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Marine News

DECEMBER 2012
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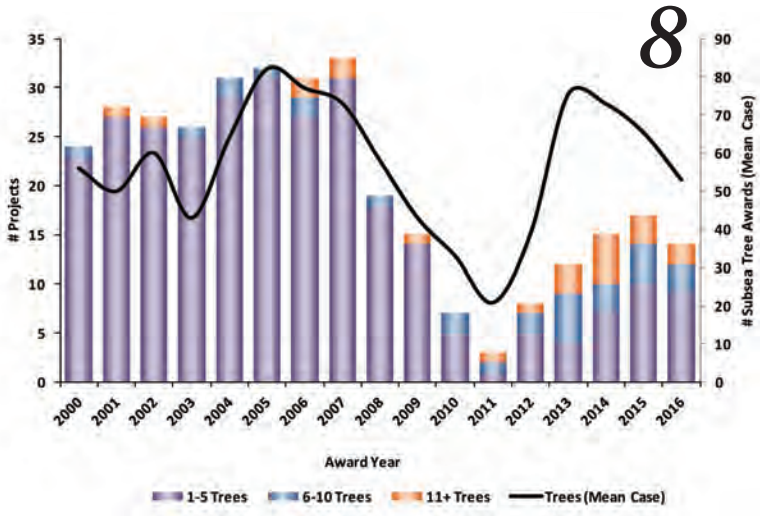




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POSTMASTER Time Value Expedite

On the Cover

28 Great Boats

In September, Bollinger Marine Fabricators delivered the B. No. 250, a newly designed and constructed 55,000 barrel OPA'90 compliant tank barge to Bouchard Transportation Co. The high tech barge is representative of the many innovative and forward thinking designs that have emerged in the past year. MarineNews' annual INNOVATIVE BOATS features starts on page 28.

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EDITOR'S NOTE

keefe@marinelink.com

Changing Course for marine business – especially in the domestic brown water markets – has never been easy, nor has it come quick. Maybe that's why when concepts such as LNG propulsion, offshore wind and Arctic operations suddenly loom large in the proverbial porthole; they seem that much more exciting. This year, however, the pace of change did accelerate for all three areas. You can look for more of that in the year to come.

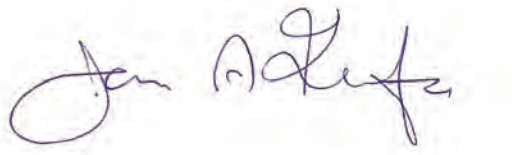
The theme of LNG propulsion and logistics was common to many of this year's Best Boat designs, but not all. That said; it is clear that 2012 was the year that the "talk" about domestic LNG finally turned into the "walk" for a number of forward-thinking maritime players. The worries over logistics and LNG bunkers look to be largely unfounded as this year's plans move ahead to reality in coming months. I don't think it is a stretch to say that there is an incredible amount of innovation on the water, in the yard and on the drawing boards at this time.

Our December edition of ***MarineNews*** always takes a look back at the best boats delivered over the course of the past year. This year, we added another twist by including those design concepts which, although not yet delivered by any shipyards, were also significant developments in the world of brown water boatbuilding. There were many noteworthy designs that emerged over the course of 2012; each exciting in their own way, bringing utility, beauty, economy and environmental excellence to the water.

If 2012 was about groundbreaking designs and the advent of LNG in brown water, then 2013 may well be the year that the domestic waterfront sees its first offshore wind project. Inside, ***MarineNews*** columnist Susan Buchanan lays out a course line for offshore wind players, and also points out that some North American firms are already in the game. Like LNG, offshore wind has, on this side of the pond, long been talked about but never come to fruition. That's about to change, too.

Half a world away, the Arctic is – no pun intended – heating up with action of its own. Commerce and energy exploration are already there. Sadly, the infrastructure to support it and respond to a major casualty is not. Weighing in from NOAA, Dave Westerholm's refreshingly balanced look at what needs to be done, and more importantly, how to do it, is therefore a must-read.

Just before sitting down to put the final touches on this edition, I read a particularly dire report that predicted difficult times ahead for global shipyards. Looking at all that is happening here at home, I can't help but think that the exact opposite is true for the markets served by ***MarineNews*** magazine. LNG, the Arctic, offshore wind and some aggressive domestic fleet renewal programs all point to another conclusion. These changes bring renewed excitement to a sector that, quite frankly, sorely need it. As it all unfolds, you will read about it right here. See you in 2013.



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Deepwater Gulf of Mexico: Bright Future

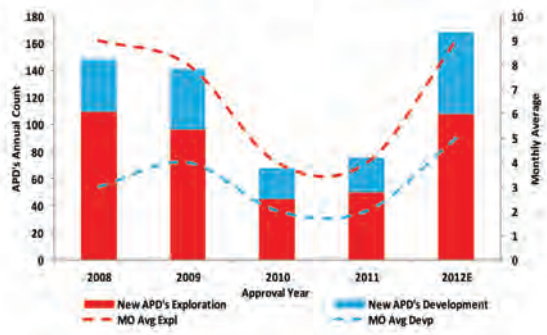
Quest Offshore characterizes the U.S. Gulf of Mexico as a deepwater region that is *"Transitioning into a Bright Future."* According to the recently released 116-page *Quest Deepwater Review Gulf of Mexico* report, the Gulf of Mexico has experienced massive changes in the last 5 years with long-term implications for the region and the wider deepwater oil and gas market. The worldwide financial crisis and subsequent recession, shale gas' implications on U.S. natural gas prices, the Macondo incident and changes to the regulatory regime have been the prime movers.

Recent discoveries of large deep and ultra-deepwater reserves have drastically increased the reserve and production expectations of the region. Five years ago, the Gulf of Mexico was a region with a mix of major and independent operators executing standalone and subsea tiebacks gas and oil projects. Today, oil dominates the region with offshore gas all but unable to compete in a sub $4/mmcf gas price environment. Many independent operators have exited the region, but some major operators and large independents have increased their exposure, betting on ultra-deepwater projects that promise significant rewards and equally large risks. But, continues Quest, the almost two year halt to drilling activity will have long-term consequences for local industry.

Local investment during the drilling moratorium was helped by the execution of capital intensive stand-alone floating production developments that were delayed from 2008-2010. These projects moved forward without the need of additional drilling. Meanwhile, the mix of well permits for multi-well developments compared to exploration has shifted significantly over the past few years, leading to concerns about the long-term effects of regulatory changes on the future of the region. While major operators have moved past the effects of the drilling moratorium and economic crisis, some smaller independents have moved ashore. At the same time some national oil companies (Petrobras) are exiting the Gulf while new players (Statoil) emerge.

Drilling Market Accelerating: Drilling permit approvals are showing noticeable increases over the past six months with total counts back to pre-Macondo levels. By the end of September, 78 new exploration drilling permits and 36 new development drilling permits were approved over the year. Notable discoveries of ultra-deepwater fields in the Lower Tertiary continue to increase the reserve and production expectations for the region.

Figure 11: Deepwater Drilling Permit Approvals (2008-2012)



The shift in the Gulf is most apparent in the floating rig market with four operators now possessing 50 percent of the contracted rig fleet. The water depth capability shift in the region to favor ultra-deepwater rigs is also significant with 90 percent of rigs operating now ultra-deepwater rigs whereas five years ago 50 percent of rigs were mid-water or deepwater floaters (segments that now make up less than 10% of the contracted fleet). Leasing activity shows similar trends.

Table 9: Ultra-Deepwater Operators – 7500ft+

Top 10 –ULTRA-DEEP	LL	WR	DC	KC	AT	AC	AM	SE	MC	LU	GC	Total	Percent of Ultra-deep (679)
Shell Oil Company	17			39		3	44	8	11		16	138	20%
Anadarko Petroleum			19	20	1	4	41	2	2	6	7	102	15%
BP Exploration & Production	1	6	1	1	1	19		3		3	12	47	7%
Petrobras America Inc.				3	1	15	3		3	1	18	44	6%
Exxon Mobil Corporation	4	11	3			12					10	40	6%
Eni Petroleum U.S. LLC		1	2	9		5	2			5	12	36	5%
Maersk Oil Gulf of Mexico		2				9				6	18	35	5%
Murphy				18			16					34	5%
Statoil	6			12					4		6	28	4%
Chevron U.S.A. Inc.	5	1		1		12					9	28	4%
Top 10 Operators	33	21	25	103	3	79	106	13	20	21	108	532	78%

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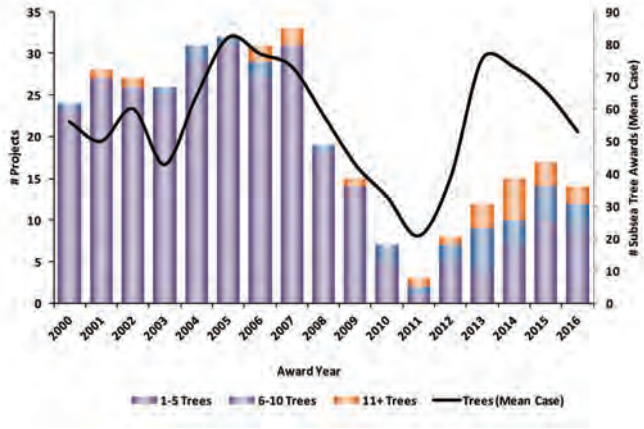
Spending is expected to increase significantly starting in 2013 with spending expected to be up 30 percent to $40 billion. Overall expenditures are expected to reach a massive $167 billion between 2013 and 2016. In 2012, deepwater capital and operational expenditures are expected to surpass shallow water capital and operational expenditures for the first time. The deepwater floating and pipeline infrastructure being installed, coupled with the next wave of infrastructure expected to be deployed, will provide development opportunities and establish the next generation of production facilities to support the hub-and-spoke development concept.

Led by the rising number of forecast world class capital projects, availability for high-end marine construction vessels is expected to tighten considerably even within the growing supply base. Over 5,000 km of pipelines are forecast through 2016, a more than 25 percent gain from the previous five years. At year-end 2011, sixty-three thousand metric tons of floating production system (FPS) topside orders were tabulated, marking the highest level in recent years. Moreover, spending on Spar FPS types is projected to increase four-fold to $6.4 billion over the forecast period (2012-2016) compared with the previous five years. Similarly, spending on semi-submersible platforms is forecast to grow to $3.3 billion a nearly 250 percent increase sequentially.

The decommissioning sector in the region is also expected to see a major transformation. Decreased shallow-water installations coupled with high activity driven by recent major hurricanes and the government's idle iron policy are expected to lead to a larger number of abandonments and a rising trend for decommissioning opportunities. The significant challenges in deepwater removals and abandonments (subsea wells and structures) will translate into higher value contracts than the shallow water work, lending a brighter outlook for companies involved in this market.

Robust Outlook for Deepwater Development. Since 2008, the U.S. Gulf of Mexico has undergone a shift in project development mix from heavy in small, independent--operated subsea tiebacks to one that is grounded in fewer, larger subsea tiebacks and high--investment stand alone developments developed by international oil companies and mega--independents.

Figure 27: U.S. Gulf of Mexico Project Profile by Subsea Tree Count (2000-2016e Award Year)



Risks to the regions' future include the uncertain global macro-economic outlook and the implications of government regulations. Nevertheless, operators and contractors dedicated to the region are expected to prosper in the coming years. Those players unable to adapt to the new realities of the region are expected to struggle while those with other, global interests will continue to move out of the Gulf. Also according to Quest, the Gulf of Mexico is expected to continue to be one of the leading deepwater regions in the world for the foreseeable future and to continue to provide a safe source of domestic energy for the United States.

Todd M. Hornbeck

Chairman, President and Chief Executive Officer, Hornbeck Offshore Services, Inc.

While this month's selection for our INSIGHTS feature needs no introduction to maritime and energy insiders everywhere, Todd Hornbeck's professional journey is worth pausing to reflect upon. Hornbeck, Chairman, President and Chief Executive Officer of Hornbeck Offshore Services, Inc. (NYSE:HOS), founded the company in 1997. Until 2002 Mr. Hornbeck served as the President and Secretary of the company, when he was appointed Chief Executive Officer and then, Chairman of the Board in 2005. Hornbeck also worked for the original Hornbeck Offshore Services until 1996, serving in various positions related to business strategy and development. Following the merger of Hornbeck Offshore Services, Inc. with Tidewater in March, 1996, he accepted a position as Marketing Director – Gulf of Mexico with Tidewater, where his responsibilities included managing relationships and overall business development in the U.S. Gulf of Mexico region. He remained with Tidewater until the formation of Hornbeck Offshore Services, Inc. Today, Hornbeck serves as Chairman of Offshore Marine Service Association (OMSA) and Vice Chairman of the International Support Vessel Owners' Association (ISOA). Follow along as he shows the way forward for Hornbeck Offshore Services, its customers, and the global energy industry.

Already operating one of the youngest and largest fleets in the water, Hornbeck is nevertheless pressing forward with an aggressive newbuild program. What's the primary driver for this business decision?

Quite simply it is the evolving needs of our customers. We are not about growth for growth's sake. We continue to strategically grow by anticipating our customers' evolving needs and expanding the capabilities of our fleet to address those requirements. Our company was founded with a focus on the deepwater and ultra-deepwater markets, and as exploration and production activities expand further offshore and at greater well depths we believe our fleet must also continue to evolve. We see a flight to quality assets and operators and growing demand for larger, more capable vessels.

Have you looked at LNG / Dual-Fuel power options for your vessels? Why are you choosing a different route for your tonnage?

We currently view LNG/Dual-Fuel powered supply vessels as a niche market, as only a few customers in our core markets have expressed interest in this solution. Their interest appears to be more driven by developing an alternative market for LNG than operational requirements. We have however evaluated LNG/Dual-Fuel alternatives

and actually participated in a tender earlier this year. Based on our experience, it is clear there is a significant cost premium to construct and operate these vessels but we have not seen a corresponding premium in the day rates. Accordingly, we believe the route we have chosen is in the best interests of our customers, employees and investors.

People always talk safety – you produce results. Your fleet owns a better total recordable incident rating (RIR) than most of your peers, as well as OMSA and IADC benchmarks. What's your secret?

There is no "secret sauce." It requires an ongoing and significant investment in people and commitment from all levels of the company – most importantly a personal commitment to behave safely. It requires a relentless desire to drive toward zero incidents. Every year we have a large number of our vessels work incident free so we know "target zero" is an attainable goal. It also requires a commitment to "stop work" when conditions exist that unnecessarily increase the risks of injuring people or damaging the environment or property.

Spanning 9 geographic markets and six service lines, your market focus is diversified, but more than 50% of your equipment is U.S.-based. Where do you see those numbers in one year? Five years?

We believe our vessels can perform anywhere in the world. We will mobilize our vessels to markets that we believe over time will offer our investors the greatest return. Our focus has been on deepwater and ultradeepwater so we expect over time our core markets will remain the U.S. Gulf of Mexico, Brazil and Mexico. There are other international markets we will continue to work in opportunistically and further evaluate as we deliver our newbuilds. We will continue to participate in the construction, inspection, maintenance and repair markets. We will also continue to pursue specialty niches where innovative solutions are required and valued accordingly.

Regarding your newbuild program, you project that your already substantial fleet will grow by 75%by 2015. Quite simply, can the market sustain that kind of growth? If so, why and how?

We currently operate 51 offshore supply vessels and 4 multipurpose support vessels. We have 20 vessels under construction with options to build 44 additional vessels. We currently rank number 4 in the global new generation supply vessel market (152 companies and 1,132 vessels including 291 under construction) based on deadweight tonnage (6% of the total deadweight – roughly the same as Tidewater and Bourbon or in other words a three-way tie for 2nd in the world). Our core markets represent 41% of the world's deadweight tonnage and we have a leading position in each of those core markets (#2 U.S. GoM, #6 in South America, and #4 in Mexico). The deadweight tonnage of our fleet will grow by more than 75% by 2015. There are a number of reasons why believe the market can sustain our anticipated growth. There are some macro factors that lead us to this conclusion including nearly 100 high-specification floating drilling rigs that are under construction. Also, it is not just the number of vessels but the types of vessels that will be required. Nearly 90% of the forecasted floating rig demand is in water depths of more than 3,000 feet and nearly 60% of the demand is depths exceeding 5,000 feet. These leading indicators, including projected growth in deepwater capital expenditures by our customers and the imbalance between depletion, production and consumption of hydrocarbons, suggest that larger and more capable vessels will be required to explore and develop more remote areas and at greater well depths.

As the "Flight to Quality" takes hold, is the oil & gas industry finally ready to pay for high-tech, fully modern tonnage while eschewing lower cost marginal players? In other words, is "going green" finally producing "green" for your bottom line?

In certain regions of the world, such as the U.S. Gulf of Mexico, we do see the "flight to quality." We also expect it to see it evolve in other markets, such as Brazil. However, it is much more than just "going green." It is more about total quality – people, equipment and performance. That level of quality requires a significant investment of resources. At the end of the day, we believe there will be fewer companies capable of consistently meeting the ever-increasing standards of our clients and the regulators of our industry, who in some cases have exacerbated the shortage of available human capital. Furthermore, costs continue to escalate so at this stage most service companies are simply trying to preserve their margins. So while there is a migration to higher quality operators and equipment, the bottom line will be driven by more favorable supply / demand drivers and cost control / awareness.

Your loyalty to U.S. yards in your newbuild programs is remarkable, especially when some of these hulls may someday be flagged out and deployed in foreign markets. You insist that pricing here is comparable

"We currently view LNG/Dual-Fuel powered supply vessels as a niche market, as only a few customers in our core markets have expressed interest in this solution. Their interest appears to be more driven by developing an alternative market for LNG than operational requirements."

to foreign yards – how did you achieve this and what else went into your decision process?

We believe the pricing we have received from the U.S. shipyards for our new construction program is competitive on a global basis. At approximately $7,500 per deadweight ton, we are at an attractive cost basis for new 280 and 300 class vessels. The scale and timing of our program provided us with valuable opportunity. However, price is not the only variable. We have added "optionality" by constructing vessels that qualify for coastwise trade under the U.S. Jones Act. Quality and schedule also are important variables in determining value and we believe the scale of our program, and the proven designs and shipyards we have selected, offer the greatest value to our investors. It was important to us that the vessel deliveries occur in 2013-2015, when nearly 60 newly constructed floating rigs are expected to enter the market.

You tout a diversified fleet mix of Multi-class OSV and MPSV tonnage that is capable of serving clients "from cradle to grave." But, what does that mean exactly?

It means we have a fleet of diverse marine equipment that is capable of meeting many of our clients' requirements across their enterprise. Our smaller, DP-1 vessels provide support to production activities while our larger DP-2 vessels support drilling operations. We have multiple vessels performing well stimulation services. Our DP-3 MPSVs support construction, inspection, maintenance and repair in addition to well intervention and decommissioning activities. Our 370 class vessels are the only vessels in the world multi-certificated by the U.S. Coast Guard as supply vessels, industrial / freight vessels, chemical tank ships, and oil spill response vessels. We expect our 300 class vessels will also fulfill multiple roles in the exploration and production cycle.

Leading Industry towards Offshore Excellence

By Jim Watson, Director Bureau of Safety and Environmental Enforcement, U.S. Department of the Interior

Working offshore can be dangerous business. Miles from shore with nothing but water in all directions, offshore crews perform highly complex operations with little margin for error, and the potential for severe consequences if something goes wrong.

We were reminded of this just a few weeks ago, when an explosion and fire aboard a shallow-water production platform offshore Louisiana on November 16 resulted in the tragic deaths of two confirmed crewmembers and severe injuries to many others. Something went horribly wrong on board the platform that day, and as a result, people who were just trying to do their job will never make it home to their families. The Bureau of Safety and Environmental Enforcement (BSEE) is investigating the incident thoroughly, and will use the lessons learned from this event in order to help prevent loss of life and injuries from future accidents.

Our primary goal is to ensure that all offshore operations are being completed safely. One of the lessons that we all learned from the many investigations following the Deepwater Horizon explosion and resulting oil spill is that strong regulations alone are not sufficient to guarantee safe operations. The industry needs, and BSEE has been actively promoting, a hybrid approach that utilizes strong regulatory oversight while at the same time working to institutionalize a culture of safety and environmental responsibility within operators across the offshore industry.

Throughout my first year as the Director of BSEE, I have been committed to leading the offshore industry to focus on the continued growth of a robust safety culture that truly embodies the concept that safety is the responsibility of everyone at all levels, at all times. We can and should all work together to prevent future accidents from occurring.

In order to help grow a positive safety culture offshore, BSEE has worked closely with operators to advance our shared goal of enhancing both the safety of operations and the environmental stewardship of offshore oil and gas activities. One way we have done that is to implement Safety and Environmental Management Systems (SEMS) for offshore operators, which are performance-based regulations that help to reduce the likelihood of another event like the Deepwater Horizon.

We have established four principles for our SEMS program. These include:

- *Focusing attention on the influences that human error and poor organization have on accidents;*
- *Continuously improving the offshore industry's safety and environmental records;*
- *Encouraging the use of performance-based operating practices; and*
- *Collaborating with industry in our ongoing efforts to promote offshore worker safety and environmental protection.*

SEMS adds greater protection by increasing employee training and engaging personnel in safety management. All operators are required to submit performance data to BSEE. This information is compiled and used to provide us

with information about performance trends while also allowing operators the ability to compare their performance with industry "averages." One of our goals is to be able to gather more information on near-misses, so that the offshore industry doesn't have to wait for an accident to occur in order to learn how to increase safety. SEMS is an ongoing process and I'm looking forward to continuing this work with operators so that we can all work to maintain the trust of the American people.

The efforts undertaken over the past year have been part of President Obama's goal of expanded responsible production of our domestic energy resources while ensuring the strongest possible safety and environmental oversight of offshore oil and gas activities. Actions ranging from the issuance of a Final Drilling Safety Rule to updated oil spill response plan guidance have provided offshore operators with greater clarity and consistency. Together, we have a shared commitment to reduce the risks associated with drilling in the United States.

Offshore exploration and development will remain a perilous endeavor and regardless of how well our regulatory system operates, we will never be able to remove all of the risk. What I am hopeful of is that offshore operators will continue to work with BSEE on the continued development of a strong and dynamic safety culture that will evolve with the industry's continued push into deeper waters and the use of increasingly complex technology. BSEE will continue to grow and keep pace with these changes while maintaining the highest standards of safety so that we can lead the industry toward offshore excellence.

Rear Admiral James A. Watson IV *was named as the Director of the Bureau of Safety and Environmental Enforcement (BSEE) in November of 2011. BSEE was one of the two agencies to succeed the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) on Oct. 1, 2011. Previously, Watson served as the U.S. Coast Guard's Director of Prevention Policy for Marine Safety, Security and Stewardship. Prior to that, he served as Federal On-Scene Coordinator for the response to the Deepwater Horizon oil spill in the Gulf of Mexico.*

The Continued Pressing Need for Responder Immunity Enhancements

By Jon Waldron

It has been over 2.5 years since the tragic incident involving the Deepwater Horizon occurred, resulting in the deaths of 11 and injuries to 17 men working on the platform and the discharge of approximately five million barrels of oil. The cleanup response required thousands of responders working several months to contain and clean up the spill under challenging conditions. In addition, immediately following the explosion emergency response vessels rushed to the rig to save lives and render assistance to those in peril. Despite these commendable efforts, emergency and cleanup responders were sued for their efforts to help in the worst environmental disaster in U.S. history. And, to date, there has been no specific Congressional spill-related legislation enacted to address pitfalls identified related to the incident.

Given the protracted and costly litigation filed against responders after the Deepwater Horizon incident, action should be taken to amend responder immunity laws under the Oil Pollution Act of 1990 in order to provide enhanced protection against future lawsuits. This action will ensure the resources needed to respond to national emergencies and mitigate the effects of future large spill incidents, will not only be available to respond, but also that these resources will respond immediately and boldly without fear of high litigation costs and liability.

Responder Immunity Today

Responder immunity protections were enacted following the Exxon Valdez incident in 1989 to protect from liability those individuals or corporations who provide care, assistance, or advice in mitigating the effects of oil spills. This immunity, however, does not prevent any injured parties from recovering their full damages resulting from the spill incident, as OPA 90 provides that the responsible party is liable for any of the removal costs or damages that a responder is relieved of pursuant to this immunity. This immunity does not apply if a responder acts with gross negligence or willful misconduct, or causes personal injury or wrongful death. 33 U.S.C. 1321(c)(4).

Status of the Litigation against Responders

Unfortunately, the current immunity regime specific to responders has proven inadequate to protect responders from such suits. For example, plaintiffs have learned to simply make allegations of gross negligence, and to cast exposure claims (e.g., claims resulting from alleged exposure to released oil or from the Environmental Protection Agency-approved dispersants used to treat that oil) as personal injury claims falling outside the scope of the specific responder immunity provisions. This litigation has indeed been expensive for the responders. These lawsuits were consolidated in Multi-District Litigation in the Eastern District Court of Louisiana before Judge Barbier. The cases have been catalogued into pleading bundles which were filed on December 15, 2010. Response defendants were placed in a "B" bundle.

A B(3) pleading bundle named as defendants all parties involved in post-explosion response actions ("the Responder Bundle") which includes the manufacturer of the dispersants used, the companies providing the aircraft spraying dispersants, the contractors leading the incident command for BP, as well as the nation's two leading oil spill response contractors (the "Cleanup Responders"). The Responder Bundle complaint alleges various torts causing personal injury as a result of exposure to oil and/or dispersants and damages to personal and real property as a result of dispersants or oil coming into contact with such property.

A separate B(4) pleading bundle named as defendants the owners and/or operators of rescue vessels that answered the Deepwater Horizon distress call and responded to the fire emergency after the explosion ("the Emergency Responders"). Certain plaintiffs asserted claims against these good samaritan Emergency Responders arising out of the rescue efforts that took place under the direction and control of the United States Coast Guard and/or the RPs.

These actions against the responders to this incident are troubling because the responder immunity regime is intended to protect responders from extensive and costly litigation and potential liability. The Emergency

Responders were successful in obtaining a dismissal from the lawsuit on October 12, 2011. However, although the Cleanup Responders have argued for immunity and preemption against liability as it relates to the Deepwater Horizon claims asserted against them in the current litigation, these defenses are proving to be time-consuming and expensive to assert, and there is (under the current regime) no consequence to plaintiffs for bringing claims against Cleanup Responders, even when they have full recourse against the RP. As a result, the Cleanup Responders continue to defend against these claims for an incident that occurred over 2 ½ years ago. Thus, the current MDL demonstrates the need for enhanced legislative protections for the responders relating to all oil spills, including the Deepwater Horizon spill, to eliminate and avoid the use of unnecessary litigation against responders.

Absent some enhancement to the responder immunity protections, it is doubtful that Cleanup Responders or Emergency Responders will again take such immediate and bold response actions at the time of spill incidents absent special indemnities or other protections. A legislative solution is particularly important as these entities constitute the first responders to both the casualty itself and the resulting oil spill and their response must be immediate and without hesitation for fear of liability. If Deepwater Horizon Emergency Responders can be sued for responding to a mayday distress call and lending assistance as directed by the Coast Guard and representatives of the RPs, and if Cleanup Responders can be sued for applying dispersants when: (i) they were applying a dispersant that was (and remains) approved by the EPA for use, and (ii) each day's application was consistent with Incident Action Plans approved by the Coast Guard (i.e., the Federal On-Scene Coordinator), then when future responders are asked to respond to a disaster, they will likely not respond so quickly, if at all, thus exacerbating the effects of the spill.

For all of these reasons, it is important that the RP, not the responders, bear the costs of litigation and ultimately the liability related to the spill incident.

Responder Immunity Coalition and Legislative Enhancements

As a result of the above described situation, the response industry formed a coalition to propose to Congress enhancements that would address the identified gaps in the current responder immunity regime. The current coalition includes representatives from the salvage industry, response industry, spill management industry, and marine well containment industry.

The coalition has been working with key members of Congress to sponsor this effort. Enhancements currently under consideration by Congress include the following measures:

- *Expand the scope of the current version of responder immunity to provide immunity for personal injury or wrongful death and immunity from civil or criminal penalties.*
- *Provide that a responder shall share derivatively in the Government's immunity with respect to a response.*
- *The immunity would not apply to a land-based hazardous substance spill, or if the person is grossly negligent or knowingly engages in misconduct.*
- *Define with specificity the term "responder" and the types of response actions covered by the immunity.*
- *Provide a "presumption" that any response action or omission does not constitute gross negligence or knowing misconduct.*
- *Provide that a person filing a claim against a responder must pay court costs and attorneys' fees if the court determines that the responder was not grossly negligent or engaged in willful misconduct.*

Status of Legislative Effort

The House passed its version of the Coast Guard and Maritime Transportation Act of 2011 (H.R. 2838) on November 15, 2011 and the Senate passed its version of H.R. 2838 on September 22, 2012. Currently there is not specific language included in either the House or Senate versions of H.R. 2838 but there are oil spill-related provisions in both the Senate-passed and House-passed versions. Thus, the coalition working with Congress to include these responder immunity enhancements in H.R. 2838 or some other bill that will be enacted by the end of 2012 or early in 2013.

Jonathan Waldron *is Chairman of the ASA Legal Committee. He concentrates his practice in maritime, international, and environmental law, including maritime security. Mr. Waldron is a visiting professor at the Massachusetts Maritime Academy where he teaches on legal issues related to pollution response and spill management teams. He is a member of the Maritime Law Association and frequently speaks and writes on maritime issues.*

The Challenge of Responding to Arctic Oil Spills


(Photo Credit: NOAA OR&R/ Doug Helton)

The U.S. Arctic is no longer the place it once was.

By Dave Westerholm

The environment north of the Yukon River and beyond the vast Brooks Range is warming rapidly. National Oceanic and Atmospheric Administration (NOAA) scientists predict that by 2020-2030, the Arctic could be nearly free of sea ice during the summer. Open seas will expand opportunities for maritime transportation, tourism, and oil and gas exploration in the region. But as a warming Arctic opens up vast opportunities for commerce and development, it brings with it unprecedented challenges, especially for protecting Alaska's extensive coastline and incredible marine life.

Increased vessel traffic to newly accessible oil reserves and navigational routes raises the likelihood of accidents at sea and along the Alaskan coast. Both industry and government will have to deal with and manage the resulting medical emergencies, search and rescue cases, and environmental pollution.

Addressing Oil Spill Response

One area that has received a lot of attention in the wake of the 2010 Deepwater Horizon rig explosion and well blowout is oil spill response. All oil exploration and production operations in U.S. waters are required to have response equipment accessible in case of a spill. The temperate waters and dense industrial coastline of the northern Gulf of Mexico are well equipped to support oil spill response when

Image Above: December 8, 2004. The bulk carrier M/V Selendang Ayu ran aground on Unalaska Island. Although carrying a cargo of soybeans, the ship spilled approximately 350,000 gallons of fuel oil and diesel oil.

compared to the remote Alaskan Arctic. Vessels crossing the Arctic Ocean may find themselves with comparatively little response equipment on board. They also would need to have agreements in place with oil spill removal organizations, which, at present, only have equipment and infrastructure in limited locations on Alaska's North Slope.

Despite the best efforts at prevention, oil spills will happen in the Arctic. When this occurs, the expectations for response should not be the same as in the Gulf of Mexico or other areas with significant coastal response assets and infrastructure. Instead, everyone involved needs to be ready to work with the limitations of the Arctic's extreme environment. The region has highly variable and harsh weather conditions including ice which could interact with spilled oil, and limited infrastructure for transportation, food, and housing for response personnel.

Questions remain about what kind of impacts an oil spill might have on Arctic marine ecosystems and how best to mitigate the effects. Potential impacts could affect not only protected species but also extend to the subsistence lifestyles which are deeply engrained in the culture of Alaska Native peoples and include activities such as hunting for bowhead whales, ice seals, and walruses. In addition, not as much background environmental data exists for the Arctic as for other U.S. coastal locations—and since the Arctic is in a state of change, what background data is known will not be viable indefinitely. When an oil spill does occur, a lack of baseline data for comparison may affect NOAA's ability to assess and restore injuries to natural resources. We have been fortunate not to have a large release in the Arctic, but the lack of an actual spill also means that data to inform restoration decisions, such as ecosystem recovery rates, is limited.

For these reasons, NOAA's Office of Response and Restoration (OR&R) is working proactively alongside other federal, state, and tribal agencies as well as industry, academia, and nonprofits to prepare for and understand the consequences of oil spills in the Arctic. OR&R serves as a center of expertise in preparing for, evaluating, and responding to oil spills and other threats to coastal environments. Tailoring its years of experience to the Arctic's challenges, OR&R is developing the tools, fostering the relationships, and building the knowledge base to help deal with the unique demands of an Arctic oil spill.

Specific Efforts

To assist emergency response decision makers such as the U.S. Coast Guard and the Department of the Interior's Bureau of Safety and Environmental Enforcement, OR&R is developing the technology—specific to the Arctic—to manage environmental and response information. One such tool is NOAA's Environmental Response Management Application (ERMA) for the Arctic Region. Now accessible to the public, Arctic ERMA is based on the same platform as NOAA's Gulf of Mexico ERMA, which federal responders used successfully during the Deepwater Horizon/BP oil spill in 2010. ERMA is a web-based mapping and data management platform that brings together and creates a visual overview of information on environmental conditions and ongoing response and damage assessment operations. Arctic ERMA is available online at https://www.erma.unh.edu/arctic.

Effectively preparing for the threat of an Arctic oil spill requires leveraging the tremendous knowledge and experience of the many people with Arctic expertise, including local residents. Additionally, the U.S. government should continue work with industry, academia, nonprofits, and other Arctic nations to bring the best available technology to oil spill response, both to reduce the likelihood of a polluting event and to minimize harm should one occur. During such an incident, decisions need to be made based on current conditions, infrastructure capacity, and—of course—sound science. NOAA's OR&R is focused on fostering the working

relationships needed to make informed scientific decisions about oil spill response and environmental restoration.

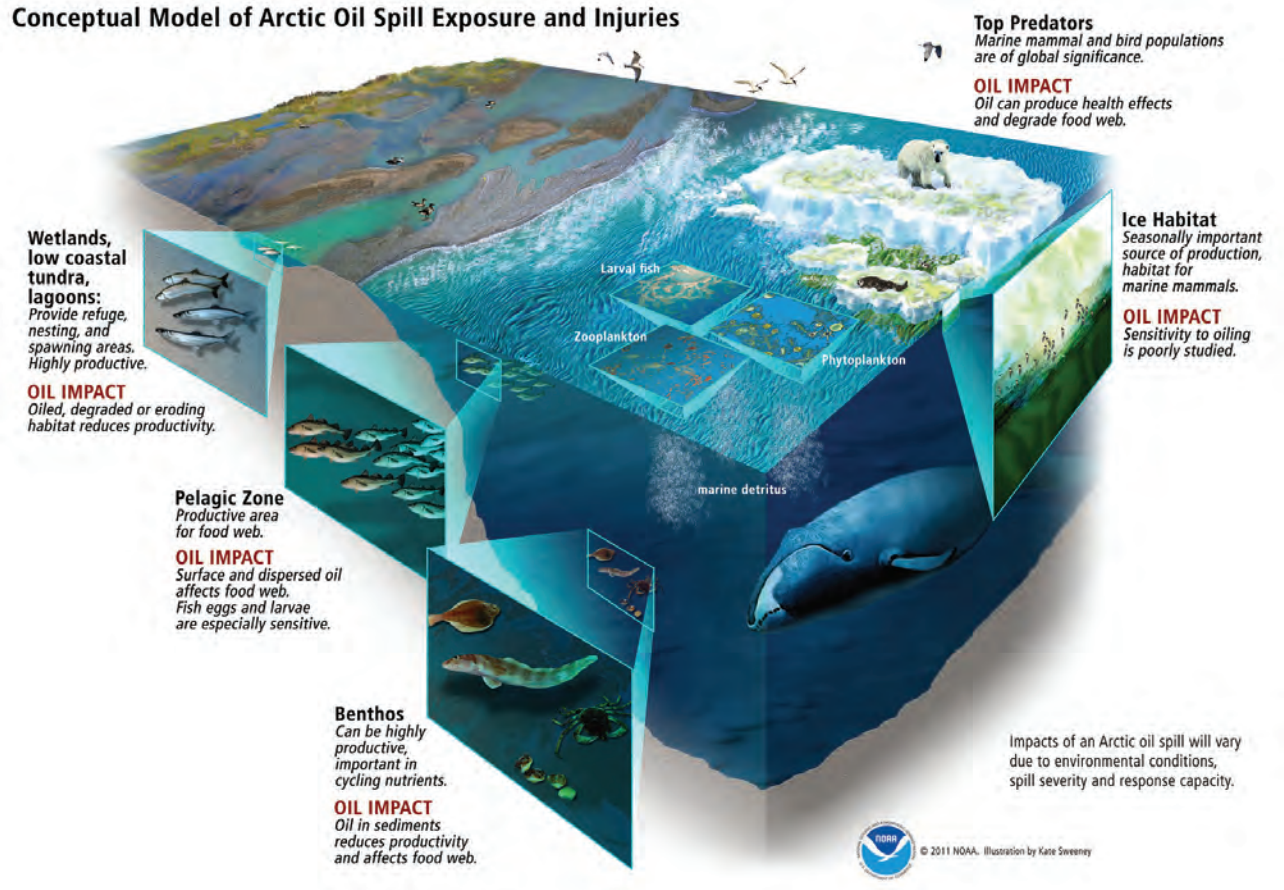
The Best Response: a Good Defense

The best executed response is a prepared response. This means putting into practice mandatory response plans. OR&R has participated in a number of these exercises. In the summer of 2012, for example, NOAA, the Bureau of Safety and Environmental Enforcement (BSEE), and the U.S. Coast Guard participated in an industry-sponsored theoretical training exercise simulating an oil spill in Alaska's Chukchi Sea. Representatives from all levels of government and industry took part in the drill, which featured a demonstration of real-life challenges expected during a spill in this remote area. The drill tested the government and oil industry's ability to make rapid decisions based on environmental, logistical, and operational data. Data ranged from the availability and deployment of response assets (e.g., boom and skimmers) to expected wildlife impacts. Overall, the drill was a success but clarified a sentiment already present among responders: The scope and complexity of an Arctic spill requires special considerations not present during spills elsewhere in the U.S.

Equally important for effective emergency management is fostering solid relationships with affected communities. In this vein, NOAA, along with several other state and federal agencies, has been attending a series of workshops designed to engage Alaskan Arctic communities on issues of oil spill response and restoration. NOAA's goal is to start building relationships between those who know the local environments and those emergency responders and restoration experts who will need that guidance in the event of an oil spill. So far, these workshops are broadening OR&R's understanding of how closely people are tied to natural resources in the Arctic—and how, together, the response community might be better able to plan, prepare, and respond to spills to minimize negative consequences.

Assessments, Training and Models

It is through these partnerships that NOAA's Office of Response and Restoration is able to identify the scientific and operational unknowns in dealing with Arctic oil spills. Frequently, this translates to offering training and hosting discussions on critical response and restoration issues. OR&R oceanographers and scientific support staff share their knowledge of modeling the projected paths of spilled oil, the best mechanical methods for recovering oil, and whether alternative response countermeasures, such as in



situ burning and chemical dispersants, should be used. At the same time, OR&R hopes to improve the current, incomplete understanding of the interaction of oil in, under, and above floating sea ice and of which protection strategies, such as booming, work best in each location.

As a natural resource trustee, OR&R also is working diligently with other federal, state, and tribal trustees to better prepare for a natural resource damage assessment in the Arctic. This is a complex scientific and legal process that often involves years of work and negotiations over what injuries occurred and how best to restore the environment based on the injury. The injury is compared to pre-spill conditions, making an understanding of the baseline essential—even as that baseline is changing in a warming Arctic.

In advance of environmental injury, OR&R has created a conceptual model of what would happen to Arctic habitats and wildlife during a major spill. The model lays out all the possible ways oil could move through the marine environment and how fish, invertebrates, birds, and marine mammals could be exposed to oil at different levels of the ocean.

This is particularly important because shipping creates a high risk for oil spills on the surface of Arctic waters, which could then impact the sensitive species found there.

Fortunately, since 2009, OR&R's scientific support coordinator for Alaska has served on an advisory committee to a special oil industry research group trying to resolve remaining research questions before major oil exploration and production occurs off the northern Alaskan coastline. In particular, this research program has focused on determining the viability of using chemical dispersants during future responses to Arctic Ocean oil spills.

Looking Ahead

The future of the Alaskan Arctic almost certainly will see increased development, and along with it, greater chances of oil spills. It is imperative that everyone—government, industry, nonprofit, academic, tribe, and resident—work together to understand the benefits and risks of these activities and make decisions founded on sound science. Where there are risks, NOAA's Office of Response and Restoration will be working to bring the best available technology, partnerships, and science to ensure the Arctic's future is a healthy one.

(Photo Courtesy Samsung Heavy Industries)

Gearing Up For U.S. Offshore Wind Power

By Susan Buchanan

Next year, developers hope to start building offshore wind turbines in the U.S., which is already a leader in on-land wind generation. As turbines spin off the coast in a dozen other countries, particularly the UK, Denmark, the Netherlands and Germany, global offshore wind capacity has expanded nearly six-fold since 2006. Most of these installations are in shallow water though winds are stronger out further.

If the U.S. is to have offshore turbines, many residents want them distant enough so they can't be seen or heard. And environmentalists hope wind farms won't interfere with birds and marine life. The latter domestic variables, along with making the price of offshore power competitive with traditional shore-based power sources, have slowed the birth of offshore wind here at home. That situation could be changing very soon and some U.S.-based firms are already in the game.

Louisiana-Built Vessel Installed UK Turbines

U.S. companies have been supplying vessels for offshore wind in other nations. Semco LLC in Lafitte, La., got involved awhile ago. Allen Moore, general manager at Semco, said last month "we finished building the 280-foot, KS Titan 2 in 2009, and it set up 35 to 40 wind turbine units on England's east coast in 2009 to 2010."

"Titan 2 has 280-foot legs and can work in depths of 220 feet," he said. "Its large deck space, leg length and dual 200-ton cranes were assets in developing the turbine farm. Our associate company, Seatrax in Houston, designed the cranes that are on mounted legs to create more working deck area."

Moore continued "Titan 2 can place wind towers in subsea soil, lift the towers and install blades. It's pretty well self-

Image Above: Pacific Orca, built by Samsung Heavy Industries, is the world's largest wind-farm installation vessel.

contained and works autonomously, with its own propulsion cranes and deck storage area. It has living quarters for a crew of fifty."

He said Titan 2, owned by KS Energy in Singapore, is now working off the West African coast in the oil and gas industry. "Vessels serving wind need especially long, boomed cranes and considerable lift capacity," Moore said. "We have built two more liftboats, Pico 4 and Dixie 320, which are both larger than Titan 2 and could work in offshore wind but are currently working in the oil industry."

Knud Hansen Designs TIVs

Douglas Frongillo, naval architect with Knud E. Hansen's Fort Lauderdale office, said his company designed the 528-foot Pacific Orca for Swire Blue Ocean in Denmark. "Pacific Orca is the largest, purpose-built turbine installation vessel currently available, with the biggest payload and lift capacity," he said. "It's a self-elevating, self-propelled vessel, built by Samsung Heavy Industries in South Korea and delivered last July."

The Pacific Orca is being used by DanTysk Offshore Wind GmbH for turbine installation at an offshore wind farm in the German North Sea. The vessel installs offshore equipment in depths to 197 feet, using six jack-up legs to the seabed. Each leg is about 345 feet long. The Orca can accommodate 111 people in single cabins. Knud E. Hansen is a Danish naval architecture and marine engineering design firm.

"We also designed the Mayflower Resolution--currently called the MPI Resolution, owned by Vroon Offshore--built at Shanhaiguan Shipyard in China and delivered in 2003," Frongillo said. "It was the first purpose-built jack up TIV used for transporting and assembling turbines and turbine foundations for offshore farms."

Late this year, "Swire will deliver TIV Pacific Osprey, built at Samsung and the second vessel built to our design which is a sister to Pacific Orca," he said. All of these vessels transition from afloat condition to an elevated-construction mode when installing the turbine structure using onboard cranes. Operations can be completed without the help of other boats.

"One challenge in offshore wind is deciding which vessels to use to transport and install equipment," Frongillo said. "Transportation methods are usually determined by distance from the shore to the farm site, geological conditions, along with what vessels, barges, etc. are available at the start of the project. High waves and bad weather create particular difficulties. Nonetheless, it's possible to adapt existing, non-purpose-built vessels for transport and installation."

In addition to design and marine engineering, Knud Hansen's Fort Lauderdale office, which opened two years ago, does offshore-wind feasibility studies, assists the cruise industry and cargo vessels in marine operations, and helps vessel owners prepare for new environmental and energy-efficiency regulations.

U.S. Installation Day Rates Could Be Steep

In an article titled "*Modeling offshore wind installation vessel day-rates in the United States*," Dr. Mark Kaiser and Dr. Brian Snyder at Louisiana State University's Center for Energy Studies recently estimated costs of U.S. offshore wind installation to vessels. "Day-rates for liftboats, jack-up barges and self-propelled installation vessels are expected to range between $12,500 and $75,000 per day, $25,000 and $150,000 a day and $60,000 and $300,000 a day, respectively," over five years starting in 2012, they said.

Kaiser and Snyder added, "Costs to a U.S. developer to lease an installation vessel are subject to uncertainty because of supply and demand conditions, the installer's willingness to pay and regulatory requirements." A capital cost model, leasing strategy and developer-owned vessel strategy was part of their research, as well as estimating transport costs by vessel type and mobilization distance. The study was published in June 2012.

UK Firm Makes Blades in New Orleans

In yet another example of a slowly growing U.S. manufacturing capability, UK-based Blade Dynamics in late 2010 set up shop at the National Aeronautics and Space Administration's Michoud Assembly Facility in New Orleans East. There, the company produces a lightweight blade called Dynamic 49, designed for a 2-megawatt wind turbine. Michoud has port access, and Blade's products are shipped outside of Louisiana.

Onshore Turbine Pays Off In Buzzards Bay

The U.S. doesn't have offshore turbines yet but Massachusetts Maritime Academy – surrounded on three sides by water, with good wind resources – built a turbine on its Buzzards Bay campus six years ago. MMA president Admiral Richard Gurnon said last month "the 242-foot, 660-kilowatt Vestas V47 wind turbine provides enough electricity for our 54-acre campus. Electricity is free on windy days of about 20 knots or so."

He said "the turbine saves us $200,000 a year in electricity that we don't have to buy, and we can sell $50,000 in renewable energy credits or RECs on the open market." He noted that wind power reduces reliance on fossil fuels; a move that's needed as glaciers melt and the ocean rises and becomes warmer.

Buzzards Bay has had some major spills, like one in April 2003 when a barge left 100,000 gallons of fuel oil in the

bay--killing birds and sea life.

Researchers at MMA found that birds have avoided the wind turbine's airspace during operation, and bird mortality rates in that airspace are low at 2 to 3 a year. Students and faculty continue to assess impacts on birds, especially terns. Gurnon said the academy's wind investment gives students skills that can be used in renewable energy careers.

BOEM to Hold Offshore Wind Area Auctions In 2013

Separately, the U.S. Department of Energy and the Bureau of Ocean Energy Management (BOEM) have taken steps to promote offshore wind, Hansen's Frongillo noted. On Oct. 31, BOEM requested public comment on an environmental assessment for a Wind Energy Area on the Outer Continental Shelf in Massachusetts. BOEM will auction off area for harnessing wind off the East Coast, probably in first quarter 2013.

The designated Rhode Island-Massachusetts wind energy area is 164,750 acres south of Martha's Vineyard and east of Block Island. Developers interested in that section include Deepwater Wind, Energy Management Inc., enXco, Fishermen's Energy, Iberdrola Renewables, Mainstream Renewable Power, Neptune Wind and U.S. Wind.

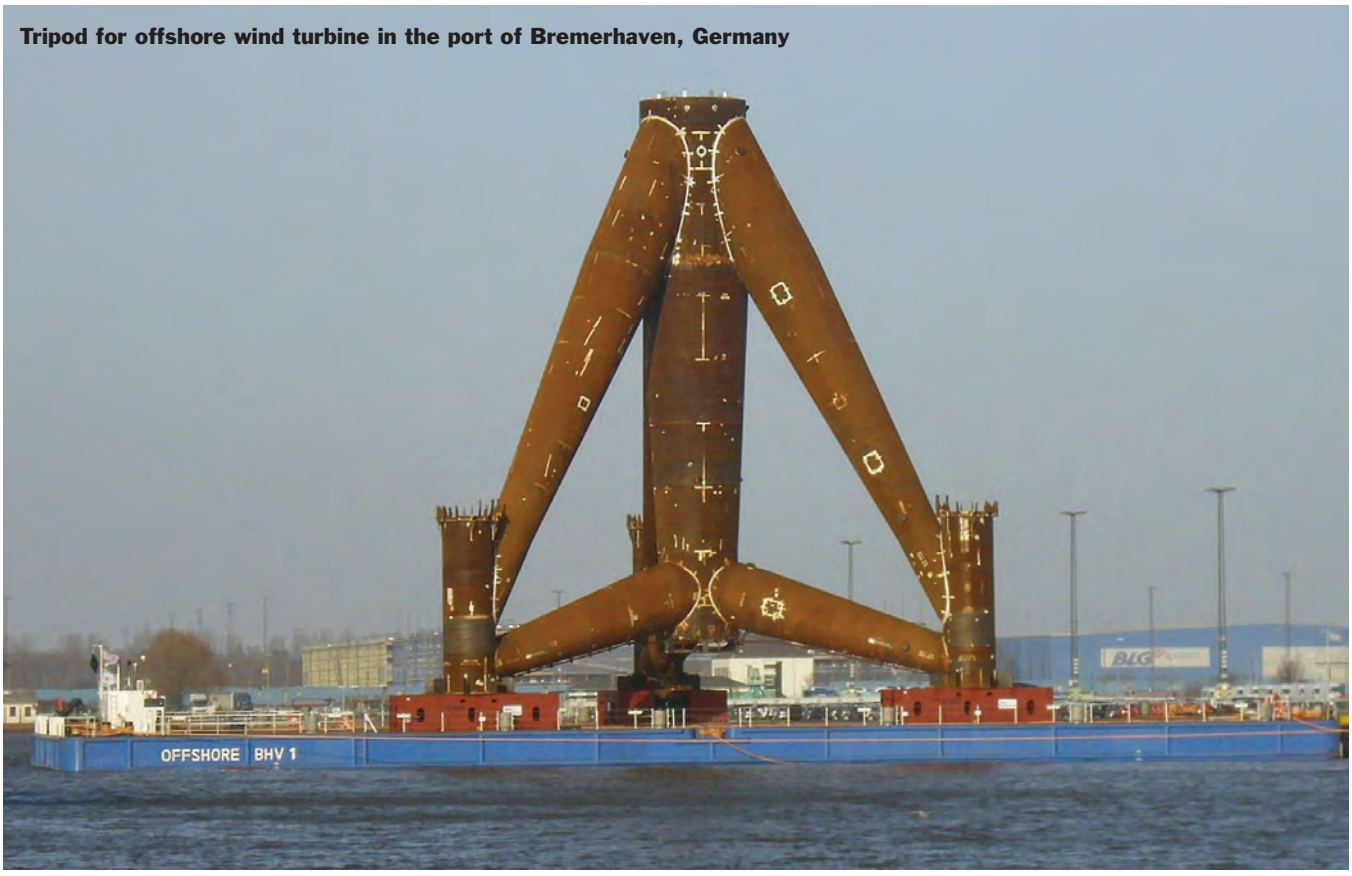
The Virginia wind energy area is 112,799 acres, located east of Virginia Beach. Developers setting their sights there include Apex, Arcadia, Cirrus Wind Energy, Dominion Virginia Power, enXco, Fishermen's Energy, Iberdrola and Orisol Energy.

In late 2010, BOEM launched a Smart from the Start imitative for offshore wind. Under that program, turbine projects are to be situated so that their impacts on migratory birds, marine species and archaeological sites are minimized.

Construction of Offshore U.S. Turbines May Start Next Year

Environmental Management Inc., developers of Cape Wind, has secured permits for a proposed $2.6 billion, 130-turbine project in Nantucket Sound. Construction is slated to start next year but the project faces opposition from environmentalists. If it's built, the Cape offshore wind farm would be one of the largest in the world.

Fishermen's Energy hopes to erect a six-turbine farm off Atlantic City, New Jersey, with construction likely to start next year. And in Rhode Island, Deepwater Wind wants to build a five-turbine farm three miles off Block Island. Deepwater Wind has also proposed another three



Tripod for offshore wind turbine in the port of Bremerhaven, Germany

wind complexes for New England and the Mid-Atlantic on the Outer Continental Shelf.

Austin, Texas-based Baryonyx Corp. would like to build 300 offshore wind towers near South Padre Island. The project, set within a migratory bird flyway and some of the state's best fishing and shrimping, has opponents. Louisiana's oil and gas industry has the infrastructure to support offshore wind but migratory birds and marine life are a concern in the Pelican State.

Protecting Birds and Sea Life

Turbines have to be placed with wildlife in mind. "Noise from hammering piles in sub-ocean soils has become been a concern," Frongillo said. But he said "I doubt Northern Europe would be as successful with wind power as it is if offshore installations were causing extensive harm to wildlife." Regarding hazardous material, "offshore wind doesn't even belong in the same discussion as offshore oil and gas when considering risk for major environmental incidents," he said.

Marine ecologist Martin Attrill, director of Plymouth University Marine Institute in the UK, said in a report released in November that "poor location of a wind turbine can have an impact on certain bird species" so choosing the right site is important. Some species of birds avoid wind turbines but others may be attracted to them, he wrote in a paper titled "Marine Renewable Energy: Necessary for Safeguarding the Marine Environment?" Evidence suggests that collision rates by birds and bats may be lower with offshore than onshore wind turbines, he said. Attrill cautioned that offshore turbine construction activities can impact species.

On the positive side, a wind turbine structure can act as a reef, attracting

"... the 242-foot, 660-kilowatt Vestas V47 wind turbine provides enough electricity for our 54-acre campus. Electricity is free on windy days of about 20 knots or so. The turbine saves us $200,000 a year in electricity that we don't have to buy, and we can sell $50,000 in renewable energy credits or RECs on the open market."

– MMA president Admiral Richard Gurnon

The first REpower 5M wind turbine (OR-D1) after erection on 2011-03-22 at Vattenfall's Ormonde offshore wind farm in the UK.

fish, cribs and other creatures, he said. As for MMA's onshore turbine, bird mortality appears to have been modest, Gurnon said. And the academy's turbine is clearly energy efficient. "It paid off quickly," he said. "If we had to do it over, we should have gone bigger and taller." He said "a problem arose with a light on top of the turbine that reflected off stainless steel appliances in neighbors' kitchens, but we had it adjusted."

Taking Stock & Looking Ahead

As for MMA's onshore turbine, bird mortality appears to have been modest, Gurnon said. And the academy's turbine is clearly energy efficient. "It paid off quickly," he said. "If we had to do it over, we should have gone bigger and taller." He said "a problem arose with a light on top of the turbine that reflected off stainless-steel appliances in neighbors' kitchens, but we had it adjusted."

Worldwide, far more wind has been harnessed on land than offshore but wind power is now the second major source of renewable electricity after hydro-power. In the next few years, wind energy may become a reality off the U.S. coastline as projects navigate the regulatory labyrinth and deal with opposition from environmentalists and residents who don't want to see or hear turbines. Based on success in Europe, companies sense value and are jockeying for position in this fledgling, U.S. offshore sector.

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.*

Mass. Maritime's Wind Turbine in Buzzards Bay, MA

INNOVATIVE BOATS OF 2012

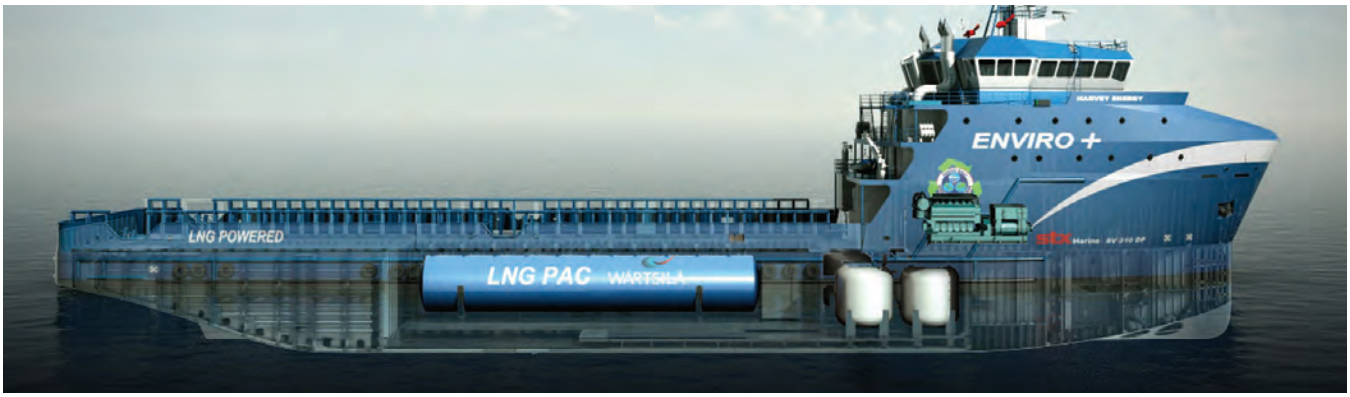
This year's version of our annual "Great Boats" layout contains something for everyone. That's because so many innovative designs and concepts were introduced to the market in the past 12 months. Not all of them have been launched, but we've nevertheless captured the best of these forward-thinking ideas, along with some stunning artwork so that you can envision the wonder of what is to come next. And, if LNG seems like a common thread, then that's because it is about to come of age in a world of crushing regulatory demands, ECA's and the (so far) economical cost of LNG. That makes sense.

Also included in this edition are workboats already delivered and put into service over the course of the past year. All of these selections are important for different reasons – environmental features, functionality, homeland security and favorable footage, too.

CONCEPTS & DESIGN

Harvey Gulf's Dual Fuel OSV

Harvey Gulf International's effort to build a new class of dual fueled LNG-powered offshore supply vessels (OSV's) raises the bar higher for the U.S. Gulf of Mexico offshore markets. Among the first to be classed under the ABS Guide for Propulsion and Auxiliary Systems for Gas Fueled Ships (May 2011), the vessels will be the first dual fueled LNG-powered vessels under US flag. The new vessels will also receive environmentally-friendly notations from ABS. Designed by naval architects STX, and with construction already underway at Mississippi-based TY Offshore, Harvey Gulf has four of the DP-2 rated (302' x 64') Dual Fuel Supply Vessels on order, with options for two more. The expected delivery date for the first hull could come as soon as mid-November 2013. The exclamation point on the design may well be the STX (patent pending) design of the functional arrangement of a dual fuel OSV. The cost of these vessels is about 16 percent higher than conventional OSV's, but the payback promises to be remarkably swift; as little as just 2-3 years, dependent on the price for future distillates. In gas mode, the engine currently exceeds the IMO Tier III level for category III engines by about 85%. Finally and taking lessons from what the Norwegians are already doing, the Harvey Gulf vessels will also be fitted with state-of-the-art accommodations, on par with any four star hotel. The sparkling interior depiction that accompanies this narrative is proof enough of that.



Aquarium Research Vessel

In October of 2011, the Maritime Aquarium of Norwalk, CT was operating a research vessel on Long Island Sound providing a platform for marine science and environmental education (to more than 5,000 children annually), environmental monitoring as well as exploration and research on Long Island Sound. That vessel, now 30 years old and facing USCG regulations reducing its ability to carry more than twenty-five passengers, needed replacement. The cost to renew tonnage was an issue. Led by Co-Chairs Per Heidenreich of Heidenreich Innovations and James A. Barker of SeaStreak LLC, a nine member committee of leaders in Connecticut's maritime industry was charged with the task of raising funds and completing the design and construction of a new research vessel for the aquarium. With a target budget of $2.5 million dollars, the design requirements were not simple. Deliver a "floating classroom" capable of carrying a full school bus of students during a single voyage – 65 young scientists traveling on a catamaran platform propelled by an environmentally clean propulsion system. Alternative Marine Technologies of Stamford, Connecticut contracted to supervise the design and construction for USD $1, and after considerable analyses with the committee and the aquarium staff, Incat Crowther's 65-foot research vessel design was selected. The new vessel will effectively double classroom capacity. The propulsion system is provided by Northern Lights, combining high-performance Lugger diesel engines with a HybriDrive Propulsion System. The system efficiently directs power produced from the electric generator and harnessed within a Lithium Energy Storage System to provide clean, quiet power without the engine and without emissions.

Waller-Designed Transport Vessels to Support Distribution

Waller Marine, Inc., through its LNG development subsidiaries, Waller Energy Holdings, LLC and Waller LNG Services, LLC, has initiated activities on its first natural gas liquefaction (LNG) facility to be constructed on a 175 acre site the Company has acquired at the entrance point of the Calcasieu Ship Channel in Cameron Parish in Southwest Louisiana. With looming regulatory requirements for vessel's to comply with new ECA emission control regulations, the Company's focus is to supply LNG to the marine fuels market. No doubt, Shane Guidry at Harvey Gulf Marine is watching closely. To enable the supply and distribution of LNG to and from small scale LNG terminals and for bunkering LNG as a marine fuel, Waller has been the first to conceive and design a series of small LNG vessels ranging from its 2,000 to 10,000 cubic meter capacity river transport and bunker barges and its 10,000 to 30,000 cubic meter coastwise ATB LNG vessels. Waller's innovative concepts are patent pending before the USPTO, and Waller has recently acquired Approval in Principle from the American Bureau of Shipping (ABS).

Vigor Shipyard's OPC Entry

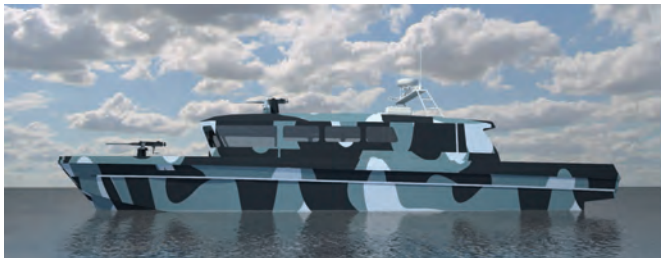
The U.S. Coast Guard's effort to replace as many as 25 medium endurance cutters has domestic shipbuilders queuing up to design and build its next generation offshore patrol cutter (OPC). Only one shipyard – to date – has succeeded in generating genuine excitement with an innovative design proposal. The low risk approach includes four key metrics for the OPC concept, including endurance on the order of 8,500 to 9,500 miles range; excellent seakeeping essential to all missions; affordability; and the use of proven hull forms. Vigor's introduction of the Ulstein X-BOW design hull – in service worldwide on 43 different platforms and workboat rolls – potentially adds another foreign-designed hull to the Coast Guard's domestic arsenal and could someday change the perception of what a U.S. Coast Guard cutter should look like. The Vigor team also includes its U.S.-based design agent,

CDI Marine of Glen Burnie, MD. In smaller sea states, the X-Bow, with more volume up forward and high up over the waterline, absorbs the motions of ship through the added buoyancy of the hull. A controlled submergence eliminates green water on deck, lessening the loads and accelerations associated with that. Markedly reduced hull (and crew) fatigue and more efficient propulsion are key benefits. Depending on the sea state, this allows significantly higher speeds and significantly better fuel consumption. The vessel's wide range of expected mission mix will demand that the vessel be fitted with a diesel electric propulsion system. The scalable hull is built in various sizes; from 85 meters all the way up to 130 meters, with a 16 meter beam and up. The Coast Guard version will probably entail a 100 meter LOA design with a beam of 54'. With accommodations planned for 126 to handle a myriad of missions and a crew size of about 90, this OPC hull will replace both the 210' medium endurance cutter and the larger 270' medium endurance cutter.

Damen EcoLiner's LNG Concept for Inland Shipping

Bodewes Binnenvaart B.V., Damen Shipyards Group's inland waterway shipyard, and inland shipping company QaGroup are set to launch an entirely new inland shipping concept. The LNG concept operates alongside another innovation developed by Bodewes Binnenvaart, the air lubricated hull 'ACES'. Working in combination, these innovations lead to fuel savings and emissions cuts. The concept also involves appealing to oil companies and logistic operators keen to get their cargo off the roads and keen on having one partner; one contact to deal with. Although the LNG/ACES system can be fitted to any inland ship, at the moment the system has been designed around a 110 m long vessel. The new vessel has a bunker capacity of approximately 45 cubic meters LNG and it will be fully classified by Bureau Veritas. Equipped with four generator sets, these power all of the consumers via the comprehensive power management system; the power management system ensures efficient energy generation, distribution and storage. For example, there is more power needed going upriver from Rotterdam to Basle than on the return, so the management system will automatically switch the generator sets on and off. Energy created can be stored when using less power or instead it can be used to heat or cool the cargo or for cooling water or heating accommodation. In addition, waste heat is used and becomes energy, so absolutely nothing is wasted. On top of this, there's the 15% fuel reduction because of the ACES hull. Extensive trials have proven that fuel savings of around 25% can be realized on the EcoLiner.

Tampa Yacht Manufacturing's Tempest 50' fast attack



Tampa Yacht's Tempest 50-FAC is a tactically sized, highly reliable, multi-mission, combatant craft capable of operating from land bases or maritime platforms. Well suited to provide Patrol and Surveillance and Interdiction in shallow coastal and riverine waters by day and night, it features very low draft, high maneuverability and speeds above 45 knots. The 50 FAC is ideally suited for conducting operations in marshy areas of estuaries and river deltas with shifting sand bars. Equally adept for deployments offshore, the 50 FAC is well suited for Force Protection, Coordinated and secure operations with vessels in company as well as units from cooperating international navies, Interception and boarding of High Speed Craft, Search and Rescue, Special Force Operations, including insertion/extraction of SOF into hostile/denied littoral/coastal areas, as well as seaward anti terrorist protection of coastal installations. The 50 FAC can accommodate a platoon team of 18-24 troops and is fitted with a bow ramp for the rapid disembarkation of troops to shore for pursuit of smugglers or other violators. In shore and littoral protection and offshore over the horizon operations the 50 FAC is a multi mission craft for coastal protection. Tampa Yacht Manufacturing is currently supplying at least one Asian government entity six (6) of the Tempest 50 Fast Attack Craft (FAC). The first units are in the water and scheduled to ship in January 2013. Specifications include:

LOA (Max) 53' (16.15 m)	WEIGHT (Lightship): 31,000 lbs	STD HP: 1600 hp (1193 kw)
BEAM: 14' 8-1/2" (4.43 m)	DRAFT: 2' 6" (0.76 m)	FUEL CAPACITY: 600 Gal. (2271 L)
DEADRISE: 16.4 degrees	STD ENGINE : T/S MAN R6-800	PERSONS CAPACITY: 16 Dedicated Seats
SPEED, FULL LOAD: 45.0 kts	RANGE, FULL LOAD: 450 nm	Bowthruster with joystick control

Crowley's Ocean Class Tugs

Bollinger Marine Fabricators has delivered the first two of four "Ocean" class tugs to Crowley Maritime Corporation. The OCEAN WAVE is the first of the Ocean class tugs and is the first of two 10,880 BHP tugs that are featured with DP1 capabilities. Fitted with twin screw controllable pitch propellers (CPP), in nozzles with independent high lift rudders, the versatile and environmentally correct vessel is outfitted for long range ocean towing, dynamic positioning, firefighting, rescue and salvage towing, as well anchor handling. All tanks containing oil and oil traces are inboard of the side shell to create a double hull and designed for zero discharge of any machinery cooling water, gray or black water, further safeguarding the environment. Propulsion for the vessels is provided by two (2) Caterpillar C-280-12 Tier II diesel engines, designed to operate on Ultra Low Sulfur Diesel fuel and each is rated at 5440 BHP @ 1000 RPM, driving the 153.5" diameter CPP Propellers through Reintjes LAF 5666 reduction gears. The bow thruster is a Berg VFD 850 HP unit. Electric power is provided by two (2) 1475 KVA shaft generators, one (1) 340 kW Caterpillar C-18 Tier II auxiliary generator (Harbor Generator), and one (1) 125 kW Caterpillar C-6.6 Tier II emergency generator system. The towing and deck equipment is featured with an Intercon – DW275 hydraulic winch with upper drum capacity for 3,000' of 2.5" wire and lower drum with 4,200' of 2.75" wire, Triplex tow pins, Triplex shark jaws and an open stern roller. The vessel is flagged for the United States of America and complies with all applicable rules and regulations for unrestricted ocean towing, International Load Line Certificate, SOLAS and ABS DP1, Green Passport classification. The third and fourth vessels in this class will additionally be DP2 capable.

Allen Marine's Aluminum Floating Dry Dock

Allen Marine's construction of the world's first aluminum floating dry dock, a fully self-contained, eco-friendly unit, represents a major breakthrough in boat-lifting equipment. The dry dock is 140 feet long, with 42 feet of space between the 26-foot tall floating wing walls, but can also be a custom fitted aluminum floating dry dock designed to match unique customer specifications. It is capable of lifting vessels of up to 1000 tons, at 5 LT/feet of keel block loading. Unique because it is constructed entirely of marine-grade aluminum which rivals the strength and durability of steel, with the added benefit of being extremely lightweight. The dock system features low maintenance and will not rust, making it ideally suited for the corrosive environment in salt or fresh water applications. The finished surface includes a cathodic protection system that protects it from salt water degradation in the hostile environment of saltwater. The portable floating dry dock provides a unique solution to the problems associated with minimally available land. Ease of installation in offshore locations or as an addition to an existing boatyard via a ramp, it may be fastened to a bulkhead, or stabilized in water using piles

or spuds. A portable solution, it can be disassembled into three modules, shipped by air, and reassembled anywhere. When the dry dock is assembled but unoccupied by a vessel, it can be transported or stored in very shallow water. All wash-off from boat cleanings is collected in the dry dock's slurry tank, and can then be disposed of or treated with an optional water treatment system.

Innovative Boats of 2012

Silver Ships, Inc.

Silver Ships, Inc., of Theodore, AL, has begun delivering Riverine Patrol Boats (RPB) to the U.S. Navy Foreign Military Sales Agency (FMS). The contract, which includes the design, construction, delivery, reactivation and training for maintainers and operators, specifies RPB's of 40 feet LOA, powered by twin Yanmar diesels coupled to Hamilton water jets. The RPB draws less than 24" of water and has a cruising speed in excess of 30 knots when fully loaded with a range greater than 250 NM. Ballistic protection for crew, troops and machinery spaces are incorporated into the design and the RPB has the capability of firing multiple weapons systems including several fixed positions. The RPB's command and control (C4SIR) systems allow the craft to operate independently at night in an undetected mode. The electronics suite includes sophisticated navigation and communications equipment housed in a secure and environmentally protected space.

Veka-Group Develops LNG Inland Bunker Ship

Veka-Group has developed an LNG inland waterway bunker ship, is the first of its type in the world. The tanker sails almost completely on the 'boil off' of the load and is 100% emission-free. The 100 percent LNG engine burns the 'boil off' completely, thereby outperforming even dual fuel engines. The tanker's innovative design has been submitted for approval to the Central Commission for Navigation on the Rhine in Strasbourg and to the Maritime Safety Committee (AND) of the United Nations Economic Commission for Europe (UNECE). With the hull already completed, and following plan approvals, Veka will proceed with the construction and completion of this tanker. The

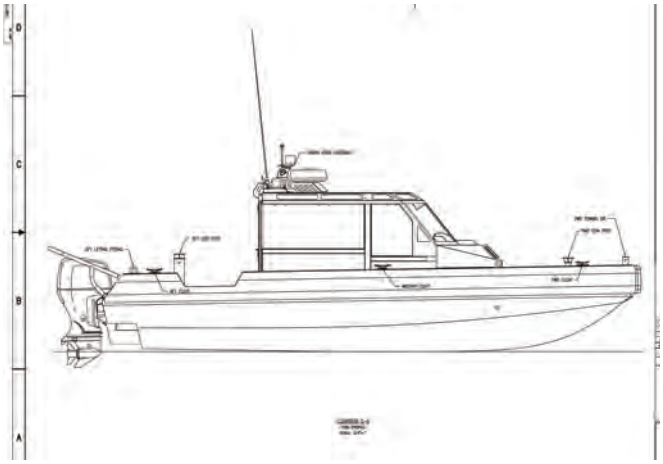
LNG inland shipping bunker tanker is expected to be put into service late 2013. Details of the LNG inland bunker tanker include:

Length overall:	**86.00 meters**
Width overall:	**11.45 meters**
Draught:	**3.50 meters**
Tonnage:	**2,050 tons**
Loading capacity:	**4 LNG containers (-164 ºC) 4 x 200 m3**
Main engine:	**gas engine 1.000 kW**

Metal Shark's Response
Boat-Small (RB-S) II

The Response Boat-Small (RB-S) is intended to perform a myriad of missions for the Coast Guard, including but not limited to Ports, Waterways, and Coastal Security (PWCS), Search and Rescue (SAR), Drug Interdiction (DRUG), Alien Migrant Interdiction Operations (AMIO), Living Marine Resources (LMR), Defense Readiness (DR) and Other Law Enforcement (OLE) missions. The Coast Guard exercised an initial delivery order valued at approximately $13 million, and eventually and in August of this year, the Coast Guard placed a second delivery order with Metal Shark for another 25 boats – valued at $8.1 million – and this brought the total number of boats on order to 63. The U.S. Coast Guard took delivery of the first new Response Boat-Small (RB-S) II in June. Eventually, it is intended that the RB-S II will replace the Defender-class RB-S, of which there are more than 400 still in service. And, because the Defender-class RB-S is the largest vessel class in the Coast Guard fleet, this replacement program is especially important. The new RB-S II has a length of 29 feet, and is powered by twin 225-horsepower (hp) Honda outboards producing a top speed of over 45 knots with a range of 150 nautical miles. The turnkey delivered boats all come with their own Evolution, Patriot Series trailers. Outfitted with a standardized communications and navigation suite and designed to improve functional design and crew comfort, the RB-S II will be operated by a crew of four. RB-S is also weapons-ready, with multiple weapons racks and an integrated weapons-ready mounting system at the bow. The forward-mounted gunner's platform provides 180-degree firing capability while a pass-through hatch leads to the cabin for easy access in any conditions. Boat specifications are as follows:

LOA: 28' 6"	**Beam: 8' 6"**	**Draft: 1' 8"**
Fuel Capacity: 110 gallons	**Dry Weight: 9,800 lbs**	**Max HP: 450 hp**



Versi-Dredge: Innovative Dredging Solutions

Local authorities in the municipality of Colta, Ecuador recently purchased an IMS Model 5012 LP Versi-Dredge with 305mm discharge, newly-developed patent pending Razor Tooth Weedmaster Cutterhead aquatic plant harvester and interchangeable horizontal cutterhead. The dredge was delivered in September. Local officials were faced with a vegetation problem in Laguna de Colta, a recreational lake at 10,825 feet above sea level that had become infested with totora over 40 percent of its area. The other 60 percent of the lake was full of submerged mats of vegetation that were literally strangling all aquatic life. Some vegetation was as much as nine feet tall.

The patent pending Razor Tooth Weedmaster Cutterhead features a reinforced double razor system that can cut the tall vegetation and thick root masses with less wear and bending of cutting teeth than previous models. Local requirements in Ecuador called for a machine that could cut and pump the vegetation without the need for a re-handling barge. Most weed harvesters cut the vegetation stems down to a fixed depth and store them in a hopper which must be periodically emptied on the shore using multiple barges and support equipment. The Weedmaster chops the weeds into 3-5 inch pieces and pumps them to the shore up to 0.6 miles away using the dredge pump.

The Weedmaster cutterhead unit mounts directly to the pump inlet door. It consists of a steel shroud and cutterbar with dual direct drive motors driving the cutter. The cutterbar is made of heavy wall tubing with reinforced razor

The IMS Model 5012 LP Versi-Dredge system immediately proved itself 2 miles above sea level in a lake that is in the advanced stages of eutrophication.

teeth. The shroud contains two rows of static cutter blades that clean the main cutterbar as it rotates. It can remove floating vegetation; submerged vegetation; and emergent and rooted vegetation such as cattails, including 9 feet tall reeds. It can even digest complex aquatic vegetation root systems to prevent re-growth. After the vegetation is removed, the horizontal cutterhead will be installed to remove the moderately-compacted silt, mud, clay, sand, small gravels and occasional rocks to increase the lake depth to 10-15 feet overall. For this project, the standard 325 hp (242 kW) diesel engine was upgraded to a 375 hp (280 kW) diesel engine to compensate for the high altitude of 10,825 ft. (3,300 m) above sea level, the highest elevation a Versi-Dredge has operated in the company's 26-year history.

The patent pending Razor Tooth WeedmasterTM during pre-shipment testing.)

STANDARD EQUIPMENT	OPTIONAL EQUIPMENT
300 ft. (91 m) of roll flat discharge hose	Weedmaster Cutterhead
12 saddle type hose floats	Weed Rake
Fully enclosed engine compartment	Broadcaster Discharge Attachment
Rock Guard	Outriggers
Windlass system for cable drive	GPS System (w/sub-meter accuracy)
Climate-controlled cabin / Ergonomic air-ride swivel chair	Flow meter
Pump/cutterhead view window	Slurry thickness tattle tail
Cathodic protection	Additional corrosion protection package
Joystick controls	Pipe, hose, saddle floats
Digital depth gauge	Navigation lights
360 degree lighting	Spotlight
Two (2) swivel cranes (800 lb. capacity, 363 Kg)	Closed loop video monitor for discharge



Northern Marine Management Team

How

Qi

Lawrence

Northern Marine Expands Team

Northern Marine has expanded its management team. Jan Kallshian, Bryan Kay, Randy Stoneman and Mark Allred have all joined the Anacortes, WA-based company. New company CFO Jan Kallshian was previously controller for Northwest Marine Technology and worked in public accounting prior to that. Kay has been named Northern Marine's controller. With 25 years experience in financial and accounting management, he holds an M.B.A. as well as an undergraduate degree in Economics and Business Administration. Production Manager Stoneman is a master boat builder with 29 years of experience in the marine industry. Northern Marine's new chief naval architect, Mark Allred, has six years of experience in the marine industry, most recently at Marquis Yachts in Wisconsin.

Colin How Joins Edoc as COO

Colin How has joined Edoc Systems Group as Chief Operations Officer. He will lead Edoc's operations, organizational growth and scalability as the company expands into overseas markets.

Jensen Hires Naval Architect

Jensen Maritime Consultants has hired its third naval architect, Jianjun Qi, in the company's New Orleans offices. Before joining Jensen he worked as a naval architect at Incat Crowther and served as a senior naval architect for Derecktor Shipyard. Qi earned his bachelor's and master's degrees in fishing engineering from the Ocean University of China and went on to attain his Ph. D in ocean engineering, with a major in naval architecture.

Global Diving & Salvage Hires New Engineer

Global Diving & Salvage, Inc. has hired Andrew Lawrence as Salvage Engineer, based out of the corporate headquarters in Seattle, Washington. As part of the Marine Casualty Response Service Line, Lawrence will develop salvage plans, provide detailed engineering support, and assist with project management during emergency and routine operations.

Great Lakes Shipyard Adds Two

Kyle J. Fries has been appointed as Assistant Vice President - Ship Repair at Great Lakes Shipyard, an affiliate of The Great Lakes Towing Company. Formerly GM of Cleveland Shiprepair Company, Fries was responsible for ship repair and modification of Great Lakes freighters and other vessels. He is a 2006 graduate of the United States Merchant Marine Academy. Lisa A. Becton has been appointed Senior Buyer of the Purchasing Department. Becton previously served as Senior Buyer / Special Projects Coordinator / Surplus Sales Representative of Bender Shipbuilding & Repair Co.

Aquatic Engineering & Construction Hires Smart

Aquatic Engineering & Construction Ltd announced the appointment of Bill Smart as business development manager, North America. Prior to joining Aquatic, Smart served as the Vice President of Sales and Service for Prime Source Packaging, LTD. He has significant industry experience and has held engineering and project management positions with Oceaneering Intervention Engineering, Oil States, Unigraphics Solutions and Global Compression Services. Smart holds a Bachelor of Science degree in Mechanical Engineering from Texas A&M University.

Philippe Donche-Gay to head BV's Marine & Offshore Division

Bureau Veritas has made a number of new key appointments. The moves follow the retirement of Bernard Anne from his position as Executive Vice-President and Managing Director of the Marine Division. The marine and offshore activities have been merged into one Marine & Offshore Division, with a global network divided into four key areas. Philippe Donche-Gay has been appointed Executive Vice-President in charge of the Marine & Offshore Division, addressing both industry segments. Since he joined Bureau Veritas in 2008, Philippe Donche-Gay has been Executive Vice-President in charge of the Industry


Fries


Becton


Smart


Kritzman


Porter


Cox

& Facilities Division. He started his career with IBM, holding various management positions in France and in the United States.

Kritzman Joins Fowler White Burnett

Fowler White Burnett, P.A. said that Robert Kritzman has joined the firm as a Shareholder at the Fowler White Burnett downtown Miami office working in their general practice group. Prior to joining Fowler White Burnett, Kritzman was a partner at the firm of K&L Gates LLP.

Signet Maritime Promotes Porter

Signet Maritime Corporation promoted Captain Cliff Porter to the position of General Manager, Traffic and Business Development. Previously Senior Manager of Traffic and Business Development for Signet's Pascagoula Division, Porter will assume the responsibilities for vessel utilization, job direction and business revenue maximization for all seagoing fleet vessels in the Brownsville, Ingleside and Pascagoula divisions. A licensed Master of Towing, Porter joined Signet Maritime Corporation in 2010.

Sphere Offshore Solutions Appoints Cox Vice President

Houston-based Sphere Offshore Solutions LLC has appointed Captain Andrew Cox as Vice President. With a Class 1 (Master Mariner) Foreign-Going Certificate of Competency, Captain Cox has more than 20 years of experience in the marine oil and gas and rig transport service sector. Cox began his career with GL Noble Denton as Senior Surveyor.

Twin Disc Mid-Atlantic Names Schmitz as Territory Manager

Mill Log Equipment Company DBA Twin Disc Mid-Atlantic has announced the hiring of Scott Schmitz as the Territory Manager for the Northern Mid-Atlantic States to include, Eastern Pennsylvania, Southern New Jersey, Maryland, Delaware and Washington DC. Scott will operate out of the Pennsylvania region office. Schmitz brings with him electrical and mechanical systems experience in the workboat markets and in the past has operated his own independent marine service company.


Schmitz


Maitland


Hudson


Toohey


Allegretti


Faber

Kirby to Acquire Penn Maritime

Kirby Corporation has announced that it has entered into an agreement to acquire Penn Maritime Inc. and Maritime Investments LLC, an operator of tank barges and tugboats participating in coastal bulk transportation. The transaction involved $295 million (before post-closing adjustments and transaction fees) and will consist of cash, Kirby common stock and the retirement of Penn's debt. Penn operates a fleet of 18 heated, double-hulled tank barges, with a capacity of 1.9 million barrels, and 16 tugboats along the East Coast and Gulf Coast of the United States. Penn's tank barge fleet has an average age of approximately 13 years with a product mix that consists primarily of refinery feedstocks, asphalt and crude oil.

NYMAR Adds Maitland to Leadership Team

New York Maritime Inc. said that Clay Maitland will join the organization whose mission is to promote the New York maritime cluster effective immediately. NYMAR will be celebrating its tenth anniversary next year. Together, Peter Shaerf and Maitland will serve as Co-Chairmen of the organization. Clay Maitland has been employed by International Registries, Inc. for over 35 years and is now a managing partner of the company.

CTLGroup Welcomes Hudson

CTLGroup expanded its Maritime Engineering Consulting Services with the addition of Patrick J. Hudson, Ph.D., P.E., as a Senior Engineer. Dr. Hudson will lead the firm's efforts to enhance and broaden its Maritime Engineering capabilities. Hudson's career spans over 23 years in naval architecture and ocean engineering.

61 Foss Vessels Honored

Sixty-one tugs and tank barges owned by Foss Maritime Company have been recognized by the Chamber of Shipping of America for their environmental safety records. CSA announced the awards honoring the Seattle, WA-based Foss' environmental achievements last month in Washington, D.C. Altogether, the 61 Foss vessels recognized by CSA have gone a combined 543 years without an environmental incident. For a handful of Foss vessels, the awards marked 20 years of operation without an environmental accident. U.S. Coast Guard Rear Admiral Joseph Servidio, Assistant Commandant for Prevention Policy, participated in the awards ceremony.

Seaway October Cargo Up; Sandy Drags on Lakers

North American commodities for the industrial and manufacturing sectors drove an uptick in tonnage numbers along the Great Lakes-Seaway System. The St. Lawrence Seaway reported a 9.8 percent increase for total cargo shipments in October – 4.4 million metric tons – compared to October 2011. For the period March 22 to October 31, year-to-date total cargo shipments were 29.5 million metric tons, a rise of 1.4 percent over the same period in 2011. In the closing months of the 2012 shipping season, tonnage figures for traditional cargoes remain on the positive side for U.S. ports. Separately, the Lake Carriers' Association reported that U.S.-flag Great Lakes freighters carried 8.6 million tons of dry-bulk cargo in October, a decrease of 12.3 percent compared to a year ago. The storms related to Hurricane Sandy played a role in the decrease and U.S.-flag lakers lost 2,000 steaming hours waiting out the storms.

ABS Awards $3M to Stevens

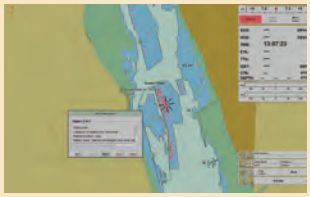
ABS has awarded Stevens Institute of Technology US $3 million. The donation will be used to create a new civil, mechanical and naval engineering laboratory complex in the Davidson Laboratory. The new complex will bear the Bureau's name. "It is an honor to contribute to the long-term success of the marine industry through an investment in a facility that will focus on cross-disciplinary real-world problems," said ABS Chairman Robert D. Somerville. Stevens will construct a 25,000-sq. ft. facility.

BRP Launches Evinrude E-TEC 135 Outboard

BRP has introduced the 135 H.O. to the Evinrude E-TEC outboard engine line-up. The engine is ready to order today from authorized Evinrude dealers and delivery begins in January 2013. Providing more Low End Torque, 2.6 Liters of Displacement and Lightweight Design, the engine also allows for better fuel efficiency, less draft, better handling and less stress on the boat structure. In addition, oil is injected at multiple points, dramatically improving lubrication at slow speeds and increasing engine life. The 135 H.O. also maintains a 3-Star CARB clean emission rating from the EPA and delivers superior fuel economy.

www.brp.com

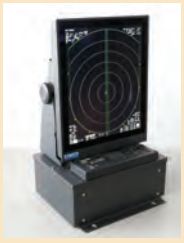
CEACT, SevenCs invest in Inland Shipping Safety



With water levels dropping to historic lows, the use of electronic navigation becomes more and more important. On the Upper Mississippi, the USACE has issued additional rock pinnacles data for different water levels. This data can be clearly displayed in CEACT, allowing the river pilots to safely pass through the danger zones utilizing the remaining navigable water. CEACT is able to present the danger in a highlighted red color without cluttering on the chart. Another an advantage is that the software used for chart production and the software used for the chart display are both from one source.

www.sevencs.com

Imtech Marine & Furuno: RHRS 2014 River Radar



Furuno and Imtech Marine have jointly developed an innovative product for inland waterway shipping. The RHRS 2014 river radar is a revolutionary color radar. Unique in the inland shipping market is the mouse control, which makes this radar very user-friendly. It also offers maximum safety thanks to a black box with two SD cards for 24 hours of storage of radar images. The RHRS 2014 replaces the RHRS 2005, which is now being used on more than 4,000 inland waterway ships. The RHRS 2014 is approved for inland waterway shipping in Europe.

www.imtech.eu

MarineMTS and Telemar UK Launch iPIRB Solution

The new iPIRB, launched by MarineMTS and Telemar UK Limited locates and identifies marine casualties fast so that every effort can be concentrated on rescue and saving life. The iPIRB (Individual Position Indicating Rescue Beacon) is a neat, portable and most of all – reliable, personal locator beacon system, which completes the search and rescue circle by providing a hitherto unavailable layer of pinpoint rescue accuracy for maritime or helicopter operators – whether leisure or commercial. Even unconscious casualties can be located, as the beacon is automatically activated on impact with the water.

www.marinemts.com

Collapsible Fuel Bags by Wing

Wing Inflatables has developed collapsible fuel bags to serve as primary/backup fuel sources for inflatable boats. Wing fuel bags are available in 6 and 9 gallon capacities and are suitable for use with diesel fuel, aviation gasoline, JP-5, JP-8 and automotive gasoline with up to 10% ethanol. Made of the same tough polyurethane material and construction as Wing inflatable craft used by military and commercial users, the fuel bags provide additional range without adding significant weight or taking up space. Their streamlined design contours to the inflatable and draws flat when empty.

www.wing.com

New Tool at SCI Aids in Mariner Assessments

The Seamen's Church Institute (SCI) has a new environment tailored for one-on-one mariner skill appraisal. SCI's new Houston simulator manufactured by Transas provides a dedicated tool for assessments, corrective action implementation and company human resource evaluations. The new simulator suite contains a single full-mission bridge pilothouse, classroom and debriefing area, all designed to work independently from SCI's existing four-bridge Kongsberg simulator. The new Transas simulator provides a mechanism to examine and identify candidates best suited for employment and promotion by providing straightforward, discernible competency analysis in a single location.

http://seamenschurch.org

Rustibus – Heavy Duty Surface Preparation

Rustibus has been a dependable provider of surface preparation equipment to the marine industry for over 30 years. Their machines are based on the patented rotating chain link system that removes heavy rust and old coatings down to the bare steel. Over a long time they have produced de-scaling machines, with regard to both result and performance but also of equal importance, environmental protection. Their machines have proven themselves to be reliable and requiring a minimum of maintenance. With their network of international offices, Rustibus offers the best solutions for surface preparation worldwide.

www.rustibus.com

FLIR Introduces First Mate II

FLIR Systems has launched the next generation of its First Mate line of handheld thermal night vision cameras. The First Mate II has the same thermal imaging performance that boaters have come to expect, but adds the powerful InstAlert feature. InstAlert is an automated image processing feature that highlights the strongest heat signatures in the image in red, instantly alerting boaters to overboard people or waterborne hazards. Ultra-compact, easy to use, and light weight, First Mate II models are available in 240 × 180 or 320 × 240 resolutions and have a wide variety of lens options. They also have long battery life, a rugged, all-weather design, and some models can plug into an external monitor for even greater flexibility.

www.FLIR.com

Shipham Launches New Wafer Check Valves

Shipham Valves, a subsidiary of Wärtsilä, has developed a new range of composite single plate wafer check valves. Available in sizes from 3" – 12" / DN80 – DN300 and rated at 16 bar, the single plate Wafer Check Valve adds to Shipham Valves existing range of composite valves. The latest range is a compact, lightweight, fully non-metallic valve and comprises only two components - the body and the disc. Shipham's composite valves offer outstanding internal and external corrosion resistance, will not melt, creep or shrink and have significant weight savings over equivalent metallic valves.

www.shipham-valves.com

Cummins QSK19 and QSK60 Tier 3 Engines Now Available

Cummins Inc. has announced the availability of its U.S. EPA Tier 3 certified QSK19 and QSK60 marine engines. Cummins Tier 3 solutions apply advanced combustion technology to reduce emissions in-cylinder without the need for aftertreatment. Cummins Tier 3 marine product line will serve as the platform for future, more stringent emissions regulations. The Tier 3-certified QSK19 and QSK60 feature the same premium base engine hardware and footprint as the existing MCRS product. The lubrication, cooling, air handling, fuel and exhaust systems are the same design, ensuring minimum disruption for series-built vessels or replacement engines.

www.cummins.com

Fuel Management with FloScan FloNET

The FloScan FloNET system includes proven opto-electronic turbine fuel flow sensors for marine applications. Flow rate data is routed through the FloNET module and interfaces directly with a navigational electronics display. It provided instantaneous and continuous readings of gallons per hour; gallons remaining in the fuel tanks; nautical miles per gallon and projected distance to empty right on the Simrad LCD screen. FloScan FloNET can help identify the optimum performance points, helping you cruise further, burn less fuel and even identify potential problems that can cost you more money each time you fuel up.

www.floscan.com

Klüber Introduces Klüberbio LG 39-700 Grease

Klüber Lubrication has developed a new adhesive lubricant – Klüberbio LG 39-700 – for the lubrication of open gears and pinions driving large anchor winches and tooth racks of jack-up systems. An ideal solution for machine elements with highly-loaded sliding surfaces operating in ecologically sensitive areas, the lubricating grease has good low-temperature characteristics and is suitable for open gears or rack-and-pinion drives at very low temperatures. Made of renewable raw materials, it is biodegradable, according to OECD 301B, at least 60 percent after 28 days. Klüberbio LG 39-700 reduces the environmental impact of leakage.

http://seamenschurch.org

Marine News

editorial calendar

January

Training and Education

MARKET:
Passenger Vessels & Ferries

TECHNICAL:
Salvage & Response

PRODUCT:
Coatings & Corrosion Control

Ad Close: Dec 21

February

Bulk Transport Leadership Roundtable

MARKET:
Software for the Inland Operator

TECHNICAL:
Deck Machinery & Cargo Handling Equipment

PRODUCT:
Fire & Safety

Ad Close: Jan 25

March

Shipyard Report: Construction & Repair

MARKET:
Special Purpose Workboats

TECHNICAL:
Water Treatment & Technology

PRODUCT:
CADCAM / Design Software

REGIONAL FOCUS:
East Coast USA

Ad Close: Feb 22

BONUS DISTRIBUTION:
CMA Mar 18 - 20 Stamford, CT
AWO Apr 16 -18 Washington, DC
Workboats Exchange Apr 1-4 Amelia IS, FL

April

Offshore Service Operators

MARKET:
Oil Spill Prevention & Response

TECHNICAL:
Satellite Communications for Workboats

PRODUCT:
Marine Propulsion Buyer's Guide

Ad Close: Mar 22

BONUS DISTRIBUTION:
OTC 2013 May 6-9 Houston, TX

May

Combat & Patrol Craft Annual

MARKET:
U.S.C.G. Regulatory Update

TECHNICAL:
Pumps, Pipes & Valves

PRODUCT:
Outboard & High-Speed Diesel Propulsion

REGIONAL FOCUS:
Europe

Ad Close: Apr 26

BONUS DISTRIBUTION:
Seawork Jun 11-13 Southampton,UK

June

Dredging & Marine Construction

MARKET:
Shortsea Shipping / America's Marine Highway

TECHNICAL:
Newbuild & Repair Trends

PRODUCT:
Dynamic Positioning & Thrusters

Ad Close: May 24

THIRD ANNUAL MARITIME PHOTO CONTEST

July

Propulsion Technology

MARKET:
Training & Education

TECHNICAL:
Cellular Communications for Inland / Coastal Ops

PRODUCT:
Winches & Ropes

Ad Close: Jun 21

August

Salvage & Response

MARKET:
OSV Technology

TECHNICAL:
Workboat HVAC Systems

PRODUCT:
Marine Fuels, Lubricants & Additives

Ad Close: July 26

BONUS DISTRIBUTION:
Offshore Europe Sept 3-6 Aberdeen, UK

September

Workboat Annual

MARKET:
Marine Coatings

TECHNICAL:
ITB's & Pushboat Equipment

PRODUCT:
Diesel Engine Tech Guide

REGIONAL FOCUS:
Gulf Coast

Ad Close: Aug 23

BONUS DISTRIBUTION:
Int'l Workboat Oct 9-11 New Orleans, LA
OTC Brasil Oct 8-10 Rio de Janeiro

October

Manning: Recruitment & Retention

MARKET:
Workboat Designers

TECHNICAL:
On Board Comms / Handheld, Intercom & Headsets

PRODUCT:
Electronics & Navigation Trends

Ad Close: Sept 20

BONUS DISTRIBUTION:
SNAME Nov 6-8 TBA
Clean Gulf Nov 13-15 New Orleans, LA

November

Fleet Optimization Roundtable

MARKET:
Regulatory Compliance Equipment & Technology

TECHNICAL:
Inland Regulatory Update

PRODUCT:
Cutting & Machine Tools

Ad Close: Oct 25

December

Innovative Products & Boats of 2012

MARKET:
Construction, Special Operations

TECHNICAL:
U.S. Coast Guard & Maritime Security Workboats

PRODUCT:
Training & Education Facilities

Ad Close: Nov 22

BONUS DISTRIBUTION:
MARINTEC China Dec 3-6 Shanghai, CN

Assistant Project Superintendent

Job Location: USA, Portland, OR

Assistant Project Superintendent - PDX - 41645

Posted: November 27th | Open Until: Filled | Location: Portland, OR
About Vigor Marine

Vigor Industrial LLC is a thriving West Coast provider of innovative industrial services. Our dynamic operations are united by a focus on quality craftsmanship, respect for each individual, and dedication to the task at hand. Our Company is committed to working in a safe and environmentally-responsible manner. Vigor Marine facilities are currently located in Bremerton, Everett and Tacoma, WA; Portland, OR; and Alameda and San Diego, CA.
Vigor Marine is one of seven companies in the Vigor Industrial family. We are a fast paced, highly successful ship repair company. With West Coast-wide operations, Vigor Marine's projects range from voyage repair to complex dry-dockings.

Job Purpose
This position successfully leads project based job results, specifically delivery under budget and on-time. This is accomplished by demanding a daily plan of the day that successfully supports overall project objectives. The incumbent assists the supervisors in mitigation strategies as soon as variances from schedule are identified. Daily progressing against daily plan is required to identify and mitigate variances. The individual will be required to learn and perform functions of project manager on smaller projects that do not necessarily require the services of a project manager. The role reports to the Project Manager on an assigned project, but remains a direct report of the appropriate Director level manager.

Duties
1. Coordinates estimates into work plans and work schedules utilizing MS Project and ensures materials needed are ordered and delivered timely. Coordinates scope of work, Crafts workers and subcontractors needed to complete jobs on time and within budget.
2. Sequencing units of work to meet required delivery dates and maintain project profitability within or ahead of budget. Removes roadblocks identified by Production Supervisors / Manufacturing Supervisors and Production workers.
3. Promotes a safe working environment using daily safety briefs; promoting/enforcing PPE, discussing job hazard analysis, and accident prevention.
4. Supports supervisors in resolving any issues and eliminating barriers that may compromise the successful completion of the plan of the day and elevate those issues they are unable to resolve.
5. Supports the estimating and planning phases of the project by attending meetings and supporting the creation of the estimate and the quality of the plan with the PMT and Trade Coordinator as needed.
6. Responsible for identifying and aligning external resources to support the execution of the project. These groups include any and all departments that interface with production such as Engineering, Procurement, Manufacturing and Facilities.
7. Primary liaison between the Project Manager and the working crews regarding communications relative to performance on safety, quality, budget and schedule.
8. Manages subcontract production through subcontractor's onsite supervisors.
9. Coordinates leads and workers in prioritizing activities/jobs to meet or exceed customer expectations while assuring best use of shipyard facilities and resources.

Please apply online at http://vigorindustrial.com/jobs/details/41645
Human Resources
Vigor Industrial LLC -
Email: Daava.Mills@vigorindustrial.com
Web: http://vigorindustrial.com/jobs/details/41645

Sales Position

Job Location: USA, Mobile, AL

Mobile area shipyard seeking outside salesperson to bring in new business (repair, new construction & metal fabrication). 10+ years experience desired. Estimating and industrial fabrication experience and working knowledge of the inland and offshore marine industry required. Salary and commission negotiable.

Full benefits. Send resume to **mobileshipyard@gmail.com**.

Human Resources
Mobile Shipyard
Email: r.orr@mastermarineinc.com

VESSELS FOR SALE / BARGES FOR RENT

Marine Marketplace

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NEW PRODUCTS

PROFESSIONALS

PROFESSIONALS

ADVERTISER INDEX

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34	ALUMINUM AND STAINLESS	www.aluminumandstainless.com	(800) 252-9074
13	AURAND MANUFACTURING	www.aurand.net	(513) 541-7200
27	BAIER MARINE	www.baiermarine.com	(800) 455-3917
5	CITGO PETROLEUM-CLARION	www.clarionlubricants.com	1-855-MY-CLARION
25	DeFelsko	www.defelsko.com	(315) 393-4450
31	GLOBAL MARINE POWER	www.globalmarinepower.com	(713) 640-9300
21	GREAT AMERICAN INSURANCE	www.greatamericanocean.com	(212) 510-0135
36	JMS- Naval Architects and Salvage Engineers	www.jmsnet.com	(860) 536-0009
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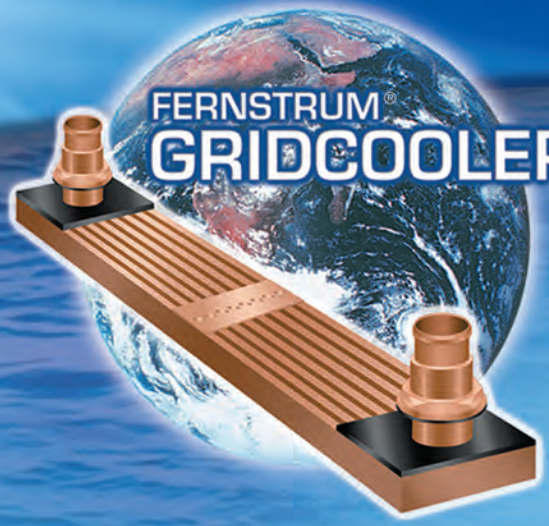

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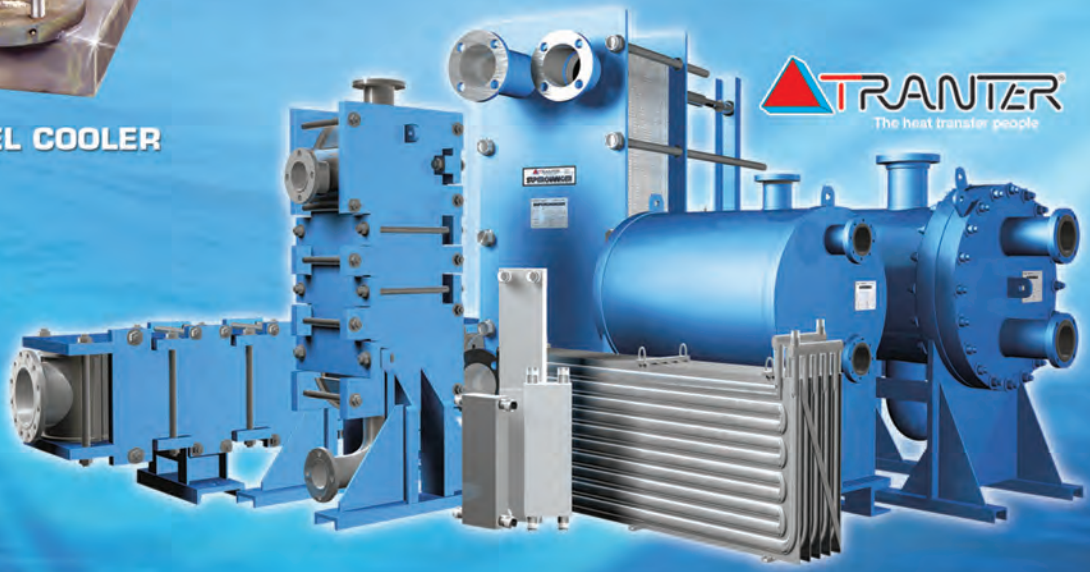

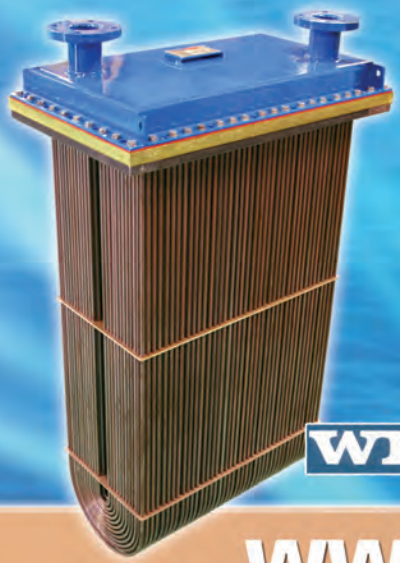

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