beyond its current service, could also include service to offshore East coast wind farms or oil & gas exploration, should either ever come to fruition. For now, the USACE insists that it will, in the future, do less with less. That prospect does not bode well for the AIWW. Today's federal transport policies leave the Waterway firmly aground as an afterthought in the nation's intermodal equation. And, that's just shallow.

Atlantic Intracoastal Waterway – On the WEB: www.atlintracoastal.org

U.S. Coast Guard photo by Petty Officer 3rd Class Patrick Kelley

Adjusting To Post-Macondo Safety Rules

Fleet Operators Weigh in on the New Normal

By Susan Buchanan

Even as the frenetic pace of activity shows no sign of letting up, offshore vessel owners in the Gulf of Mexico have expanded safety and environmental training, kept detailed records on those activities, and conducted self audits as they adjust to regulations adopted by the Bureau of Safety and Environmental Enforcement (BSEE) in 2011. The new rules followed – and come as a direct result of – the 2010 Deepwater Horizon explosion and spill. In October, David Barousse, general manager of Fleet Operators, Inc., explained to *MarineNews* just how the agency's Safety and Environmental Management System or SEMS has affected operations at his company in Morgan City, La. Fleet Operators owns and runs utility and supply vessels used in oil-and-gas exploration and production in the Gulf. It turns out that the 'new normal' is far different from the situation which existed in a pre-Macondo world.

BSEE: THE NEW KID ON THE BLOCK

The Bureau of Safety and Environmental Enforcement (BSEE) was formally established on October 1, 2011 as part of a major reorganization of the Department of the Interior's offshore regulatory structure. According to BSEE, the department uses the full range of authorities, policies and tools to compel safety, emergency preparedness, environmental responsibility and appropriate development and conservation of offshore oil and natural gas resources. The bureau has offices in Anchorage, AK, Camarillo, CA, and New Orleans, as well as other, smaller offices scattered along the U.S. Gulf Coast. Key functions of this agency include:

- *an offshore regulatory program that develops standards and regulations and emphasizes a culture of safety in all offshore activities;*
- *oil spill response preparation including review of industry Oil Spill Response Plans to ensure compliance*

with regulatory requirements;

• environmental enforcement with a focus on compliance by operators with all applicable environmental regulations, as well as ensuring that operators adhere to the stipulations of their approved leases, plans and permits;

• and funding scientific research to enhance the information and technology needed to build and sustain the organizational, technical and intellectual capacity within and across BSEE's key functions that keeps pace with industry technological improvements, innovates regulation and enforcement and reduces risk through systematic assessment and regulatory and enforcement actions in order to better carry out the BSEE mission.

SEMS: what it means & why

BSEE implemented offshore oil-and-gas SEMS requirements in 2011, and SEMS II went into effect in mid-June of this year. SEMS II clarified that offshore personnel, including contractors, must be trained in safety and emergency response. Operators have to make sure that contract employees understand safe-work practices before they set foot on a vessel. Contractors and operators have to document a safety and environmental plan before the contractor begins work.

"As a vessel operator focused mainly in the shallow waters of the GOM, the SEMS approved by BSEE doesn't apply to us directly in the way that it does to our clients, the lease holders," Barousse said last month. "But we do have to comply with it indirectly because we need to meet the requirements of our customers."

"We're a shallow water or Shelf operator; not a deepwater operator," Barousse explained further. "Deepwater tends to attract more formally trained and educated personnel because the vessels are larger and more technical and require greater skills. But the regulations for vessel operators are pretty much the same across the board, deep or shallow water." Today, Fleet Operators has 80 employees, including its contractors.

Under today's regulations, Fleet Operators and its oil-and-gas customers coordinate before Fleet's offshore work begins. "We have to cooperate with the leaseholder's obligation to meet BSEE's SEMS through a Bridging Agreement," Barousse said. "That requires that the client review and sign off on our health, safety and environmental programs and practices," he said, adding, "I feel that the deepwater sector, because of the nature of its business, had a head start in becoming compliant with SEMS when it became effective in 2011," Barouse said.

Hurdles to Compliance

Vessel operators on the Shelf have faced hurdles because of SEMS. In the past, many of Fleet's applicants for work had a bare minimum of safety training, he said. "Applicants trying to cross over from commercial fishing, for example, have a ton of vessel experience but have never been formally trained."

"Our class of vessels is sort of at the entry level," Barousse said. "We have to make investments in people before we even know if they're capable of doing the job because training is required before they can go offshore. We've seen cases where a new employee is fully trained and ready to start work, looked great on paper, but out on a vessel they can't perform the job. They might get seasick, not be able to handle the environment or simply not like it. When that happens, we usually lose out."

Meeting federal training requirements doesn't automatically make the person a good seaman the way experience does, Barousse said. "It's a chicken before the egg problem." The situation is starting to change for the better, however. "Now that SEMS rules have been in place for a couple of years, applicants are coming to us with most or all of the required training, often from previous employers," he said.

As part of its rules, BSEE requires oil-and-gas operators to do periodic audits of their contractors' SEMS programs. "Documentation to provide an audit trail is required now for things that were just part of doing business before," Barousse said. "We've had staff in place to track the documentation and enter it into monitoring systems via the internet. But many companies had to hire people to do that." And, that costs money. Beyond this, said Barousse, "We often hire consultants to make sure that we are on the right track, and we continuously perform self audits".

SEMS: Impact & Perceptions

Fleet Operators views SEMS as mostly positive because its employees are getting more training and their safety awareness has increased. "A couple of years ago, it meant a big increase in training," Baroussse said. "SEMS compliance is a cost of doing business. But we haven't calculated how much it has cost us overall. Now that the rules have been in place for awhile, our direct expense of getting a person ready to work is starting to level out because people are applying with most or all of the required documentation."

Fleet Operators uses internal and outside assets to satisfy its training requirements. "All of our employees go through required core training, and then quite a bit of it's on the job and refreshers," Barousse said. "People at all levels,

"We have to make investments in people before we even know if they're capable of doing the job because training is required before they can go offshore. We've seen cases where a new employee is fully trained and ready to start work, looked great on paper, but out on a vessel they can't perform the job. They might get seasick, not be able to handle the environment or simply not like it. When that happens, we usually lose out."

David Barouse, general manager of Fleet Operators, Inc.

Current Safety Management System Regulations on the OCS As They Pertain To Vessels

VESSEL TYPE	BSEE		USCG		OSHA
(Regulatory Area)	Falls within the scope of 30 CFR 250.1900-.1901 and meets the definition of "facility" in 30 CFR 250.105	Does not fall within the scope of 30 CFR 250.1900-.1901 and does not meet the definition of "facility" in 30 CFR 250.105	Meets the applicability of 33 CFR 96.110, 96.210 (i.e. self-propelled over 500 gross tons, engages on international voyages)	Does not meet the applicability of 33 CFR 96.110, 96.210	
Mobile Offshore Drilling Unit					
Well Stimulation Vessel	Designated lease operator must have a SEMS based on API RP 75	No SEMS directly required but may or may not be subject to a designated lease operator's SEMS	Vessel owner/operator must have vessel-Specific SMS based on ISM Code	No SMS required	No SEMS or SMS
Floating Production Storage Offloading Unit					
Shuttle Tanker					
Offshore Supply Vessel	No SEMS directly required but may or may not be subject to a designated lease operator's SEMS				
Accommodation Vessel					

References: 30 CFR- Title 30 of the Code of Federal Regulations / 33 CFR- Title 33 of the Code of Federal Regulations (Source: Federal Register, Sept. 10, 2013)

even those with 30 years of experience, need refreshers. Supervisors and crews are monitoring skill retention, constantly making sure everyone is up to date on safety in areas such as handling cargo, abandoning ship and fire drills. We refresh on those subjects on a weekly basis. We also capture safety compliance and skills-retention information through peer reviews."

The company has on staff a registered nurse who trains employees in first aid, CPR and blood borne pathogens, Barousse said. "We send our guys to training facilities for the SafeGulf program, water survival, rigging and other things can't be done in house and might require a pool, crane or helicopter simulation."

To be fair, industry has not been sitting on its hands; now and in the past. In a program known as SafeGulf – one that also pre-dates the Macondo spill – BP, Chevron, Shell and Exxon-Mobil developed minimum health, safety and environmental training requirements for contractors. Personnel needs have increased with greater attention to safety, Barousse said. "Vessels have more staff than in the past," he noted. "On our small utility vessels, having two captains and two deckhands is relatively new. Less than two decades ago, we ran the same, exact vessels with a two-man crew, doing the same work they're doing today. More recently, four men are required. That gives you an idea of where we've come from." That increase in manpower also comes at a premium.

"Often times we send a new employee out as an extra crew member, say as a third deckhand, to observe and get trained without actually having to be relied on to perform the job," Barousse said.

"When we subcontract or 'broker' outside vessels, we have to be sure the

contract workers we're hiring meet SEMS standards." He adds, "In that case, we might even train people from the other vessel operator's company to get them up to speed."

BSEE Can Fine Contractors Now

A chance of being fined looms in the new environment. "One big change regarding SEMS regulations is that BSEE is now authorized to fine anyone working on a lease, not just the leaseholder," Barousse said. "It's kind of scary in that they used to only have jurisdiction over the lessee. So far, the only fines issued to non-lease holders that I'm aware of were assessed to contractors directly involved in the integrity of a well. But they can extend compliance now to anyone working on the lease."

"Most of BSEE's inspections are scheduled directly with leaseholders over facility inspections, drilling operations, etc., and don't affect boat operators much," he said. "But again, BSEE has authority to fine anyone working on the lease." That means that vessel operators will need to tighten up and remember that, in this environment, they have to answer to more than one master.

U.S. Coast Guard: yet another set of rules

While BSEE's rules hold lease operators accountable for operational safety on Outer Continental Shelf leases, the U.S. Coast Guard wants its own policy for vessels. On September 10, the USCG published a Federal Register notice proposing regulations that would require boats involved in exploration, development or production on the OCS to maintain a vessel-specific Safety and Environmental Management System. The Coast Guard estimates that as many as 2,200 foreign and domestic vessels engaged in OCS activities could be affected, including offshore supply vessels, liftboats, accommodation vessels, mobile offshore drilling units, well stimulation vessels, floating production and storage offload units, shuttle tankers and other vessels under its jurisdiction. The comment period on the Guard's Federal Register notice ends on December 9.

The USCG's proposal would align its regulations with BSEE's and would incorporate the management program and principles of API RP 75 – the American Petroleum Institute's Recommended Practice for Development of a Safety and Environmental Management Program for Outer Continental Shelf Operations and Facilities. API's standard was published in July 1998.

In its September Federal Register notice, the Coast Guard included Table 1 (page 34), describing the current safety regime for vessels operating in the Outer Continental Shelf. But Barousse feels the table is a bit misleading. He said: "For offshore supply vessels, it says 'No SEMS directly required, but may or may not be subject to a designated lease operator's SEMS.' The real-world situation is stricter than that for us, however."

Outlook: BSEE, USCG to Collaborate on Safety

U.S. Coast Guard Rear Admiral Joseph Servidio said in June that his agency and BSEE are committed to working across boundaries toward a shared goal of keeping offshore workers safe. In June, the USCG and BSEE signed a joint memorandum regulating mobile offshore drilling units and said they'll collaborate on similar projects in the future.

At Fleet Operators, worker safety will remain the top priority, Barousse said. Throughout the Gulf, however, vessel operators have scrambled to adjust to BSEE's new rules, while also acknowledging that the deadly Macondo explosion and other accidents in the Gulf of Mexico have justified tighter regulations. Regulatory oversight will only increase, going forward. To its credit, the commercial marine industry got on board early in the game. Those that did should have no trouble meeting new, tighter regulatory requirements. Conversely, those that did not are not necessarily going to like "the new normal."

***Susan Buchanan** is a New Orleans-based business writer, specializing in energy, maritime matters, agriculture, the environment and construction. She holds a master's degree from Cornell University in agricultural economics and an undergraduate degree from the University of Pennsylvania.*

Fleet Optimization

By any yardstick, remote monitoring is fleet optimization in the new millennium.

By Joseph Keefe

You're all over it: optimizing your fleet. But, what does that mean? For some operators, it means making sure their mix of vessels meets the needs of their customers and the prevailing winds of the economy. For others, it entails reading the tea leaves just right when it comes to deciding on time charters or dipping one's toes into the spot markets. Still others focus on the closely linked Holy Grail of reduced bunker consumption and minimal stack emissions. For all of these cool customers, however, "remote monitoring" will also be part of that equation. That said; defining what remote monitoring means is another thing altogether.

Remote monitoring of on board metrics or data points is here. The process is accomplished in different ways by different providers. And, that effort is driven, of course, by the specific needs of the customer. The need to know what is happening on board the vessel – by those ashore, as well as those at sea – touches literally a thousand different parts of the vessel, its operations and the equipment that makes it all happen. Ten different monitoring providers will do it ten different ways and for ten different reasons. The four companies described in this article illustrate that point quite well.

Floscan Instrument Company, Inc.

When FloScan Instrument Company recently announced that it had obtained ABS Product Design Assessment Certification for a new line of Series K Stainless Steel Diesel Fuel Flowmeters, it wasn't because they hadn't already been in the game for a long time. They have. Since FloScan flowmeters were first introduced 40 years ago, more than 750,000 FloScan sensors and systems have found their way onto almost every make of gasoline and diesel engine in the world rated from 25hp to 6000hp. The newest certification permits the installation of FloScan Fuel Monitoring Systems on ABS-classed vessels requiring steel piping components.

Floscan's Engine Monitoring solution is permanently installed. Floscan Sales Manager Joe Dydasco says his product allows operators to "Run your boat at sweet spot. Every day. No matter what." And, he says, his system can and does save customers from 25 to 40 percent on their engine consumption. "Backing off just a few RPM's can reduce fuel consumption by over forty percent with only a half knot loss of speed." Beyond this, the product provides enough time stamped metrics to satisfy EPA requirements for NOx emission reporting.

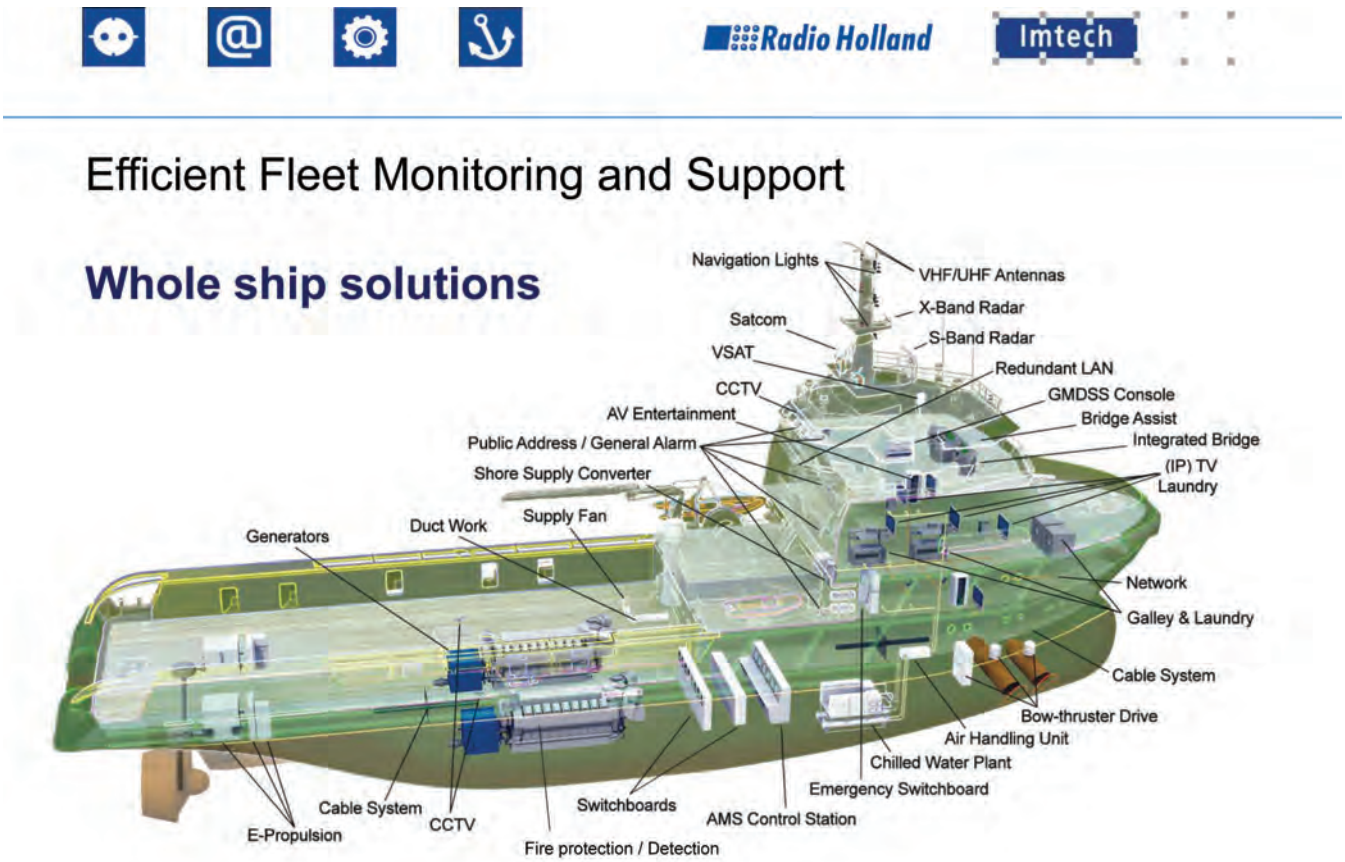
Floscan got started in the aircraft industry and worked its way into the recreational marine markets. The bulk of Floscan business involves workboats, fishing and industrial generator applications. And, Dydasco adds, "The product is well proven in land-based applications, in particular the very strict California (CA – CARB) regime. FAA approved for general aircraft aviation, where fuel consumption is a critical measurement, the product installs and runs at half the cost of some competitors.

"We record all fuel usage from every engine that's installed on the vessel. We also record vessel data – mainly the vessel coordinates (Lat/Lon), course over ground and speed over ground, at as little as one minute increments. It all depends on what data the end-user wants to see," said Dydasco.

A cleaner burn is a more efficient and environmentally correct burn. No one would disagree with that. For example, Floscan's DataLog was developed to record fuel usage data for NOx emissions reporting, simplify fuel inventory control and to monitor vessel location and movement. DataLog also provides the captain with valuable real-time fuel flow data to pinpoint the vessel's most efficient running speed which can improve fuel economy up to 20% or more. Dydasco adds, "And that's why we monitor – it's up to the operator to decide which provides best fuel economy."

The fuel flow and vessel information displayed on the dashboard can be viewed remotely in real-time using remote internet access software such as TeamViewer or LogMeIn. The information is also recorded as daily log files and can be e-mailed automatically from the vessel's PC using the DataNET option.

A FloScan system installed on the Research Vessel Point Sur produced a 6% improvement in fuel economy and with accurate fuel-use forecasting, the Chief Engineer has the



"We need to understand the complete situation on board. Constant communications are available and should be exploited. This can be as simple or as complicated as you want," said Captain Eric Clarke, Managing Director, Imtech Marine USA.

data which allows him to purchase the precise amount of fuel at the best possible price to make their next port-of-call.

Want more? An upgrade to FloNET networking capabilities with GPS link and DataLog software will provide even more accurate monitoring of real–time fuel consumption to fine–tune engine RPM and propeller pitch settings to match prevailing sea states, achieving even greater reductions in fuel usage.

KRAL

According to Christoph Tschegg, CEO of KRAL-USA, Inc., operators want remote monitoring for different reasons. Since KRAL's core competencies involve measurement – extremely accurate measurement – their output satisfies a myriad of requirements. This could involve any number of variables. "Someone else is paying for fuel – a charter, for example. They want an accurate record of consumption. Someone else might be focused solely on optimum fuel economy. Still others might want to know exactly when it is time to clean the hull or get an accurate picture of how much fuel is being saved by that shiny new hull coating. Did the paint job provide the savings the coating manufacturer promised? Or, in the immediate wake of an engine overhaul, before and after measurements can determine if the problem really has been fixed."

KRAL fuel meters provide real time operational feedback to Masters who need to know what speed will produce the best fuel economy. For the bigger picture, shoreside personnel get data necessary to round out reporting for Ship Energy Efficiency Management Plan (SEEMP) requirements. KRAL monitoring systems can be tied into other systems, provided as a display for the Master or Chief Engineer, made a part of a larger data acquisition scheme or connected to offices. KRAL's Tschegg adds, "To get confirmation of savings, you must substantiate those claims and to do that, you need to measure to a very accurate extent. That involves fuel in, and out of an engine, using a positive displacement meter."

KRAL only measures fuel consumption. Data is temperature compensated and provided in real time.

Their equipment is technology, communications and engine agnostic. And, it can be used to combine data with

other information such as power, GPS, etc. And, although most KRAL fuel meters are installed as permanent equipment, some operators use them for specific purposes, as well. For example, each Sentinel class (FRC) Coast Guard vessel being delivered is fitted with KRAL equipment during sea trials to demonstrate performance. KRAL equipment is also used to provide data for engine testing by Fairbanks Morse and MaK engines.

Customer driven as always, KRAL remains flexible in how and what it provides to customers. Tchegg adds, "What you do with the data is your business – and KRAL can integrate that data, as needed."

Imtech Marine USA

Imtech Marine USA Managing Director Captain Eric Clarke told *MarineNews* in October, "We need to understand the complete situation on board. Constant communications are available and should be exploited. This can be as simple or as complicated as you want." He explains further, "Today, everything can be connected and networked and is fitted for remote diagnostics."

The overarching goal of remote monitoring should be to save money. Remote support, remote maintenance, remote reconfiguration of systems is possible in many cases. Integrated bridge systems are an excellent example. In one situation, says Clarke, Imtech's solution was able to detect overheating equipment on board the vessel and called the Captain. Investigations showed that the A/C in that space had failed. Because it was repaired immediately, the call prevented a much bigger problem later. Beyond this, technicians can sometimes diagnose, trouble-shoot and eliminate problems remotely, obviating the need to fly technical personnel thousands of miles at great expense. Clarke adds, "Like cable providers ashore, some companies are reluctant to send someone out if the problem can be fixed remotely via telephone. The same goes for ships equipped with SATCOM."

Better known as a system integrator of equipment and technology for ships and workboats, Imtech leverages that expertise in the remote monitoring game. "Not only can we can integrate all of that – we can 'talk' to the whole ship, as well. Our advantage stems from the fact that we see many ships, many systems, and have more experience with more manufacturers. We can apply that experience to your vessel."

Not every customer that uses Imtech to integrate shipboard systems also employs remote monitoring. But, says Clarke, the percentage is growing. "Do ships really need to have remote monitoring? Absolutely," says Clarke, "It is coming faster than we thought it would."

Selling the service means having to demonstrate the benefits by amortizing the cost over time. That part is usually easy, but for those not quite sold on the concept, Imtech has leasing options for those who want to take service out for a spin before diving all the way in.

The "next big thing" in terms of remote monitoring, according to Clarke, will probably be the real time transmittal of Vessel Data Recorder (VDR) information. Already on board most vessels, now some operators are looking to get course, speed, rudder angle, engines, GPS positioning – as many as 20 data points – in the hands of shore-based personnel, in real time.

OEM agnostic and working with global manufacturers, Imtech is actually active in the inland markets overseas and now, is trying to more fully penetrate a domestic market that includes almost 40,000 hulls. The possibilities for those vessels are endless. But, remote monitoring from Imtech's three help centers – Houston, Rotterdam and Singapore – is anything but local. Following the sun, it provides 24/7 coverage for all customers.

Advanced Mechanical Enterprises / Windrock

Teaming up for a different twist on remote monitoring are Advanced Mechanical Enterprises (AME) and Windrock. Providing a unique service that both provides surveys and engine monitoring across an entire fleet from just one system, AME is the authorized the distributor for Windrock in the marine markets. Described simply as "an EKG of engine conditions" providing "a digital picture of performance," Windrock's technology does so much more than that.

Windrock specializes in the design, manufacture and distribution of portable and online monitoring and diagnostic instruments, software, sensors, and systems for reciprocating machinery. Windrock products are used by engineers to monitor, trend, alarm, and diagnose the mechanical condition and performance of reciprocating engines, compressors, and pumps.

Drilling down further, Windrock technology checks the mechanical condition of cylinders, injectors, liners, bearings and crankshafts. The ultrasonic monitoring system takes its roots from its U.S. Navy, U.S. Coast Guard and Canadian Navy customers. Some use portable Windrock analyzers while others utilize fixed, permanent systems.

Windrock's core market has historically been rooted in the gas markets, which leaves it arguably well-positioned for what comes next. So far, its application on board the commercial workboat sector has been limited, but that's

(Photo: Imtech Marine)

Shoreside monitoring of systems on vessels can help detect small problems before they become serious, costly issues.

probably about to change. Engineered to help gas engine operators defer maintenance schedules to 40,000 hours from 20,000 hours, Windrock and the advent of LNG and/or dual fuel engines in the workboat sector is set to change the dynamics of performance and maintenance of diesel fuel engines.

Used as part of a condition-based monitoring (CBM) program, Windrock helps clients pinpoint where less intrusive or frequent maintenance based on schedules alone can be avoided. More than purchasing a product, customers are buying a bridge to CBM and measurable savings in maintenance costs.

Designed to provide usable on board data for frontline, engineers, the Windrock system also serves as an online monitor, delivering a real time, 24/7 stream of metrics for office-based technicians. Analysts using online data from permanent, fixed Windrock systems can then bring portable units to troubleshoot the engine.

Windrock customers can choose from a wide variety of customizable systems. All Windrock analyzers utilize Windrock MD software for trending, reporting and analysis. The software serves as a single data repository for all information, allowing data to be easily shared between analysts for collaboration and consultation with industry experts. Both Windrock and AME stress that this is analysis – not just data collection. Where others collect and provide data, Windrock provides definitive analysis.

As with many other remote monitoring solutions, Windrock is OEM agnostic, can be used in conjunction with other systems, send data to other systems and can receive data points. Not overly complex and once the set-up is complete, the data is easy to use by mechanics. And, of course, AME is fully involved with the set-up.

Remote Monitoring – Your Bottom Line for Fleet Optimization

It really doesn't matter what you use remote monitoring for. Chances are; it will save you big dollars. If an ounce of prevention is worth a pound of cure, then sophisticated monitoring systems will provide metric tonnes of relief. But, that's up to you. What do you wish you could see, real time and in sharp detail? There must be something.

EPA Tier 4 Emission Regulations

Implications on U.S. Vessel Design, Construction, and Operations

By Mark Masor

The next round of emission regulations will bring significant impacts to the design, construction, and operation of U.S. commercial and government vessels starting in 2014. The impending EPA Tier 4 regulations directly apply to high and medium-speed diesel engines used in workboats, ferries, small cargo ships, and government vessels. These regulations represent the most significant reduction of marine emission levels to date, specifically in the form of nitrogen oxides (NOx). Natural gas fueled engines present one path to compliance, but not the only path. For diesel engines, compliance can be achieved with specialized emission control technologies in the form of after-treatment or on-engine measures. With limitations in availability of clean fuels, diesel engines are often the only feasible or cost effective solution.

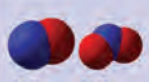
Emission Pollutants

The U.S. EPA and IMO regulate specific exhaust emission components as prescribed in 40 CFR and MARPOL Annex VI, respectively. ***Table 1*** is a summary of these components and respective reduction solutions.

EPA Regulations

Since 2008, the EPA has been phasing in increasingly stringent emissions requirements in steps, or 'Tiers'. Current U.S. marine diesels meet EPA Tier 2 or Tier 3 depending on their engine category. EPA Tier 4 is the latest step of regulations starting in 2014 and impacts all new marine diesel engines greater than 800 hp with per-cylinder displacements less than 30 liters. Tier 4 imposes major reductions in NOx, particulate matter (PM), and hydrocarbons (HC). The reduction of NOx, about 70% from Tier 2 levels, imposes the greatest implications to the vessel designers, shipbuilders, and operators. Since NOx results directly from fuel combustion at high temperatures, reduction requires specialized on-engine (primary) and/or off-engine (secondary) technologies, or the use of cleaner fuels like natural gas.

Table 1

Exhaust Gas Components	Why Bad?	Primary: Engine-Internal Solutions	Secondary: Off-Engine Solutions	Fuel Solutions
Nitrogen Oxides NOx  NO NO_2	Ground ozone formation Respiratory issues Acid rain	Reduce temperature during the combustion process Exhaust Gas Recirculation (EGR)	Aftertreatment technology (e.g. SCR)	Natural Gas
Sulfur Oxides (SOx) 	Respiratory issues Acid rain	Fuel injection control	Aftertreatment technology (e.g. Scrubbers)	Natural Gas, Low Sulfur Fuels, Bio-Fuels
Particulate Matter (PM) 	Air pollution Respiratory and heart issues	Fuel injection control	Aftertreatment technology (e.g. DPF)	Natural Gas, Low Sulfur Fuels, Bio-Fuels
Hydrocarbons (HC)	Volatile Organic Compounds (VOCs)	Fuel injection control and engine maintenance	Oxidation Catalyst	Natural Gas
Carbon Monoxide (CO)	Toxic Ground ozone formation	Fuel injection control Low load avoidance	Oxidation Catalyst	Natural Gas
Carbon Dioxide (CO_2)	Greenhouse Gas/ Global warming	Various measures reducing total fuel consumption per ton-mile		

Compliance Approach No. 1 – LNG

LNG fueled engines burn cleaner and do not require after-treatment or specialized NOx abatement measures to meet EPA Tier 4. This in conjunction with its significantly lower fuel cost makes LNG an attractive option for compliance. In October, Wärtsilä announced the release of its 20DF dual-fuel engine for sale in the U.S. market to comply with EPA Tier 4.

LNG is not a silver bullet. Therefore, a systemic and quantitative approach to trading off LNG versus clean diesel options, as highlighted in Figure 1, is advisable. First, one must consider the availability of LNG in areas of operation. Though the fuel cost per unit energy averages about 85% less than marine distillate fuel, this "delivered price" can become less attractive when considering the infrastructure and transport cost [2]. If LNG is reliably available, a technical feasibility analysis is performed to determine if a vessel can meet the owner's requirements with a dual-fuel or LNG-only system. The volumetric energy density of LNG when considered with its storage and support systems can be up to three times more demanding than diesels; a space penalty that many vessels cannot afford. If technically feasible, a total ownership cost analysis needs to compute a low enough payback period to justify the higher investment cost. Annual vessel utilization, maintenance costs, fleet composition and crew training are other critical factors to be considered.

Compliance Approach No. 2– Diesel with On-Engine Measures

The on-engine approach requires the addition of an Exhaust Gas Recirculation (EGR) system. EGR re-circulates a portion of the exhaust gas back to the engine cylinders. This lowers the oxygen content into the intake leading to lower combustion temperatures and less NOx production. A heat exchanger cools the exhaust air before entering the air intakes. Since combustion is less efficient due to lower combustion pressure, EGR presents a fuel consumption penalty. To offset this, manufacturers are implementing new generation common rail direct fuel injection systems with higher pressures. The common rail allows finer electronic control over the fuel injection to provide multiple controlled injections per stroke. EGR avoids the carriage of a special emissions treatment fluid, but adds weight and complexity on the engine. Also, EGR requires higher quality fuel with lower sulfur content for proper operation. Though not an issue in the U.S., this can could create risks for vessels operating abroad where low sulfur diesel may not be available. EGR is a mature technology widely used for on-road engines. In October 2013, GE Marine announced successful testing of its 12-cylinder V250 Ma-

The volumetric energy density of LNG when considered with its storage and support systems can be up to three times more demanding than diesels; a space penalty that many vessels cannot afford. If technically feasible, a total ownership cost analysis needs to compute a low enough payback period to justify the higher investment cost.

Mark Masor, Gibbs & Cox Gulf Coast Operations Manager

rine Diesel Engine to meet EPA Tier 4 with an all on-engine approach.

Compliance Approach No. 3 – Diesel with SCR After-Treatment

Among multiple after-treatment technologies, the urea-based Selective Catalytic Reduction (SCR) system as shown in Figure 2, represents the most mature and available solution at present day. An SCR works by using a catalyst to chemically reduce NOx to clean nitrogen (N2) using the urea as a reagent in the presence of high-temperature exhaust gases. SCR is compatible with higher sulfur fuels and if necessary can be equipped with a soot blower to remove particulate matter.

In October 2013, Caterpillar Marine announced that their C280 and 3516C models will meet EPA Tier 4 using SCR after-treatment systems. Cummins Marine already uses SCR and indicates their planned use for higher horsepower marine engines to achieve Tier 4. Other engine manufacturers have also indicated SCR as their planned approach to compliance.

SCR After-treatment – Vessel Design Implications

With indications that many, if not most, of the marine diesel engine makers are taking the SCR after-treatment route to EPA Tier 4 compliance, the industry is hungry for data. Over the last few years, both commercial and government stakeholders have requested vessel designs to meet Tier 4. Naval architects need to understand the space, weight, and technical implications of supporting such systems. Though increasingly more available, data is still limited as to what and when engine options will be available in a Tier 4 configuration.

Gibbs & Cox partnered with Tenneco, an emissions technology leader, to understand the vessel design implications of incorporating a urea-based SCR system. Point design studies were performed to quantify the impacts of SCR systems on small and medium size commercial vessels. Two of these designs are highlighted in Figures 3 and 4. The SCR system comprises multiple subsystems including the mixing tube, catalyst module, and urea dosing system. First, the pump on the urea dosing system delivers the solution from the tank to the exhaust stream through injectors on the mixing tube. Then, in the presence of the hot exhaust gas, the urea decomposes to form ammonia. The ammonia reduces the NOx to clean nitrogen gas (N2) and water within the catalyst module. The urea dose and timing is coordinated by the dosing control unit using sensors for temperature, pressure, and NOx at the SCR.

The point design for an ocean tug showed that the added weight of the SCR system and urea equaled 1.7% of the vessel's full load displacement. The added weight on a 350 ft multipurpose vessel was 0.8% of its displacement. For both vessels, the SCR system occupied approximately 3% of

the useable engine room volume excluding the urea tanks.

The SCR Mixing Tube and Catalyst Module

The SCR mixing tube and catalyst module comprise about 70% of the total system weight excluding the urea solution. The mixing tube needs to be positioned close enough to the engine exhaust to allow for high enough temperatures to facilitate the decomposition of the urea solution into ammonia. Minimum exhaust temperature varies based on installation, but 400 degrees Fahrenheit is a good ballpark number, according to Tenneco. An inherent level of acoustic noise reduction is provided by the SCR on the order of 20-25 dBA. Depending on the vessel noise frequency requirements, a smaller silencer and spark arrestor is necessary upstream of the SCR.

Urea Storage and Transfer

As a rule of thumb, a designer should allocate 5% of the total fuel volume for the urea solution. For larger vessels, a day tank is positioned in proximity to the urea dosing systems. The urea solution is corrosive to bare steels and aluminums. As such, epoxy phenolic paint systems are required for coating carbon steel storage tanks; which are widely available from marine coating companies. Wet components of pumps need to be poly/plastic or stainless steel. The urea solution is not flammable or toxic in ambient temperatures but decomposes to ammonia when exposed to high temperatures, such as those caused by engine room fires. Since gaseous ammonia is a toxic inhalant, safety precautions are necessary – such as stainless steel piping in the engine room.

Operating Logistics

A 32.5% urea solution has been broadly available for years on our highways as Diesel Exhaust Fluid (DEF). This percentage provides for the lowest freezing point of 11 degrees Fahrenheit. For marine use, a 40% urea solution is favored as it comprises less volume and weight with a manageable freezing point of 32 degrees Fahrenheit; the same as water. Ship service companies, such as Wilhelmsen Ship Services (WSS), currently deliver a 40% Urea Solution to U.S. ports. Today, the deliveries are made by tank truck directly to the vessel in port, or by 260-330 gallon totes which can be loaded on board. As demand increases, urea solution will become readily available at fueling piers.

CAPEX and OPEX

The International Association for Catalytic Control of Ship Emissions to Air (IACCSEA) indicates CAPEX are $25-$63 per hp and OPEX from $3.0 to $7.1 per 1000 hp-hr for an SCR System [6]. Based on this data, an SCR system for 150 foot Ocean Tug could translate to an initial cost of $200-to-500,000 USD and a recurring $125-300,000 per year, based on 5,000 operating hours per year.

Certification Requirements

Unlike IMO, the EPA allows only the engine manufacturer package to obtain emissions certification for new engines. This means that shipyards, owners, or 3rd parties cannot perform their own packaging of lower tiered engines with an SCR after-treatment system to achieve Tier 4 certification. This will limit engine selection for a few years to come. To date, only a small percentage of EPA Tier 4 compliant engines have been publicly released, increasing risk on new U.S. vessel build projects.

The Way Forward …

The Tier 4 compliance strategies identified herein are more complex than the previous generations of engines; translating to cost, technical, and performance implications for the designer, shipbuilder, and operator. The optimum solution for a specific application depends on the operator's requirements. These include, but are not limited to: areas of operation, load profile, endurance, and ultimately total ownership costs.

What we can expect to see in the coming months and years, are announcements from engine makers indicating EPA Tier 4 certified engine packages. Some international engine manufacturers may opt not to invest in certifying an EPA Tier 4 engine, if the demand is not large enough. Rather, they will wait to the international implementation of IMO Tier III before introducing NOx abatement systems. This could limit engine options to U.S. customers for up to the next seven years.

Climax:
the ACME of Economics for Shipyards

Portable, cutting edge technology for critical shipyard applications.

By Joseph Keefe

Discussions that involve global shipbuilding in today's complicated economic environment are anything but a cut and dried proposition. For example, international shipbuilding, slowed by the overbuilt containership and tanker sector and a lingering recession, finds itself retrenching for the next boom and hoping to capitalize on retrofit and repair markets that will very soon be the beneficiary of mandatory ballast water treatment installations. Closer to home, a robust recapitalization of the domestic inland, offshore and even the bluewater sectors promises one of the longest cyclical upswings in history. Optimism for U.S. builders is, at the same time, tempered by sequestration fears and the knowledge that certain federal projects will probably never come to fruition.

As U.S. firms, for the most part, ride the good times and look to diversify portfolios heavy on government or federal backlogs, foreign builders look for new ways to create economy in a somewhat tougher market. One firm that hasn't skipped a beat through all of the drama is Climax Portable Machining and Welding Systems. That's because providing sales, rentals and expertise for critical shipyard tasks is just one part of their business. Helping customers save money is another. Gary Corso, North American Director of Sales for Climax, told MarineNews in October that for most yards, it's all about working smarter.

"A year ago, the whole issue of sequestration had the industry worried about a slowdown. Everyone – including us – was concerned about projects being cancelled or delayed. But what came out of it was that shipyards have to work more efficiently – use their money smartly. And that's exactly where our products have come into play – in North American shipyards and globally as well. You have to look at ways where these tools can be used more than once. Get the job done right the first time and keep all the projects on line."

Corso insists that Climax has the right tool for the right time, in the right business. "Where some companies might've slowed down in a mixed shipbuilding economy (here and

abroad) we're actually going full force with our shipbuilding customers. And they've required us to go out to the yards to see what they are doing and so we do. There's a lot going on – at Newport News, Vigor, General Dynamics, Electric Boat, Portsmouth, Puget Sound, and much more than that. So, if you have a tool that can accomplish what they need, well, there aren't a lot of companies that can do that."

Most of what Climax does revolves around boring, welding, machining, milling and grinding. Corso says that stern tubes are a perfect application for all of that. "Someone has to go in and make it round again and then, get the metal off by cutting it back out – all to very specific tolerances. And now that we have welding solutions, we can now go in and integrate the welding into our cutting solutions."

Within the last two years, two significant acquisitions have made all the difference for privately held, Oregon-based Climax Portable Machining & Welding Systems. Relatively small in size, the purchases have now allowed Climax to integrate welding, valve repair and testing technologies into their already well-known machine tool applications. For example, the integration of New Hampshire-based Bortech Corporation's welding technologies into the Climax boring solution dramatically reduces time to complete any job while producing a high quality product.

Separately, Climax brought valve testing, repair and technology together in September 2013 when it closed on a deal to purchase Houston-based Calder Testers. Calder provides advanced equipment for testing industrial valves, hosing systems and specialty pressure containers. Founded in 1984, Calder serves oil & gas, power generation, valve manufacturers and diesel engine industries. Corso explained, "This means you now have access to valve repair and testing technologies along with expanded technical support and rental capabilities from the Houston Location."

The Calder acquisition in particular greatly expands the Climax service suite. The key advantages of an integrated solution include speed, control and the capability to perform boring in the exact same spot (without moving work item and providing precision) as the welding, simply by interchanging the two pieces of equipment. Integrated valve repair and testing solutions also compliment what Climax already does and everything, according to Corso, is built here in the United States.

The number one tool in the Climax arsenal today has to be its new generation of linear mills. Particularly helpful for jobs involving offshore rigs, the new style of linear mills provide cutting from a gantry style over a broader workspace and producing finishes that otherwise might involve one or two moves with a machine tool. Gary Corso adds, "Portability is the key. Transport the units to offshore rigs and tap into the local power source to do the work offshore on site, eliminating the need for the rig to come in for repairs. After the work is done, they can be taken apart and transported back ashore." Indeed, and as the lifting of the offshore drilling moratorium came about, Climax got a rush of service business as operators and offshore exploration companies re-tooled for operations. This involved milling machines, boring bars, gantry mills, linear mills, welding solutions.

Another assignment – this time in Viet Nam – involved a challenging re-machining of four flanges that were each 9 feet in diameter at the top of a ship's tower. Not only were the workers constrained by the narrow work area, but the vessel was anchored alongside the docks and the waves made the job of achieving the tight tolerances quite challenging. Even while working in restricted space and at such a height, the workers were able to achieve 0.2mm flatness on all four 3.002 meter-wide flanges. For this project, the portable flange facer was hoisted by crane more than 100 feet above sea level and the technicians were able to resurface all four flanges within required tolerances and within a 2 week time frame.

(Continued on page 58)

Inland Marine Transportation Investment:

It Comes Down to Priorities.

By Dennis Wilmsmeyer, President of Inland Rivers, Ports and Terminals, Inc

Can you imagine the public outcry if our country's major interstates were not repaved or patched for 50, 60 or 70 years, and at the same time, regulations were introduced that encouraged wildlife to nest and repopulate on the road surface, because the animals once roamed there? Surface transportation by trucks and automobiles would come to a standstill. Travel, as we know it, would cease. There would be an immediate push to find another way of moving goods, and an entire system, a true asset to our country, would be wasted. And yet, that is exactly what is happening today to our inland river transportation system.

There are 12,000 miles of navigable rivers in the United States, and each day we are hearing stories that some of these rivers, or river miles, are becoming extinct to river navigation. Locks and dams that were built in the 1940s and '50s are not being maintained because federal priorities are elsewhere. Dredging, necessary to keep shipping channels and terminals open, has met with the federal budget axe. Since the system is not maintained, it has become less reliable. Since it is less reliable, it becomes less used. And since it is used less, the U.S. Corps of Engineers (USCAE) decides that it no longer makes sense to fully operate the lock system on a 24-hour basis, thereby bringing about the demise of transportation on the rivers; our nation's greatest asset. At the same time, millions of dollars are being spent to re-stock the river system with fish species or birds, in an effort to convert the rivers to a "pre-navigation" era, as if to say that the river navigation destroyed the very fabric of river life. It is the law of self-fulfilling prophecy. If you believe something long enough, eventually it will come true through your actions.

While I believe that it is important to ensure that the river eco-system is intact and maintained for our grandchildren's grandchildren, I believe it is also important to find balance with river navigation. Barge transportation is the most cost-effective and environmentally-friendly form of transportation. The movement of goods by barge produces less carbon monoxide and other pollutants, is safer, and uses less fuel than either rail or truck movements. Yet, barge transportation, and maybe more appropriately, inland river navigation, seems to be taking it on the chin by EPA and Natural Resource departments.

If we suppose just for a moment that our country needs to continue to move goods; that exports and imports of commodities are important to us, and that American consumers still want to buy goods, then why is it so difficult to imagine that many of those goods can and should be moved by barges? Shouldn't it be those who are most concerned about the environment yelling the loudest that barges should be used instead of trucks or trains? Shouldn't we as a country realize that our priorities have gotten so out of whack that we have pushed the most cost-effective form of transportation to the bottom of the heap?

We only need to look at other countries, such as China, to see their massive investments in their waterway system and their unprecedented shift to container traffic on their rivers, to wonder whether we are still the teacher, or if we have become the student. And if we are the student, we have been the one not listening or paying attention in class.

Without a doubt, it is time for all river-focused groups (ecology and navigation) to lock arms and work together to set priorities for our country's rivers. Without this approach, the pendulum of the clock swings too far in one direction, to the detriment of the other.


Dane


Guidry


Elliott


Hankins


Adams


Clemons

Gulf Coast Shipyard Group Consolidates Global Branding

Gulf Coast Shipyard Group, Inc. will consolidate its global branding under the Gulf Coast Shipyard Group. Gulf Coast Shipyard Group manufactures offshore supply vessels, tank barges, military patrol vessels, tugs and superyachts from two facilities located in Gulfport and New Orleans. Gulf Coast Shipyard Group re-entered the commercial vessel market in 2010 and has invested significant capital into its facilities to serve the commercial vessel market. The company also expanded its presence in the military vessel market. Earlier this year, private investment firm Littlejohn & Co., LLC invested in Gulf Coast Shipyard Group to support their strategic growth plans and continue investments in its shipyards. Trinity Yachts will continue as a division of Gulf Coast Shipyard Group.

Harvey Gulf Closes ACO Asset Purchase

Harvey Gulf International Marine closed its asset purchase of Abdon Callais Offshore, a deal worth $460m in cash, while simultaneously selling six of the older assets to Adriatic Marine for $72m. CEO Shane Guidry said, "It's been a very busy year. Abdon Callais is the third company I have purchased in the last 12 months, adding 58 vessels to my fleet. Today, I have 14 vessels at 5 shipyards ranging in size from 220 to 340-ft. in length under construction to meet our customer's needs today and for the future. Our Liquefied Natural Gas (LNG) vessels, LNG marine fuel dock and the large IMR vessels presently under construction are the future of vessel support services for the Gulf of Mexico and soon to be around the Globe."

ASA Names New Officers

The American Salvage Association (ASA) elected a new slate of officers at its fall meeting in Arlington, VA. Paul Hankins, Vice President for Salvage Operations at Donjon Marine Co., Inc., was elected President, succeeding Tim Beaver, Global Diving & Salvage, Inc., who served as President from 2011-2013. Todd Schauer, Resolve Marine Group, was elected Vice President, and Jim Elliott, Teichman Group, was named Secretary/Treasurer. In addition, David DeVilbiss (Global Diving & Salvage, Inc.), Robert Tyson (Svitzer), George Wittich (American Marine Corporation), were elected to ASA's Executive Committee. John Cameron (Charleston Pilots) was elected chairman of the Associate Membership Committee, and will serve on the Executive Committee in that capacity.

OMSA Announces Leadership Transition

The Offshore Marine Service Association will begin a transition of leadership. Several months ago, President and Chief Executive Officer Jim Adams informed the OMSA Board of Directors that he would be stepping down by the end of the year to manage a startup business that he and his partners have developed in his hometown of Louisville, Kentucky. Billings comes to OMSA from Washington, DC, where he has worked for the past nine years on maritime issues in the U.S. Senate for Senator Mary Landrieu of Louisiana and the Committee on Homeland Security and Governmental Affairs.

Jones Joins TOTE Services

Scott Jones has joined TOTE Services as Vice President for Business Development and Strategy. In this position Jones is responsible for developing new business portfolios in the Government and commercial sectors, strategic planning and contract management.

InterMoor's Guidry is Global QHSE Manager

InterMoor announced the appointment of Cohen Guidry to the role of global QHSE manager. Guidry joined InterMoor in 2006 as HSE manager and has more than 20 years of experience in the offshore oil and gas industry. He will be based at InterMoor's offices in Morgan City, LA.

Vigor Renames Two Subsidiaries

Vigor Industrial CEO Frank Foti has announced the renaming of two of the company's subsidiaries. US Fab, Vigor's fabrication and shipbuilding subsidiary, is now Vigor Fab. Alaska Ship and Drydock, which operates the Ketchikan shipyard in Alaska, is now Vigor Alaska. Vigor Fab and Vigor Alaska join three other subsidiaries under the Vigor name. These include Vigor Shipyards, which provides repair, maintenance and modernization

Crowley Presents Scholarships to CMA Cadets

Crowley Maritime Corporation awarded three Thomas B. Crowley, Sr., Memorial scholarships to California Maritime Academy students Andrew Leonard, Jeff Harcq and James McSweeney during the 2013 Containerization and Intermodal Institute's Connie Awards dinner. Crowley Training Specialist Victoria Ellis presented the scholarships at the event. Leonard, a native of Glendale, Arizona, serves as the residential assistant for his freshman class. When Harcq applied to Cal Maritime, he had already obtained his 50-ton master's license and had more than 10 years experience as a mechanic for the Correct Craft boat dealer in Sand Diego. He has set his sights on the tug industry. McSweeney's path to Cal Maritime includes time spent as a deckhand aboard a fishing boat in Alaska.

Jones

Cohen

Foti

Holcomb

services to the U.S. Navy and Coast Guard, Vigor Marine, which provides fixed-price ship repair, refit and modernization services to commercial customers, and Vigor Machine, which provides machining work for a variety of industrial applications, including turbines and generators.

EBDG Welcomes Holcomb

Richard Holcomb has joined the Elliott Bay Design Group (EBDG) as a senior naval architect. Holcomb is a registered professional engineer (PE) and brings more than two decades of naval architecture experience to his new position. He holds a MSE in naval architecture and marine engineering and applied mechanics from the University of Michigan, and a BS in Mechanical Engineering from the University of Washington.

Moore Joins Jeppesen

Terrence Moore joined Jeppesen as Senior Manager, Commercial Marine Sales. Moore will be responsible for sales related to the company's full suite of navigation, vessel efficiency and optimization solutions, including Jeppesen's Vessel and Voyage Optimization Solution (VVOS), FleetManager and other innovative technologies. Most recently, Moore served as Director of Business Development for AEP River Operations.

Mund Joins AdvanTec

Licensed Professional Engineer and Naval Architect Andrew Mund has been named AdvanTec Marine's Technical Director. His early career was spent as a naval architect. He rose through the ranks at several shipbuilding companies, eventually founding his own company, where, until joining AdvanTec Marine, he served as managing director. Mund will work from AdvanTec Marine's Gulf Coast sales and design offices near Mobile, Alabama.

Willard Marine Appoints Hunter

Willard Marine appointed Taylor Hunter as director of sales. Hunter will assume overall responsibility for the company's sales in the U.S. and internationally. He will be based in Willard Marine's corporate offices in Anaheim, Calif.

Port of New Orleans Elects Packer

The Board of Commissioners of the Port of New Orleans elected Daniel F. Packer chairman. He succeeds Joseph F. Toomy. Toomy will continue to serve as a commissioner. Gregory R. Rusovich will take over as vice chairman and Scott H. Cooper will serve as secretary-treasurer. Packer earned a bachelor's degree in business from Charter Oaks College and a master's degree in business administration from Tulane University and served in the U.S. Navy Nuclear Program from 1969 to 1975. Packer retired from Entergy in 2007.

Nunez Honored for STEM Achievements

Huntington Ingalls Industries announced that Ivette Nunez, a systems


Moore


Mund


Hunter


Packer


Nunez

engineer at the company's Ingalls Shipbuilding division, was honored by the Great Minds in STEM organization at the annual Hispanic Engineer National Achievement Awards Corp. conference in New Orleans. Nunez received a "Professional Achievement -- Level I" award, which honors science, technology, engineering and math (STEM) professionals with 10 to 19 years of experience who have made significant contributions in their fields. With Ingalls since 2005, she holds a bachelor's degree in engineering and is pursuing a second bachelor's degree in mechanical engineering from the University of New Orleans.

Martínez to Direct SENER's Mexico Marine Unit

Héctor Martínez will carry out this new responsibility in addition to his current responsibility as Commercial Director of the Aerospace Strategic Business Unit in the same division. Martínez is an Electromechanical Engineer graduated from the Pan-American University, specializing in Industrial Engineering, and holds a master's degree in Business Administration from the IPADE Institute.

Edwards Receives Award

Superior Energy Services (Superior) said that the Houston Business Journal (HBJ) has recognized Blaine Edwards, a Superior assistant general counsel, as the Best Associate General Counsel of a Small Legal Department for the 2013 Best Corporate Counsel Awards. As the only in-house litigator at Superior, Edwards is responsible for a varied, worldwide docket of cases.


Martinez


Edwards


Wegener


Hatherley

With Superior for five years and a practicing lawyer for 23 years, he is a magna cum laude graduate from St. Mary's University School of Law.

Seakeeper Launches Professional Division

To serve growing demand for gyro stabilization, Seakeeper has established its new Professional Division for commercial, military, workboat, offshore, research and patrol markets. Driving Seakeeper's initiatives for the Professional Division are new team members Carl Wegener, Commercial Sales Director – Americas and Sean Hatherley, International Commercial Sales Director – APAC & EMEA. The company plans further infrastructure development around this division. Wegener comes to Seakeeper with more than 25 years of commercial marine industry experience. Hatherley joins Seakeeper after serving as VP of sales with Intellian Technologies.

EBDG Opens Office in Alaska

Elliott Bay Design Group (EBDG) established an office in Ketchikan, Alaska. Said Brian King, EBDG VP of engineering, "This move enables us to better serve our Alaska clients and to establish new relationships and deepen existing ones. We hope to enjoy beneficial business partnerships in the state for some time to come."

Ballard Diving & Salvage Changes Name, Expands

Ballard Diving & Salvage announces that it is changing the company name to Ballard Marine Construction, Inc. to better reflect its customer base and service capabilities. In addition, the company is expanding with fully staffed and equipped locations in Chicago, Florida and Wisconsin. The locations complement existing BMC regional offices. Ballard Marine owner Shilo Hutton said, "The new company name more clearly captures the capabilities of our highly skilled and accomplished team of professionals and reflects our expanded marine service capabilities."

Olmsted Lock & Dam Work to Continue

The passage of last month's Continuing Resolution to fund the Federal government and raise the debt ceiling contained a provision to raise the 902(b) cap on the amount that can be spent on the Olmsted Project in Illinois to $2.9 billion from the current $1.56 billion. The measure does not appropriate funds, but allows work on the project to continue. The U.S. Army Corps of Engineers informed the Inland Waterways Users Board in August that the Olmsted project would be shuttered in November 2013 and would displace 400 workers if Congress did not act the raise the cap. If Olmsted were to have shut down, according to the Corps, it would have cost $40 million to restart the project, and of course, needlessly delay its delivery.

Signet Expands Capabilities

Signet Shipbuilding & Repair, (SS&R) a division of Signet Maritime Corporation announced the purchase and operation commencement of its newest heavy lift crane for new construction and repair. The 150-ton crawler crane will be utilized for hauling small vessels and barges from the water, and loading/offloading marine equipment while vessels are dockside. The Link Belt Model 238 HSL crawler crane has a main boom length of 110 feet; a 30 foot fixed jib range, and a maximum tip height of 140 feet. The shipyard already operates a 600-ton Marine Travelift fully capable of dry docking and performing underwater repair.

BSEE Extends Public Comment Period

The Bureau of Safety and Environmental Enforcement (BSEE) announced today a 45-day extension to the public comment period for the proposed rule on offshore oil and natural gas production safety systems. Comments will now be accepted through Dec. 5, 2013. The proposed rule will revise 30 CFR 250 subpart H, Oil and Gas Production Safety Systems, to address recent technological advances. This section of the regulations has not had a major revision since it was first published in 1988. The public is invited to submit comments. The proposed rule can be viewed at: http://www.gpo.gov/fdsys/pkg/FR-2013-08-22/pdf/2013-19861.pdf

Jeppesen Revolutionizes ENC Licensing With New Solution

Jeppesen has revolutionized the navigational chart industry by introducing FlatFee licensing for its official Electronic Navigation Charts (ENCs). Jeppesen FlatFee lets mariners purchase some or all of nine worldwide zones at an affordable fixed price. Vessels are able to view and use all charts, for voyage planning and navigation, without limitations for one year. If sailing needs change, additional zone subscriptions can be added without having to create new licenses. Jeppesen uses a variation of existing licensing methods to ensure accurate processing of Hydrographic Office commissions.

www.jeppesen.com/marine/commercial

Omni-Directional Output for BEx Horns

E2S has introduced a new option for its market-leading BEx range of explosion proof horns. A new design of output horn turns the sound 90 degrees into a radial, omni-directional pattern without reducing the unit's sound output levels. Suited to combine horn/strobe units that are ordinarily installed with the strobe at the top and the horn facing downwards so that the sound output is pointing directly at the floor, limiting its range and impact, the BEx combined unit's the radial horn offers a smaller footprint than the directional one.

www.e2s.com

Victaulic Valves DNV Approved

Victaulic has received Type Approvals from DNV (Det Norske Veritas) for its Vic-300 MasterSeal butterfly valves - Series 761 and Vic-Check check valves - Series 716 and 716H. The approval certificates are valid until end June 2017 and cover Class III piping systems for fresh water cooling, condensate return, non-essential systems, sanitary drains and non-essential service air. Vic-300 MasterSeal butterfly valves have DNV Type Approval in the size range DN50 – 300 (2" – 12") with a pressure rating of 21 bar (300 psi) and a temperature range from 0 - 121°C (32 – 250°F).

www.victaulic.com

Raymarine Evolution autopilot certified for SeaStar Solutions Optimus systems

Raymarine's new Evolution EV-2 drive-by-wire autopilot system has been certified for use with SeaStar Solutions' Optimus EPS and Optimus 360 electronics steering systems. Optimus EPS systems provide effortless electronic power steering, while Optimus 360 systems add 360-degree maneuvering capabilities using a joystick controller. Both use state-of-the-art CAN bus networking for steer-by-wire control. The Evolution EV-2 autopilot system delivers sharp course keeping and simple operation. Evolution's innovative EV-2 sensor core connects directly to the Optimus CAN bus network. Easy to install, the Evolution autopilot uses simple Dockside Wizard and Automagic calibration.

www.raymarine.com / www.FLIR.com

Scania 16-liter V8 EPA Tier 3 Engine

Scania's powerful 16-liter V8 EPA Tier 3 engine, intended for propulsion and auxiliary use, is based on Scania's new state-of-the- art modular engine platform. Engineered to produce incredible power, while maintaining a size that is compatible for auxiliary equipment, the V design reduces the overall length of the engine which also makes for easy installation. Most repairs and servicing can be carried out by a single service technician. The output ratings for Scania's 16-liter marine propulsion engine ranges from 550 – 900 hp, with outputs between 550 – 1000 hp in international and exempt markets.

www.scaniausa.com

Bel-Ray Biodegradable Wire Rope Grease

Bel-Ray Biodegradable Wire Rope Coating Grease is a highly biodegradable and adhesive wire rope lubricant and protectant designed for use in the most extreme environments. Using a seed-oil based, organo clay-thickened grease, this revolutionary product can be applied to wire ropes and cables either manually or using clamp type pressure applicators. Readily biodegradable, including >80% renewable bio-based components, Biodegradable Wire Rope Coating Grease, is >60% biodegradable in 28 days according to ASTM D5864 (similar to OECD 301B). Its no-sheen formula also passes the 60-minute EPA Static Sheen Test.

www.belray.com

PRODUCTS

MTU Series 1163-04 Engine for by Korean CG

MTU was chosen by the Korean Coast Guard to provide propulsion and onboard power for a new class of vessels in its expanding fleet. The new 5000-ton displacement patrol vessel will be powered by four MTU 20V 1163 M94 engines in a Combined Diesel and Diesel (CODAD) propulsion configuration, with onboard power provided by four 12V 4000 M23S gensets. The newest MTU Series 1163M04 engine has upgraded features with a common rail fuel injection system, an advanced electronic engine management system and improved combustion process to meet IMO 2 emission regulations.

www.mtu-online.com

SNSS Introduces Alum Ceramic Non Skid Peel and Stick

SNSS LLC's patent pending Non Skid Surface for peel and stick application to walkways or decks. The surface engineered grip offers 10+ years expected life, is corrosion proof, UV proof, oil and chemical resistant, and can be cleaned by scrubbing and/or pressure washing.

Fabricated with a technical alloy holding a matrix of sharp ceramic abrasives, with hardness just under diamonds, Silvagrip is ductile and capable of being shaped or bent, but at the same time giving strong and hard non skid wear surface.

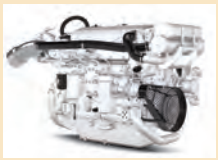
www.silvanonskidsolutions.com

Jet Edge: Waterjet Parts & Accessories

Waterjet systems manufacturer Jet Edge, Inc. recently released a new brochure highlighting its precision water jet cutting products. The brochure features Jet Edge's precision waterjet cutting systems and waterjet pumps as well as waterjet parts and accessories. Jet Edge's ability and willingness to manufacture custom waterjet systems has made Jet Edge a go-to manufacturer for some of the world's toughest waterjet challenges. The brochure provides an overview of waterjet's numerous applications and benefits. Jet Edge manufactures a wide range of precision waterjet cutting systems in sizes up to 9m x 30.5m.

www.jetedge.com

John Deere's Tier 3 Marine Engines



John Deere Power Systems (JDPS) will meet U.S. EPA Marine Tier 3 emissions regulations with a complete lineup of diesel engines from 74 to 559 kW (99 to 750 hp). New PowerTech-TM 9.0L and 13.5L Tier 3 propulsion and generator-drive engines join the 4.5L and 6.8L Tier 3 models. JDPS Tier 3 marine engines meet current European Union emissions requirements for recreational engines and inland applications, and limits established by IMO MARPOL Annex VI. The PowerTech 6090AFM85, 6090SFM85, 6135AFM85 and 6135SFM85 propulsion and generator-drive engines are the latest additions to the JDPS Tier 3 lineup.

www.JohnDeere.com/jdpower

Laborde Launches New Compact Power Unit

With customers experiencing reduced pump off times with Laborde Products' Barge Power Units and after success with previous versions of its C1-D1 Power Unit, Laborde introduces a new and improved version. The new C1-D1 Power Unit, while retaining the marine propulsion, is a much more compact, all-mechanical Mitsubishi S6B3 engine that delivers the time reducing 429 bhp. Numerous new features accompany the new offering. Similar to existing units, interchangeable components provide for either left or right handed installation. The stainless steel enclosure keeps the unit in-service longer with less maintenance.

www.labordeproducts.com

Smartplug Is Shore Power Solution For Metalcraft

SmartPlug has been named as the shore power solution for MetalCraft Marine. SmartPlug will supply its 50 and 30 amp products to the standard in the world's toughest fireboats. MetalCraft designs and builds high speed patrol and search & rescue craft. The SmartPlug connector and inlet protect against the leading causes of fire and electrocution: loose connections and overheating. The unique sleeve configuration allows any pressure or force to be absorbed by the assembly's body, not the electrical pins. SmartPlug is effortless to orient and connect, even in the dark.

www.smartplug.com

VGP-Compliant Lubricants from Panolin

With nearly 30 years experience in producing environmentally-considerate lubricants, PANOLIN offers its VGP-compliant Greenmarine products to help operators meet EPA requirements. Not a newcomer on the market, PANOLIN Greenmarine lubricants use fully saturated synthetic esters and specially developed additives to achieve 100% VGP and sVGP compliance without sacrificing performance. The range includes hydraulic fluids, gear oil and production line control fluids, as well as lubricants for stern tubes, gear boxes, cables and sliding parts. By decreasing the frequency of oil changes and enhancing operating efficiency, Greenmarine products reduce CO2 emissions.

www.panolinamerica.com

EIVA launches high-quality winch product range

The OceanEnviro product range of winches for survey and deployment operations is now a potential item on orders placed by EIVA's customers. As of October 2013, the winches will carry EIVA's logo and the name OceanEnviro, as the company launches its own range of winches for survey and deployment in connection with oceanographic and hydrographic operations. OceanEnviro is designed in collaboration with winch-specialist Sepro Technology AS. The product range offers cable lengths ranging from 600 to 2,700 meters, drum diameters from 250 to 480 millimeters, and motor power from 1.5 to 10.4 kW.

www.eiva.com

Sea Catch Spring Safety Pin

Sea Catch quick releases can now be fitted with a Spring Safety Pin (SSP) that allows users to eject the pin from a distance and do so using the release lanyard. The first pull on the lanyard removes the R-clip from the pin and a compression spring ejects the pin which is firmly tethered to the body. The second pull activates the release lever to release the object or item under load. This option is clearly most useful on models TR3 to TR10.

www.seacatch.com

Caterpillar Relaunches Renowned Cat 3406C

Caterpillar Marine Power Systems is relaunching one of the most successful marine engine platforms in its history. The Cat 3406C marine propulsion engine will enter production in late 2013, providing customers in lesser regulated countries, including Latin America and Asia, with an economical, dependable solution for their commercial marine vessels. The mechanically governed 3406C propulsion engine will be available in ratings of 272 bkW @ 1800 rpm and 298 bkW @ 1800 rpm. The engine is ideal for small offshore, inland waterways and commercial fishing applications.

http://marine.cat.com/news-events

Powershark Tool Eats through Biofouling

Serious bio-fouling removal calls for a serious tool. The PowerShark WB3000, a powerful new rechargeable, submersible handheld tool from Waveblade, Inc., removes barnacles and other unwanted growth in seconds. It delivers a new level of efficiency and safety for shallow dive maintenance work on hulls and marine structures, and works equally as well for land-based projects. The PowerShark capitalizes on a patented resonant wave technology. Oscillating at a 3,000 rpm frequency with additional harmonics, the tool's cleaning head actually breaks the chemical bond between materials. In the process, even the most stubborn fouling falls away without damaging underlying surfaces. The completely waterproof tool operates both on land and underwater, with a 20' depth rating.

www.waveblade.com

Hella Shines Spotlight on Commercial Lighting

The recently released Commercial Vessel Lighting catalog from Hella marine offers operators a closer look at the company's products. Hella's advanced transport lighting utilizes the latest LED technology. The Commercial Vessel Lighting listing outlines the advantages of LED products for commercial vessels. Hella illumination provides efficiency while improving crew safety. All Hella marine lights, including the NaviLED PRO and DuraLed heavy duty lamps, offer outstanding UV and impact resistance, electromagnetic compatibility, an IP67 rating and a five-year warranty. Tables and diagrams assist in choosing the best products for each need.

www.hellamarine.com

PRODUCTS

Birns Develops New ABS Certified Optical Penetrators

BIRNS, Inc. recently developed a set of ABS certified fiber optic penetrators for a manned submersible. BIRNS, an ISO 9001:2008 certified developer of high performance connectors, custom cable assemblies, penetrators and lighting systems for the subsea market, engineered the exclusive penetrator design that included six single mode optical fibers. The robust penetrators were custom overmolded in BIRNS' NAVSEA PRO-020 certified molding facility, and feature low insertion loss of < .2dB and high return loss of >35dB. ABS worked with BIRNS to develop rules for witnessing the testing of the new design.

www.birns.com

STAUFF Hydraulic Tester Simulates Operating Conditions

The SDMKR reversible flow device by STAUFF rapidly and accurately monitors hydraulic components. The design allows simultaneous measurement of flow, pressure, and temperature, allowing personnel to determine the performance of pumps, motors, valves, or cylinders, as well as complete systems. The portable flow devices can be installed in both pressure and return lines. Two integrated burst discs act as an internal safety mechanism, effectively protecting the device against accidental overpressure. When the maximum pressure in the hydraulic system is exceeded, the discs break and the oil is transported through a bypass.

www.stauffusa.com

Bevelmachines' Inside Diameter Tracker

The Copier Bevelmachines factory and engineering department designs and manufactures pipe finishing machinery; primarily stationary pipe bevel machines. Located in The Netherlands, 95% of its market is export, more than 70% of the export is outside the EU. The stationary pipe bevel machines are manufactured in different types; all together they cover the range up to 48 inch OD. Building pipe bevelmachines with excellent price for value balance compared to the competition, one of the most sold machines is the Beaver 16S, in the range from 2.5 inch to 16 inch.

www.bevelmachines.com

Norton NortZon Plus wheels

Norton Abrasives has introduced an upgrade of their BEST-tier depressed center wheels for right angle grinding applications. Norton NorZon Plus wheels utilize a proprietary blend of Norton's patented, newest generation SG ceramic alumina and Norton BlueFireTM zirconia alumina abrasives, combined with a new high performance bond system for significantly improved grain micro-fracturing. The new Norton NorZon Plus line has also been expanded with the introduction of Norton NorZon Plus Fast Cut Depressed Center Wheels, which provide the fastest material removal in the industry. NorZon Plus wheels are U.S. invented and built.

www.nortonabrasives.com

Boatracs Debuts AIS Maritime Application

Boatracs BTConnect AIS (Automatic Identification System) extends the functionality of BTConnect, the most widely used vessel tracking and fleet management software in the U.S. commercial maritime market, by integrating real time messaging and vessel tracking with AIS data on a single display. The AIS Man Overboard (MOB) Alarm Notification System, a joint solution development effort between Boatracs and Orolia sister company McMurdo, is an innovative safety solution that enables distress signals from McMurdo's Smartfind MOB AIS beacons to be displayed on BTConnect software for accelerated emergency response.

www.boatracs.com / www.mcmurdomarine.com

Furuno Shatters $1,000 Price Point

Furuno has announced a price reduction for both the GP1670F and GP1870F GPS/Chart Plotter/Fish Finder Combo models. The GP1870F now has a MSRP price of $995, while the GP1670F is listed at $695. Both the GP1670F and GP1870F incorporate Furuno's professional-grade fish finding technology, a hi-accuracy GPS Receiver and full-featured C-Map Chart Plotter. Boasting a long list of advanced features, such as Bottom Discrimination, AccuFish, C-Map 4D Charts, Internal GPS, and a powerful 600W/1KW Fish Finder, this is the best overall product value Furuno has ever presented to the market.

www.FurunoUSA.com

STX Canada Marine purchases the FORAN System

STX Canada Marine (STXM), has signed a contract with Sener Ingeniería y Sistemas, S.A. (SENER) for the license to use the FORAN CAD/CAM System. After the implementation of FORAN in its headquarters in Vancouver, STXM is conducting a learning process during the summer focused in the early design process in 3D. STXM has acquired FORAN licenses covering Hull Forms, General Arrangement & Naval Architecture, Hull Structure, Machinery & Outfitting and Drafting and Drawing. FORAN enables STXM to cover the total process of the ship design in 3D, which is fundamental to improve the productivity and quality.

www.stxmarine.com / www.sener.es / www.foran.es

The Weldable PVC Decking System

World Panel Products, with Wilks, the manufacturer of Dek-King, the UV stabilized PVC decking system has announced a new welded seam version. Dek-King Weld allows fully welded panels to suit customer requirements. Dek-King Weld features a specially designed base offering dovetail grooves and a textured surface for superior adhesion. Dek-King Weld will be supplied as welded panels and will be available in 6 standard colors with custom colors available by special order. Wilks can now offer 2 full systems of synthetic decking; the new Dek-King Weld and the Dek-King Bond system.

SSP Corporation Adds 40 Series Ball Valves

SSP, a world-wide leader in stainless steel and nickel-based alloy fluid system components, assemblies and CNG fueling applications announces the addition of its newest line of 40 Series Ball Valves to its growing FloLok brand line of valves. The first sizes available will be the FloLok 41, 42 and 43 series valves, with end connections from 1/16" to 3/8", as well as corresponding metric sizes. Larger 44 and 45 series valves will be available later this year. Remote sensors can be mounted in handles to determine open/close position.

www.mySSPusa.com

UNITED STATES POSTAL SERVICE

Statement of Ownership, Management, and Circulation (Requester Publications Only)

1. Publication Title	2. Publication Number	3. Filing Date
Marine News	0 1 3 - 9 5 2	September 25, 2013
4. Issue Frequency: Monthly	5. Number of Issues Published Annually: 12	6. Annual Subscription Price (If any): None

7. Complete Mailing Address of Known Office of Publication (Not printer) (Street, city, county, state, and ZIP+4®): Maritime Activity Reports, Inc. 118 East 25th. St. New York, NY 10010 — Contact Person: Dale L. Barnett; Telephone (Include area code): 212-477-6700

8. Complete Mailing Address of Headquarters or General Business Office of Publisher (Not printer): Maritime Activity Reports, Inc. 118 East 25th. St. New York, NY 10010

9. Full Names and Complete Mailing Addresses of Publisher, Editor, and Managing Editor (Do not leave blank)

Publisher (Name and complete mailing address): John C. O'Malley, Maritime Activity Reports, Inc, 118 East 25th. St, New York, NY 10010

Editor (Name and complete mailing address): Joseph Keefe, Maritime Activity Reports, Inc, 118 East 25th. St, New York, NY 10010

Managing Editor (Name and complete mailing address):

10. Owner (Do not leave blank. If the publication is owned by a corporation, give the name and address of the corporation immediately followed by the names and addresses of all stockholders owning or holding 1 percent or more of the total amount of stock. If not owned by a corporation, give the names and addresses of the individual owners. If owned by a partnership or other unincorporated firm, give its name and address as well as those of each individual owner. If the publication is published by a nonprofit organization, give its name and address.)

Full Name	Complete Mailing Address
John C. O'Malley	Maritime Activity Reports, Inc. 118 East 25th. St. New York, NY 10010

11. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages, or Other Securities. If none, check box: → ☒ None

Full Name	Complete Mailing Address

12. Tax Status (For completion by nonprofit organizations authorized to mail at nonprofit rates) (Check one)
The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes:
☒ Has Not Changed During Preceding 12 Months
☐ Has Changed During Preceding 12 Months (Publisher must submit explanation of change with this statement)

PS Form **3526-R**, September 2007 (Page 1 of 3 (Instructions Page 3)) PSN: 7530-09-000-8855 **PRIVACY NOTICE:** See our privacy policy on www.usps.com

---

13. Publication Title: Marine News	14. Issue Date for Circulation Data Below: September 2013	
15. Extent and Nature of Circulation: Requester	Average No. Copies Each Issue During Preceding 12 Months	No. Copies of Single Issue Published Nearest to Filing Date
a. Total Number of Copies (Net press run)	25,821	24,268
b. Legitimate Paid and/or Requested Distribution (By Mail and Outside the Mail) (1) Outside County Paid/Requested Mail Subscriptions stated on PS Form 3541. (Include direct written request from recipient, telemarketing and Internet requests from recipient, paid subscriptions including nominal rate subscriptions, employer requests, advertiser's proof copies, and exchange copies.)	24,311	21,412
(2) In-County Paid/Requested Mail Subscriptions stated on PS Form 3541. (Include direct written request from recipient, telemarketing and Internet requests from recipient, paid subscriptions including nominal rate subscriptions, employer requests, advertiser's proof copies, and exchange copies.)	0	0
(3) Sales Through Dealers and Carriers, Street Vendors, Counter Sales, and Other Paid or Requested Distribution Outside USPS®	0	0
(4) Requested Copies Distributed by Other Mail Classes Through the USPS (e.g. First-Class Mail®)	1,013	461
c. Total Paid and/or Requested Circulation (Sum of 15b (1), (2), (3), and (4))	25,324	21,873
d. Nonrequested Distribution (By Mail and Outside the Mail) (1) Outside County Nonrequested Copies Stated on PS Form 3541 (include Sample copies, Requests Over 3 years old, Requests Induced By a Premium, Bulk Sales and Requests Including Association Requests, Names obtained from Business Directories, Lists, and other sources)	0	0
(2) In-County Nonrequested Copies Stated on PS Form 3541 (include Sample copies, Requests Over 3 years old, Requests Induced By a Premium, Bulk Sales and Requests including Association Requests, Names obtained from Business Directories, Lists, and other sources)	0	0
(3) Nonrequested Copies Distributed Through the USPS by Other Classes of Mail (e.g. First-Class Mail, Nonrequestor Copies mailed in excess of 10% Limit mailed at Standard Mail® or Package Services Rates)	158	1,000
(4) Nonrequested Copies Distributed Outside the Mail (Include Pickup Stands, Trade Shows, Showrooms and Other Sources)	244	1,100
e. Total Nonrequested Distribution (Sum of 15d (1), (2), (3) and (4))	402	2,100
f. Total Distribution (Sum of 15c and e)	25,726	23,973
g. Copies not Distributed (See Instructions to Publishers #4, (page #3))	95	295
h. Total (Sum of 15f and g)	25,821	24,268
i. Percent Paid and/or Requested Circulation (15c divided by 15g times 100)	98.4 %	91.2 %

16. Publication of Statement of Ownership for a Requester Publication is required and will be printed in the November 2013 issue of this publication.

17. Signature and Title of Editor, Publisher, Business Manager, or Owner: Dale L. Barnett, Circulation Dept. — Date: Sept. 25, 2013

I certify that all information furnished on this form is true and complete. I understand that anyone who furnishes false or misleading information on this form or who omits material or information requested on the form may be subject to criminal sanctions (including fines and imprisonment) and/or civil sanctions (including civil penalties).

PS Form **3526-R**, September 2007 (Page 2 of 3)

(Continued from page 47)

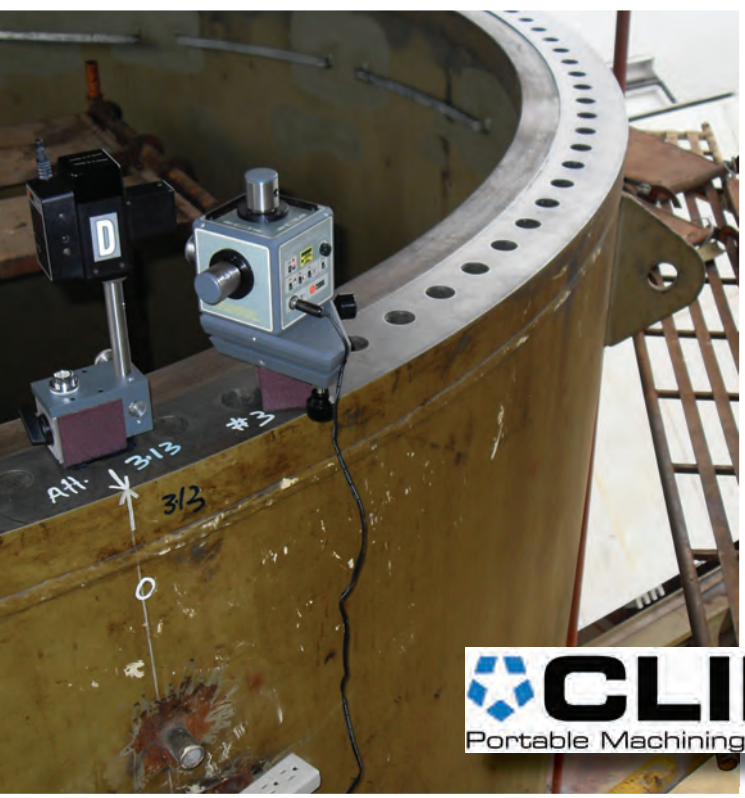
Here at home, Vigor Shipyards used an automated welding system that involved a stationary and portable machine in combination to repair long and narrow rudder and pintle bores that were severely corroded on a local Ferry. Because of the scope of the project and precision required, the ferry was in danger of being decommissioned, but the Climax solution got the ferry repaired ahead of schedule.

Key Climax Metrics: Portability and Flexibility

The new Houston location, naturally, has been very good for Climax, simple because of all that is going on in that region at this time. And, from that location, the ability to both rent out and sell equipment has been a valuable asset. The new Climax LM5200 and LM6200 portable milling and gantry machines are available for sale or rent worldwide, as are the company's other portable flange facers boring machines and valve repair machines. Corso added, "We provide equipment rentals through 32 distributors throughout the world. This has increased our footprint, not just here, but overseas as well." For customers, says Corso, the advantage of rental over ownership involves cost versus capital acquisition. "It depends on if the work tied to more than one project or is it a one-off deal. Really, it depends on the funding source." Climax offers financing, as well.

With these machines, precision milling, drilling and boring can be done more efficiently to meet tight tolerances in both linear and gantry milling configurations. Climax will modify equipment for a particular customer, working to sizing, type of power needed, etc. And, they offer training and engineering to help improve performance, productivity and profitability. Additional applications for these new portable milling machines include pump and motor mounts, compressor and heat equipment bases, exchanger faces, sole plates, sections of large surfaces, drilling and boring as well as other features on flat and rounded surfaces. Climax today holds 37 issued patents with four pending, and serves domestic and international markets through its own international offices and licensed representatives in 32 countries. Even for shipyards that are making money today, there's no reason why they can't improve that bottom line even further. For those less fortunate or working on tighter margins, the ability to improve processes now is even more critical. In good times or bad, economics will always play an important role in the shipyard. Similarly, portable, precision tools that perform a wide array of tasks will always play a key role in that equation.

Laser confirms 0.2 mm flatness



Climax FF8000 Portable Flange Facer being lifted to work piece

MASSACHUSETTS MARITIME ACADEMY

Founded in 1891, the Massachusetts Maritime Academy is the nation's oldest and finest co-ed maritime college. The Academy prepares young women and men for exciting and rewarding careers on land and sea. Our graduates have been at the very top of seagoing, engineering, environmental, and international business professions.

POSITIONS AVAILABLE

Training Ship 2nd Mate, Training Ship 3rd Mate, Marine Transportation Lab Technician, Engineering Lab Technician, Engineering Faculty, International Maritime Business Faculty, Capital Projects Manager, Motor Equipment Mechanic, HVAC Refrigerator Mechanic.

The Academy is located in Buzzards Bay at the mouth of the scenic Cape Cod Canal and is a special mission college within the Massachusetts university college system.

For information about this positions and how to apply, visit the employment quick link on our web page at **www.maritime.edu.**

Massachusetts Maritime Academy is an AA/EEO employer. Under-represented groups are encouraged to apply.

Bouchard Transportation Co., Inc.

2nd Tug Mate
Qualifications:
- Minimum of a 200 ton Mate Near Coastal with Radar Observer, TOAR, STCW and VSO endorsements
- TWIC
- GMDSS operator/maintainer a plus

Asst Engineer
Qualifications:
- Degree from Merchant Marine Academy or 3 year's experience working on tugs of at least 2,000 HP
- MMD DDE 1,000 to 4,000 HP
- STCW
- TWIC

Tankerman AB/Cargo Mate
Qualifications:
- Minimum of a AB Tankerman PIC (BARGE)
- STCW
- TWIC

Send all resumes to
personnel@bouchardtransport.com
Or Fax to **631-390-4966**

Inventory Manager - Chesapeake, VA

Job Location: USA, Chesapeake

Enviva is a leading supplier of sustainable wood biomass fuel in the United States and Europe. The company's mission is to become the preferred partner and supplier of sustainable biomass fuels to industrial and energy utility customers seeking to improve the environmental profile of their operations. Enviva has been supplying wood chips and wood pellets to customers in the United States and Europe since 2007. Enviva operating facilities will represent more than 1,750,000 metric tons per year of annual capacity by 2014.
The prospective Enviva employee will work in Chesapeake, VA performing duties involved in pellet inventory tracking and quality sampling.

Employee Duties -
- Scale Trucks 20 hours/week
- Fines/Ash Testing
- New pellet testing for customer deliveries
- Expedite / Test Bayou pellet samples
- Barge Sampling / Testing
- Barge Drafting
- After certification / training, the Enviva employee will draft all barges
- Coordinate inventory tracking
- Facilitate the use of an access database for entering and tracking all pellet deliveries to and from the port.
- Track all plant sampling by day, truck, and barge
- Coordinate with Enviva Quality Director to track daily sampling at each plant with the destination barge
- Track inventory through the Barge Tracking Dashboard and Shipping Schedule (Enviva reports)
- Serve as primary liaison for all deliveries and trucking issues

It is anticipated that the employee will receive training to become knowledgeable and/or certified in surveying ocean vessels. Compensation will consist of a competitive salary and benefits.

To apply, send your cover letter and resume to careers@envivabiomass.com

Jennifer Feinleib
Enviva
7200 Wisconsin Ave., Suite 1000
Bethesda MD 20814 USA
Email: careers@envivabiomass.com

Deputy Pilot in Florida

Job Location: USA, Key West, Panama City and Ft. Lauderdale
DEPUTY HARBOR PILOT OPENINGS IN FLORIDA

THE BOARD OF PILOT COMMISSIONERS HAS DECLARED
PILOT OPENINGS IN THE PORTS OF KEY WEST, PANAMA CITY AND PORT EVERGLADES. THE EXAM IS MARCH 13-14, 2014.

THE APPLICATION TO SIT FOR THE EXAM IS DUE MONDAY, DECEMBER 9TH, 2013.

For details and application, go to:
www.myfloridalicense.com/dbpr/pro/pilotc/index.html

OR CALL 850.717.1980 OR EMAIL elise.rice@myfloridalicense.com.

Board of Pilot Commissioners
State of Florida

FL USA
Phone: 850.717.1980

Email: elise.rice@myfloridalicense.com
Web: http://www.myfloridalicense.com/dbpr/pro/pilotc/index.html

Marine Marketplace

VESSELS FOR SALE / BARGES FOR RENT

NEW PRODUCTS

Marine Marketplace

NEW PRODUCTS

PROFESSIONALS

ADVERTISER INDEX

Page	Company	Website	Phone#
37	Advantec Global Innovations	www.advantecglobal.com/marine	Visit us online
25	AER Supply	www.aersupply.com	(281) 474-3276
44	Ahead Sanitation	www.aheadtank.com	(337)237-5011
17	AZZ Galvanizing Services	www.azzgalvanizing.com	Please visit our website
37	Breaux Bay Craft	Please call us at	(337) 234-6110
35	CS Unitec	www.csunitec.com	(800) 700-5919
35	DeFelsko	www.defelsko.com	(315) 393-4450
7	Engines Inc	www.enginespower.com	(504) 620-9800
21	Great American Insurance	www.gaic.com	(212) 510-0135
19	Gulf Copper	www.gulfcopper.com	(281) 599-8200
23	Hilliard Corp.	www.hilliardcorp.com	(607) 733-7121
25	John Deere Power Systems	www.johndeere.com/marine	Visit us online
17	Kidde-Fenwal, Inc	www.kiddefiresystems.com	(508) 881-2000
3	Kohler Power Systems	www.kohlermarine.com	(877) 910-8349
5	KVH INDUSTRIES	www.kvh.com	(401) 847-3327
13	Louisiana Cat	www.louisianamachinery.com	(866) 843-7440
51	Mariner's House	www.marinershouse.org	(617) 227-3979
29	McDonough Marine Services	www.mcdonoughmarine.com	(800) 227-4348
47	Messer Cutting Systems	www.messer-cs.com	(262) 255-5520
C2	Modutech Marine	www.modutechmarine.com	(252) 272-9319
23	MOP's Marine License Insurance	www.mopsmarineinsurance.com	(800) 782-8902
C4	R.W. Fernstrum	www.fernstrum.com	(906) 863-5553
31	Rustibus	www.rustibus.com	(832) 203-7170
1	Scott Safety	www.scottsafety.com/marine	(704) 291-8300
21	Senesco Marine	www.senescomarine.com	(401) 226-1042
43	Smith Berger Marine	www.smithberger.com	(206) 764-4650
43	SUNY Maritime College	www.sunymaritime.edu	(718) 409-7341
45	Superior-Lidgerwood-Mundy, Corp.	www.lidgerwood.com	Visit us online
16	Tampa Yacht Manufacturing, LLC	www.tampa-yacht.com	(727) 954-3435
11	TideWater Marine	www.tdw.com	(504) 568-1010
48	Tutor-Saliba	www.tutorsaliba.com	(818) 362-8391
9	Volvo Penta Americas	www.volvopenta.com	Please visit our website
15	Waterman Supply	www.watermansupply.com	(310) 522-9698

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: productionmanager@marinelink.com

Marine News 2014 Editorial Calendar

ISSUE	EDITORIAL	BONUS DISTRIBUTION
JANUARY **Ad Close:** Dec 12	**Tug Boat Technology** Market: Training & Education Technical: Arctic / Cold Weather Operations Product: Winches, Ropes & Cranes	**Arctic Technology Conference** Feb. 10-12 – Houston, TX **PVA/Maritrends** Jan. 18-21, Houston, REGIONAL FOCUS: Gulf Coast
FEBRUARY **Ad Close:** Jan 15	**Combat & Patrol Craft Annual** Market: U.S. Coast Guard Technical: Outboard / Thrusters & High-Speed Propulsion Product: Fire & Safety Equipment	**ASNE Day** Feb. 20-21 – Arlington, VA
MARCH **Ad Close:** Feb 13	**Fleet & Vessel Optimization** Market: Naval Architecture & Design Technical: Propulsion & Emissions Management/Control Product: Water Treatment & Technology MaritimePropulsion.com	**CMA Shipping 2014** March 17-19 – Stamford, CT **AWO Spring Convention & Meeting** April 1-3 – Washington, DC
APRIL **Ad Close:** March 13	**Shipyard Report: Construction & Repair** Market: Push Boats & Barges Technical: Marine Communications MarineElectronics.com Product: Oil Pollution: Prevention & Response	**Workboats Exchange** April 13-16 – Bonita Springs, FL **Sea-Air-Space** April 7-9 – National Harbor, MD
MAY **Ad Close:** April 15	**Offshore Annual** Market: Fire, Patrol & Escort Craft Technical: Maritime Security Product: Interior Outfitting / Design / HVAC	**OTC Houston** May 5-8 – Houston, TX **SeaWork** June 10-12 – UK
JUNE **Ad Close:** May 15	**Dredging & Marine Construction** Technical: Salvage & Response Product: Marine Training Facilities Special Section: Marine Photo Contest	**HiperCraft Show** June – Virgina Beach, VA REGIONAL FOCUS: Great Lakes
JULY **Ad Close:** June 13	**Propulsion Technology** MaritimePropulsion.com Market: ATB Technical Trends Technical: Deck Machinery & Cargo Handling Equipment Product: Marine Coatings & Corrosion Control	REGIONAL FOCUS: East Coast
AUGUST **Ad Close:** July 15	**MN 100 Market Leaders** Market: Passenger Vessels & Ferries Technical: Navigation & E-solutions MarineElectronics.com Product: Safety & Prevention	
SEPTEMBER **Ad Close:** Aug 14	**Inland Waterways** Market: Specialty Workboat Missions Technical: Cordage, Wire Ropes & Rigging Product: Inland Boat Builders	
OCTOBER **Ad Close:** Sept 15	**Innovative Products & Boats – 2014** Market: Security Workboats Technical: On Board Communications MarineElectronics.com Product: CADCAM Software	**SNAME** Oct. 22-24, Houston **ShippingINSIGHT** Stamford REGIONAL FOCUS: Inland Rivers
NOVEMBER **Ad Close:** Oct 15	**Workboat Annual** Market: Lubricants, Fuels & Additives Technical: Pumps, Pipes & Valves Product: Marine Propulsion MaritimePropulsion.com	**International Workboat Show** Dec. 3-5 – New Orleans, LA **Clean Gulf** Dec. 2-4, San Antonio REGIONAL FOCUS: U.S. West Coast
DECEMBER **Ad Close:** Nov 15	**Salvage & Spill Response** Market: Software - Fleet Management Technical: SATCOM for Workboats Product: Workboat Supplier's Guide	

** The publisher reserves the right to alter this calendar. All features are subject to change in light of industry trends and developments.*

ENGINEERED COOLING SOLUTIONS.

OVER 65 YEARS COOLING THE MARINE INDUSTRY

R.W. Fernstrum is committed to providing long-lasting, quality cooling systems. Our engineers work with you to custom design a solution that meets the needs of your vessel and operating conditions.

fernstrum.com
906.863.5553
sales@fernstrum.com

FERNSTRUM™
R.W. Fernstrum & Company