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Stoichevski



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Prillen (2011)



10 The King & I

Young Entrepreneur Award Winner Boyan Slat has the noble notion to clean the world's oceans.

By William Stoichevski

14 Caitlin M. Ness

Foss Maritime Company Project Manager Caitlin Ness was born for a life on the water.

By Joseph Keefe

24 NMEC Means Business

When it comes to training, workforce development is the focus of the National Maritime Education Council.

By Joseph Keefe

40 Oil Downturn Gives FPSO Labor Market Pause

Depressed oil prices and oil major CapEx reductions put workers on floating production systems on notice.

By Patricia Keefe

46 Louisiana is Down, Not Out

Louisiana and Port Fourchon both are looking ahead to brighter days, while its workforce fights to survive.

By Susan Buchanan

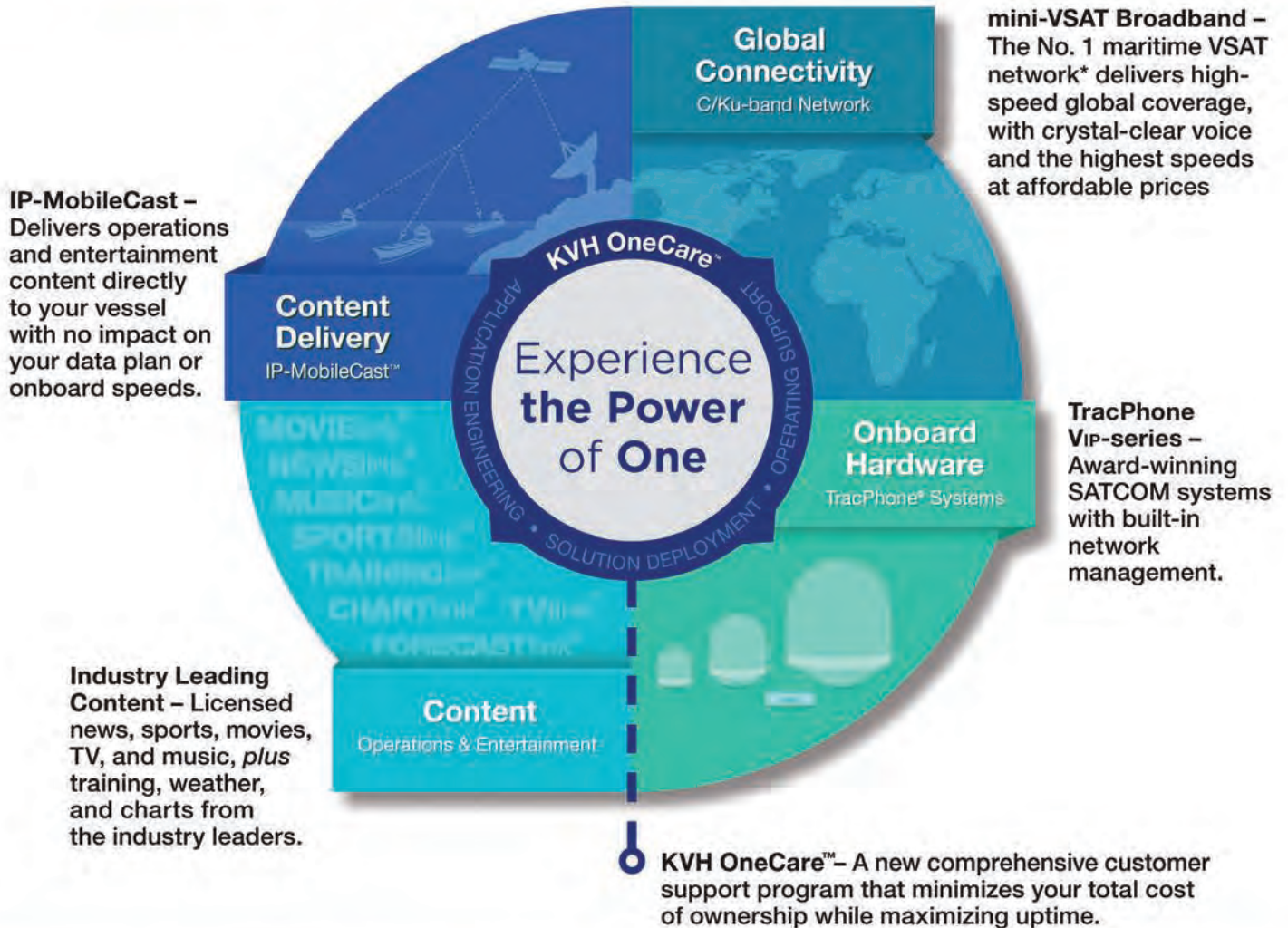
ON THE COVER

RADM Francis X. McDonald is the 38th president of the Massachusetts Maritime Academy and a 1985 graduate of the academy. Founded in 1891, the Academy's 125th anniversary is looming large in the proverbial porthole. McDonald's take on the future of recruitment, training and the education of Maritime Professionals for the next 125 years starts on page 32.

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roundtable

18 | New Faces in Many Maritime Places

Five questions for four impressive women maritime professionals.

By Joseph Keefe

shipbuilding

29 | Humanity in a Shipyard

Not everyone could – or would – step up for the coming torrent of refugees. German shipbuilder Meyer Werft is one entity that did.

By William Stoichevski

charity

52 | Corporate Charity on the Waterfront

These companies give back to the community, for all the right reasons.

By Joseph Keefe

training & education

56 | Training Tomorrow's Maritime Professionals – Today

A look at the nation's seven maritime academies.

statistics

62 | Safety for the Workboat and OSV Sectors

8 | Editor's Note

9 | The List

C3 | Editorial Calendar

64 | Advertiser's Index



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CONTACT US

Robbie Naquin

Robbie.Naquin@capitalone.com

(985) 857-2658



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The Contributors



William Stoichevski

arrived in Norway in 1999, and served as regional feature writer for the AP in Oslo. In 2003, he left the AP to begin building, overseeing and writing for a number of print and electronic energy-industry publications.



Patricia Keefe

is a veteran journalist, editor and commentator who writes about technology, business and maritime topics.

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.



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Maritime Professional

HQ 118 E. 25th St., 2nd Floor
New York, NY 10010 USA

Tel +1 212 477 6700
Fax +1 212 254 6271

URL www.maritimeprofessional.com
Email trauthwein@marinelink.com

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Editor

Joseph Keefe
keefe@marinelink.com
+1 704 661 8475

Bloggers & Contributors @ MaritimeProfessional.com

Lead Commentator	Joseph Keefe
U.S. East	Dennis Bryant
Brazil	Claudia Paschoa
Mumbai	Joseph Fonseca

Publisher

John C. O'Malley
jomalley@marinelink.com

Associate Publisher/Editorial Director

Gregory R. Trauthwein
trauthwein@marinelink.com

VP Sales

Rob Howard
howard@marinelink.com

Production

Nicole Ventimiglia
nicole@marinelink.com

Corporate Staff

Vladimir Bibik, IT
Mark O'Malley, Public Relations
Esther Rothenberger, Accounting

Subscription

Kathleen Hickey
marprocirc@marinelink.com

Advertising Sales

Terry Breese breese@marinelink.com +1 561 732 1185	Frank Covella covella@marinelink.com +1 561 732 1659
-----------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------

Mitch Engel engel@marinelink.com +1 561 732 0312	Mike Kozlowski kozlowski@marinelink.com +1 561 733 2477
--------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------

Dawn Trauthwein dtrauthwein@marinelink.com +1 631 472 2715	Jean Vertucci vertucci@marinelink.com +1 212 477 6700
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Laboring the Point

This isn't your grandfather's merchant marine. That's especially true when you finally come to realize that as many as 39,500 of roughly 40,000 U.S. flag vessels can be classified as brown water, workboat and/or are engaged in some sort of energy support work. It is clear that the workboat market now drives the North American marine markets. It wasn't always that way. But, when all but perhaps 25,000 of a domestic labor pool of about 220,000 credentialed mariners are considered limited tonnage and/or regionally-limited tickets, then you can also understand the importance of this sector to the overall economy.

Notwithstanding the impressive resurgence of Jones Act blue water newbuilding now underway in a handful of the so-called Tier 1 yards, the halcyon years recently experienced on the domestic waterfront and beyond into the larger national economy were driven, pure and simple, by energy. Today, the 'slow down' is a function of the exact same metric. In this issue of *Maritime Professional*, we take a look at the different subsets of this equation and how they are faring in these uncertain times. Those pieces include regional ports, maritime training and recruitment, the offshore deepwater energy game, all tied together by one thing: labor.

Susan Buchanan's look at the current state of maritime business in South Louisiana gives us a good window on this particular business cycle and what that means for onshore and offshore employers alike. Separately – and regardless of what's happening elsewhere on the waterfront – Gulf Coast boatbuilders, even if those long term backlogs are starting to thin out, have hardly taken their collective foot of the gas when it comes to looking for new and qualified talent that will be necessary to fuel the next boom. That boom will come. Patricia Keefe's in-depth analysis of the state-of-the-FPSO markets provides a few clues, but ultimately, it all boils down to the labor component. It always does. That story begins on page 40.

Having said all of that, it is only fitting that this edition's cover is graced by the newly confirmed President of the Massachusetts Maritime Academy, ADM Francis McDonald. That's because, just as this isn't your grandfather's waterfront, it also isn't the right time for your grandfather's maritime academy. In fact, all of the maritime academies are changing; reacting to a new workplace, new technology, and yes, a new type of maritime professional. Within this edition, you'll learn that today's maritime professionals learn differently, are measured against different standards and they represent a much wider demographic than any of us ever thought possible.

The impact and lessons learned from the oil crash of the mid-1980's and the mini-crisis of 2008 that followed still resonate with boat builders, offshore energy, mariners and logistics personnel alike. But, what are those lessons? If there is one thing that we do know, then that lesson is that we simply cannot repeat the catastrophic brain drain that impacted both energy and the maritime sector as a function of both events. We're smarter than that, right?



A handwritten signature in blue ink that reads "Joe Keefe". The signature is fluid and cursive, with the first name "Joe" being more prominent than the last name "Keefe".

Joseph Keefe, Editor | keefe@marinelink.com

THE LIST People & Companies in This Edition

A, B, C		P, Q, R	
ABS.....	16, 25	Hackman, Peter	29, 30, 31
Alabama Technology Network.....	25	Halliburton.....	48, 49, 50
Allman, Jeff.....	26, 28	Hapag-Lloyd.....	51
American Welding Society.....	25	Harvey Gulf International.....	48
Ameri-Force.....	25	Havlik, John.....	27, 28
American Cancer Society.....	53	Hellow, Jurate.....	18, 19, 22
Amland, Dag Kristian.....	10, 12	Helm Operations.....	62, 63
ATPI Group.....	12	Hercules Offshore.....	49
Austral USA.....	28	Huntington Ingalls.....	24, 25, 26, 28
Baker Hughes.....	49, 50	IMA/World Energy Reports.....	40
Barwick, Ton.....	16	Jackson, Timothy.....	55
BG Group.....	18, 20	Jaenichen, Paul.....	34, 35
Bishop State Community College.....	25, 28	Jensen, Syv.....	30
Bollinger Shipyards.....	25, 48	Jobs, Steve.....	43
Boys and Girls Clubs of America.....	54	John Deere.....	54
BP.....	40, 49	Johnson, Tim.....	25, 26, 27
Bjornstad, Roger.....	30, 31	Jones Act.....	8
Bristol Harbor Group.....	54	K, L, M, N, O	
Buchanan, Susan.....	8, 46	Keefe, Patricia.....	8, 40, 44
Calero, Elida.....	18, 19, 20, 22	Kimek.....	30
California Maritime Academy.....	56, 57	Living Lands & Waters.....	54
Chiasson, Chett.....	47, 48, 49	LOOP.....	47
Chiquita.....	51	Loren C. Scott & Associates.....	47, 49
Chevron.....	42	Louisiana State University.....	47, 48
Coast Guard Foundation.....	55	Louisiana Workforce Commission.....	48
Continental Maritime.....	24, 25, 26	Lovie, Peter.....	40, 41, 42
Cook Reed, Lisa.....	55	Maersk.....	51
D, E, F		Maritime Professional Training.....	53
Darroh, Gladney.....	41, 42, 43	Martin Midstream.....	46
Dudley, Robert.....	40	Massachusetts Maritime Academy.....	8, 33, 34, 35, 36,
Ecoserv.....	48	37, 38, 39, 57, 59
Edison Chouest Offshore.....	48	McCaul, Jim.....	40, 42
ExxonMobil.....	42	McDonald, Francis.....	8, 33, 34, 35, 36, 37, 38, 39
Fallen Heroes Scholarship Fund.....	55	Meyer Werft.....	29, 30
Faststream.....	18, 19, 20, 21, 40, 43, 44	MHI.....	25
FMT Shipyards.....	25	Mississippi Gulf Coast Community College.....	28
Fourchon Emergency Operations Center.....	50	Morley, Lisa.....	53, 54
Foss Maritime.....	14, 15, 16, 17	NAMEPA.....	52, 53
Fox, Anthony.....	28	NASDAQ.....	49
G, H, I, J		NMEC.....	24, 25, 26, 27, 28
Garrido, Mauricio.....	54	Navy League.....	28
Great Lakes Maritime Academy.....	54, 56, 58	NCCER.....	25, 26, 27, 28
Greater Lafourche Port Commission.....	47, 48, 49	Ness, Caitlin.....	14, 15, 16, 17
Gresham, Matt.....	51	Newport News Shipbuilding.....	25
Guidry, Leigh.....	46	NROTC.....	60
Gulf Coast Shipyard Group.....	48	National Oceanic and Atmospheric Administration.....	60
Gulf States Shipbuilders Consortium.....	25	Norwegian Ship Owner's Association.....	30
Gurnon, RADM Richard.....	33, 34	Nowak, Bettina.....	18, 19, 21, 23
		NSC Technologies.....	25
		Odedra, Anita.....	18, 20, 21
		S, T	
		Scanship Americas.....	18, 21, 23
		Schaller Automation.....	18, 19, 22
		Schlumberger.....	48, 49
		Scott, Loren.....	47, 48, 49, 50
		Seddon, Ron.....	54
		Shearer, Ed.....	54
		Shearer, Gayle.....	54
		Shipbuilders Council of America.....	28
		Signal International.....	25
		Sisley, Bradley.....	55
		Solow, Robert.....	31
		STCW.....	36
		Stoichevski, William.....	29
		SUNY Maritime College.....	59
		Swift Worldwide Resources LLC.....	42, 44
		T&T Salvage.....	54
		Tenneco.....	54, 55
		Texas A&M Maritime Academy.....	54, 55
		The Shearer Group.....	54
		The United Way.....	54
		Tomicic, Damir.....	42, 44
		Torrech, Mike.....	25, 26
		TOTE.....	16
		Trinity Marine Products.....	49
		U, V, W	
		University of Massachusetts.....	33
		U.S. Army.....	17
		USCG.....	16, 60
		U.S. Dept. of Transportation.....	28
		U.S. Maritime Administration.....	34, 35
		U.S. Merchant Marine Academy.....	60
		U.S. Marine Corp.....	17
		U.S. Naval Academy.....	14
		U.S. Navy.....	14, 15, 16,
		Virginia Ship Repair Association.....	25
		VT Halter Marine.....	25
		Wesco Gas & Welding Supply.....	25
		WISTA.....	15



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BOYAN SLAT
The Ocean Cleanup
(NETHERLANDS)

Shipping's Stake in Ocean Clean-Up

Boyan Slat, Nor-Shipping's Young Entrepreneur prize winner

By William Stoichevski

Drawn from the palace for the event, the King of Norway looks more solemn than many are used to seeing him, as he walks the catwalk to bestow honors and the Nor-Shipping Young Entrepreneur prize on a young Dutch citizen. The 21-year-old Boyan Slat and his Netherlands-based Ocean Clean-up impress not just King Harald and the Nor-Shipping awards committee, but a mixed audience of 800 from the worldwide shipping community and Norwegian officialdom. The Young Entrepreneur Award honors a person under the age of 40, “a professional who has founded a successful company to address maritime challenges in an innovative and new way”. The prize injects a bit of youthful appeal and wildcard relevance to a Nor-Shipping conference and tradeshow that attracted 15,400 visitors in 2015. The prize was juried in part by U.S.-based, clean-shipping protagonist, Carbon War Room.

Innovation

Slat's invention is an “ocean curtain” that drapes for miles to trap plastic bags, six-pack rings and other garbage tossed by humans or carried by the wind into the sea. His technology targets “the removal of half the (trash in the so-called) great Pacific garbage patch.” The “patch” is a continent-sized

“If you told me four years ago (during a summer school exchange) that next time I'd be back here accepting an award from the King of Norway I wouldn't have believed it.”

– Boyan Slat, Nor-Shipping Young Entrepreneur prize winner

swirl of refuse circulating in perpetuity off the Western United States. “If you told me four years ago (during a summer school exchange) that next time I'd be back here accepting an award from the King of Norway I wouldn't have believed it,” the poised, slightly giddy Slat says in a modest victory address that drew laughter and applause. He says he got the idea to do something about pollution when diving in Greece as a teenager and finding “more plastic bags than fish.” The idea that eventually spawned was “a very long floating barrier to passively concentrate the plastic”, since a clean-up using nets and boats would take “about 79,000 years and tens of billions of dollars.”

“We've been able to show that with this technology, 100-km arrays deployed between Hawaii and California would clean up half the great Pacific (Ocean) garbage patch in 10-years' time,” Slat asserts, adding that he'll take the award as a sign that the Ocean Clean-up project “has the support of the shipping industry, which is obviously an important stakeholder in this project.” Yet, in a note to *Maritime Professional*, recent Chamber of American Shipping chief executive Joe Cox says that while the shipping community has committed to preventing pollution it doesn't necessarily see “clean-up” as its role. “An owner would naturally question his responsibility to clean

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up (or pay for) another owner's pollution," Cox writes, adding that, "I also think there should be acceptance by all who have polluted. Commercial maritime has a degree of responsibility; although so do other maritime users such as fishing, some land-based industries, (boaters, etc.)."

Cox wasn't briefed on Slat's invention and couldn't comment, but he offered some caution. "An award given by an organization does not indicate universal support."

Garbage Collection

Slat dropped out of his Aerospace Engineering studies to found The Ocean Clean-Up and begin an entrepreneur's clamoring for funding and development. In 2014, he became the outfit's founder and chief executive after a crowd funding effort raised \$2.2 million, or enough for a technology pilot to launch the platform-and-boom idea. Delft University in the Netherlands had already awarded the concept Best Technical Design, one of several honors awarded Slat in 2014, including a United Nations Champion of the Earth laurel.

The ocean clean-up installation — a two-kilometer prototype of which is due to deploy in 2016 — allows current to carry sea life beneath a boom while trapping buoyant garbage, especially plastic. It's not known how effectively it'll perform either operation over a many years, but its component materials have been researched. Part of the system envisions a trash-munching platform that lifts garbage out of concentration and into a silo for removal and destruction. No specific maintenance or support vessel is understood to have been selected to work the long stretches of oceanic garbage collection.

Contributing scholars, including Slat, say most ocean plastic is suspended in the top three meters, where it will be trapped. Computer simulations and a 40-meter-long mockup strewn across the Atlantic showed plastic does travel along the barriers, and there's no accidental catch of "naturally buoyant" sea fauna.

Slat and his engineering partners have tested the underwater performance of the concept, and found the right amount of gravitational and centrifugal force to separate zooplankton and tiny plastic particles without harming the former.

Some company literature can sound as alarmingly dismissive as the shipping industry attitudes of the 1960's that Cox described. "The environmental impact of the concept is negligible," one text relays, and "No major legal hurdles have been identified." Assurances are given that the plastic collected is recyclable and that the silos can be emptied every 45 days from a giant platform powered by 162 solar panels.

"The question I have is about the amount of garbage and types, i.e. who are the polluters? Also, where would the garbage go? Who would accept it," asks Cox.

Whatever the language of Ocean Clean-Up's concept, the worthiness meter is off the scale. As if the Pacific pile-up wasn't enough, five areas of converging currents in the world's oceans, called gyres, are fast filling with junk. That's not all: "While the debris primarily collects (in the five gyres), it doesn't just directly kill sea life, but due to the absorption of PCBs and DDTs, also poisons the food chain, a food chain that includes us," Slat says.

Ocean Experience

In his letter, Cox affirms shipping has come a long way in its attitudes. The Blatt award merely affirms 2015 is not the 1960's, a time when "deck gangs did throw things overboard." Cox admits to being one of those deck hands who thought, "It's such a large ocean and this piece of detritus I have in hand won't do much."

Slat says seafarer, offshore industry and tourist education and manual collection have fallen short, and that it's time for the ocean "to clean itself" using the Ocean Clean-Up solution. While no known net size will trap the smallest pieces of plastic, the smallest mesh size (used in Clean-Up) does and while letting microorganisms pass through.

Plastic bits, large and small, are eventually eaten by the 24 platforms envisioned in Slat's first, full-scale pilot. In a presentation of his ideas, Slat refers to a maritime accident during which six cargo containers of plastic spilled into Hong Kong harbor in 2012. "The largest oceanic plastics spill ever" would be easily munched up by his Clean-Up array. The full-scale version could clean "55 containers (of spilled plastic) per day."

For the shipping industry — his new "stakeholder" — Slat points to the "\$1 billion" a year in ship damage caused by floating plastic. That junk would be recycled and sold for \$500 million, the "payback" for a plan of execution Slat puts at \$300 million. Sounds like a worthwhile business proposition.

Meanwhile, CEO Slat and his supporting cast of researchers and volunteers — now an ocean-experience enterprise (pay to be a part) and a mass movement organized by social media — have ploughed another barrier into the densest reaches of the great brown Pacific gyre. In tow behind their sail boats, the plastic traps have shown that design and operational costs might come down, after it was found a shallower barrier also collects garbage.

Whatever one thinks about Slat, his "solution" or the high-profile support and coverage he's received, no better ideas have appeared to clean things up. The shipping industry might be partly on board, but other coastal industries — offshore energy or aquaculture — might want to pitch in with an award of their own. As Cox said, who are the polluters?



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Caitlin M. Ness

Project Manager,
Foss Maritime Company



By Joseph Keefe

For Caitlin Ness of Foss Maritime Company, the journey to a career in the maritime industry started well prior to her entrance into the U.S. Naval Academy. Growing up in the San Juan Islands in Washington State, being near the water was an every day event. “Every trip to visit family or to do a grocery run on the mainland meant taking the ferry. During my childhood, my Dad worked in maritime, so I spent a lot of time tagging along with him to work on clients’ vessels. At some point in elementary school, my parents put me in my first sailing class and I was hooked.” That kind of experience isn’t always available to every young woman, but Ness took every advantage of her circumstances on the way up. That said; she points to just one watershed moment that ultimately pointed her to the commercial waterfront, and today keeps her anchored there.

After spending a semester on the tall ship *SV Concordia* during her final year of high school, she began to understand how sailing could transfer into a career. She explained to *MarPro* in November, “When your classroom is a working ship, your perspective changes significantly as you watch the world go by outside, splitting your day between watches, class, and sail maneuvers.” Later, *Concordia* sank off of Brazil in 2010, and in nothing short of a miracle, not a single soul was lost. But the experience of being on board that same vessel years before was probably the single greatest factor in her choosing to study naval architecture, and the loss of the ship later on sparked an interest in projects related to salvage and wreck removal.

For Ness, the reasons for staying in the business are no less compelling than the event(s) that brought her here in the first

place. Today, she says, there are a thousand reasons to work on the waterfront, but ultimately, it’s the fascinating array of people that she meets on a daily basis that keep her looking out to sea. “Everyone has a story and whether it’s meeting with the crew of a fishing vessel on its way to the Bering Sea or one of our tug crews at Foss, every day is slightly different for the types of projects and parts of the industry we get to work with. There aren’t many boring moments and the busy times are the ones that constantly push you to learn more.”

Foundations

Before Foss, however, there was the United States Naval Academy, where Ness earned a degree in Naval Architecture in May of 2010. One of the youngest professionals ever ‘profiled’ here in *MarPro*, Ness has already managed to cram what might be an enviable total career for anyone else, into a very short period of time. With service as a commissioned officer in the United States Navy – she remains in the ready reserves today – and career postings as a Project Engineer and before that, a Naval Architect, she also been heavily involved in the world of salvage.

Anything but deskbound, Ness enjoys the field assignments and on occasion, getting her hands dirty on the many varied tasks pushed her way. That perspective no doubt at least in part emanates from her experiences at the U.S. Naval Academy, and then afterwards, during active duty. For those who haven’t experienced that kind of rigorous educational experience, the value of it can be hard to comprehend.

Ness sums up her military education and service succinctly,



“WISTA: I don't think many organizations promote looking up fellow members while traveling, but I know that I can travel to over 30 countries in the world, and that there will be a WISTA 'Sistah' happy to grab a cup of coffee or dinner. It is incredibly enlightening to have a global network of that nature.”

– Caitlin Ness

explaining, “The opportunity to be in controlled situations where you are constantly pushed to your failure point was key in learning how to recognize how each person handles challenges and failure for behavior in the real world. Learning how to fail in that kind of setting is invaluable and something the service academies drive everyone to at one point or another. For many that may seem harsh, but for the leaders they are training to go into combat, it gives them an opportunity to recognize where weaknesses lie before they are ever truly tested.”

Military Experience, Commercial Savvy

As both a woman and a commissioned officer in the U.S. Navy, Ness brings a unique combination of experience and perspective to the commercial waterfront. She takes the best from both sides of the equation and applies that hybrid approach to her work at Foss. For example, she says, “From a naval architecture perspective, the military naturally moves a lot more slowly with regards to developing and vetting designs, but is also a major driver of innovation and new tech-

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nology. On the commercial side, you can watch an idea for a vessel start on a piece of scratch paper and a couple of years later the actual vessel sailing away from the yard.”

One of Caitlin’s current roles at Foss has been to support sister company TOTE in building the first LNG Bunker Barge in North America. The vessel will bunker TOTE’s new Marlin class LNG containerships and furthers the commitment of the Saltchuk companies to environmental stewardship. But, it’s not just business as usual, Ness explains. “This project has been a lot different than traditional new builds because of how closely the shipyard, naval architect, owner, and vendors have worked together to bring solutions to the table as items have changed. Being on the ground floor as rules and regulations are drafted with ABS and US Coast Guard is also an unusual opportunity.”

WISTA’s Window on the World

As a member of the Women’s International Shipping & Trading Association WISTA and its National Marketing Committee, Ness wears many hats outside her day job. One of the key visions of WISTA is to attract highly qualified people to the maritime industry – a mission that Ness embraces enthusiastically. “I see the Marketing Committee for WISTA as being a conduit for promoting the exciting type of work that we get to do on a daily basis to show those outside of our industry. Earlier this year we collaborated with Getty Images and *Lean In* (Sheryl Sandberg’s organization of Facebook fame). *Lean In* had launched a collection of photos to more accurately portray the workplace, but the images related to maritime did not represent our industry.”

In a nutshell, WISTA and Ness contacted *Lean In* offering to provide accurate images to replace the ones in the collection and they instead made an even better offer, to partner us with the photographer Tom Barwick. The first two shoots went live on their websites and received a lot of attention. “What set these images apart, even though they might look normal to you or me, is that they were taken in places the average person doesn’t have access to. And, we were able to begin building a collection to start showing young people what our everyday work lives look like, said Ness, adding, “The project is ongoing as we continue to look for interesting places to photograph a day’s work in various areas of maritime.”

For all that her efforts provide for WISTA, Ness says that she gets much more back in return. Over time, and through WISTA, Ness has gained access to members across the world which, in time, have also become mentors and friends. “I don’t think many organizations promote looking up fellow members while traveling, but I know that I can travel to over 30 countries in the world, and that there will be a WISTA ‘Sistah’ happy to grab a cup of coffee or dinner. It is incredibly enlightening to have a global network of that nature.” And, note Ness, one of the unique aspects to WISTA is that it’s not just focused on naval architecture or admiralty law, but instead encompasses a group that covers operations, insurance, education, law, engineering, regulatory issues and dozens of other disciplines. Next year, for example, the U.S. chapter is hosting the International Conference on board the *MS Koningsdam* out of Port Everglades. “The opportunity to pool that level of international tal-

Caitlin Ness (left) in the field at work.



Image: Tom Barwick

ent together for a few days is exciting,” Ness adds.

Women on the Water

We pressed Ness on the role of women in the maritime industry today and what can be done to ramp up their profile in a discipline that has, forever it seems, been a male dominated institution. Instead, she told us, “I am proud of the fact that I work for a company that was not only started 126 years ago, but was founded by a woman. Thea Foss, the real life ‘Tugboat Annie’ started out with a used rowboat that she painted white with green trim (still our colors today). Thea Foss was successful based on her hard work and her ability to do the job. My advice to women – or men – that want to get into the maritime industry is that hard work goes a long way but to not be afraid to ask questions or to seek out mentors.”

Separately, the U.S. Navy opened up submarines to female officers in 2010 and this past summer, the first two women graduated from the Army’s elite Ranger School. As speculation ramps up as to which portions of the military will open up to women or remain closed, Ness looks to the commercial side of the equation as an answer. “When I think about my classmates still in the Navy or Marine Corps, I think about their ability to meet their mission and take care of those they’ve been entrusted with, not whether they’re male or female. In looking at job candidates, I think it is important to consider the same thing: the candidate’s ability to meet the mission and take care of those they’ve been entrusted with.”

Less concerned with the implications of being “a woman on the waterfront,” she instead steers the conversation to the overriding need to recruit qualified replacements for all sectors of the maritime industry. “Today, unlike our parents or grandparents generation in which everyone had someone who had served, there is a significant disconnect between the public with the military, as for most it is no longer seen as a career path,” she

insists, adding, “the maritime industry is largely invisible to many in the city of Seattle even though our industry brings \$30 billion dollars to the state economy annually. That disconnect the military faces is similar for the maritime industry, making it all the more important that we as an industry take the time to tell our story.”

Ness laments (correctly), for many, the decision to not go into the maritime industry or the military never even surfaces because they do not see that it is still a relevant and viable option. Nevertheless, she sees huge opportunities for the maritime industry to benefit from transitioning service members, many with sea time that could come into commercial positions. “The unemployment rate for veterans is nearly double the national average,” she points out, adding, “Our industry can play a significant role in helping these men and women get jobs, while benefiting from, and filling crucial

positions with quality employees.”

Still, Ness says there is much to be done. And, while she concedes that are still significantly fewer women on the commercial waterfront, she nevertheless finds herself regularly meeting female captains, shipowners, maritime attorneys and engineers in the workplace. And, she thinks the bigger challenge is elsewhere, saying, “I’m a firm believer in getting kids involved at a young age because I know how greatly it impacted me personally. Find ways to support school programs to help bring maritime into their classrooms so students can hear about the magic of the first time a crewmember saw dolphins alongside. When we have the opportunity to show off vessels, even if it’s just from the pier, it gives kids the chance to see these incredible beasts. It will pay off for our industry in the long run.” Without a doubt, Caitlin Ness is living proof of that concept.



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Five Questions for *Four Women Professionals*

By Joseph Keefe

It isn't every day that you get to sit down and take insights from four business leaders, each from a different sector of the maritime and oil & gas industries. For example, Elida Calero is the Associate Director of Marine, Commercial & Technical Shipping with Faststream, a professional recruitment group that specializes in the shipping and oil & gas industries. Jurate Hellow is Vice President at Schaller Automation LP, a firm that produces crankcase safety protection by oil mist detection for marine engines. Bettina Nowak is Managing Director at Scanship Americas, Inc. Finally, Anita Odedra is Vice President, Global Shipping Business at BG Group plc. Each of these women has a different – and yet sometimes familiar – story to tell.

The growing presence of professional women in these industries puts a new face on something that arguably has, until now, been rather staid and stodgy. In November, we asked each of these maritime professionals just five questions about their career choices, what they like best about the business and why they chose it in the first place. The answers might just surprise you.

Career Choice: What brought you to the waterfront and/or oil & gas?

Anita Odedra, BG Group: I enjoyed science at school but I didn't want to do something theoretical, I wanted to see science put to use and that's why I went on to study geology at University. I also wanted the chance to travel, and the geosciences provided the perfect blend of applied science and the opportunity for adventure. I joined the oil and gas sector as an explorationist. I've never looked back.

Elida Calero, Faststream: I was very fortunate to have discovered the Maritime Industry. I use the word discover because it is truly amazing how the general population really does not understand how deep and vast this industry really is. I had a very limited understanding of an industry that really makes the world go round. Most people will think of Maritime and Oil & Gas in its most simplest of forms; a Captain, an oil

rig or a containership, but it really ends there. Prior to Faststream, I had run a business for about 15 years which manufactured skin care products for the medical industry. With the downturn of the economy, I had to downsize and then take my career in a different direction. It was just two months later, when I was told by a friend that Faststream was looking to hire individuals with extensive sales and management experience. I knew just from researching before interviewing with Faststream, that even if I didn't get this job, I wanted in. I threw myself into it head first and the combination of the recruitment aspect and Maritime seemed to suit me quite well. I was able to move up based on performance goals and have been recently promoted to Associate Director for the Maritime Division here in the Americas. I am forever grateful that Faststream took a chance on me.

Bettina Nowak, Scanship: A very good friend of mine already in the industry for many years introduced me to Henrik Badin, CEO of Scanship AS; he was looking to start the business in the USA, something we did with much success. Since then, we have worked together over 10 years.

Staying in the Business: Now that you are here, what intrigues you most and keeps you here?

Odedra: Climate change intrigues me. The need for fossil fuel energy intrigues me. It's a paradox. We can't live with it and we can't live without it. I believe that the oil and gas sector has a continuing role to play in providing energy security in a sustainable manner, whilst paving the path for less carbon and methane intensive sources of energy in the future. The oil and gas sector is often caricatured as a faceless set of greedy corporations. But we are real people who work in these corporations and we can effect real change. As an example, my shipping team has been instrumental in the design and delivery of the most efficient LNG ships on the water today, that are reducing greenhouse gas emissions significantly. I'd rather be in it and deliver change, rather than throw stones at it from the outside. As JK Rowling wrote, it takes more courage to



“In this industry, respect is not given it is earned, you will be tried and for sure you will be tested. This is where being stubborn and inquisitive helped me because when I set my mind to something I won't give up.”

– Elida Calero, Associate Director of Marine, Commercial & Technical Shipping, *Faststream*



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Jurate Hellow, Schaller Automation: Schaller Automation designs and installs Oil Mist Detectors for the ship engines. I admire our product's simplicity, quality and reliability. We protect ship engines from explosions, and at the same time people from the tragedy. I want to continue working in this field, and would like to learn more and create. There are still areas we need to improve, to search for the best solution and I want to be a part of all this. The company has offices around the world. I am in charge of their office for the North, Central and South Americas. I have many plans and ideas not yet been implemented and I work towards those goals, every day.

Nowak: Our core business focus is the Cruise Industry – a fantastic business to be in. Scanship is an environmental



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Anita Odedra,
Vice President, Global
Shipping Business,
BG Group plc.

“The oil and gas sector is often caricatured as a faceless set of greedy corporations. But we are real people who work in these corporations and we can effect real change. As an example, my shipping team has been instrumental in the design and delivery of the most efficient LNG ships on the water today, that are reducing greenhouse gas emissions significantly.”



technology company in the waste and waste to energy sector; we are continuously working on developing new technologies to meet new environmental regulations, something that is intriguing to me. I feel that I can help to provide a cleaner future, for my children, and all concerned.

On the way up: What is the number one thing that propelled you to where you are today?

Nowak: Ambition. I am a business woman working in a male dominated world; it was important to me that my professionalism is recognized.

Hellow: Good question. Thinking as a physicist has taken me a long way. Do not be afraid that you don't know. Just go, look for decisions, learn and choose the best one. And if you made a mistake, continue to look for better solution; do not stop. It is very exciting to search for the answer, because when you find a solution, you will feel as though you are a creator, and creation propels us forward, never back.

Calero: I think what has propelled me to where I am today with Faststream was being thick skinned, stubborn, and inquisitive. My initial challenges as a woman entering the industry without prior Maritime related experience was quite tough. The

obvious reason is this is a male dominated industry but this is not new to most industries when you get to certain levels, so you have to be thick skinned to survive. What I did find surprising was some of the woman who were veterans in the industry were just as tough as the men, if not more so. In this industry, respect is not given it is earned, you will be tried and for sure you will be tested. This is where being stubborn and inquisitive helped me because when I set my mind to something I won't give up until I have achieved my goal or have given it everything I have. I also was the kid growing up who would keep asking questions until I understood. This has helped me tremendously in recruitment because it's all about asking questions and listening to understand the needs of the different parties to be able to successfully put the pieces together. It is amazing the amount of knowledge that is gained by talking to the best of the best in your industry all day, every day.

Succession Planning: What are you doing to encourage more qualified women to take the same path?

Odedra: It is important to pick the best person for the job. Differences in gender, culture and ethnicity allow different ideas and strategies to thrive. This makes for a more inter-



esting workplace. When the staff sees that true meritocracy exists, they will make the efforts needed to follow their ambitions. A truly diverse work force is the result.

Calero: Being in recruitment it does put us in a strategic position where we can represent qualified women and help them get over some of the early speed bumps they face in their career search. When you have the chance to actually speak about someone's experience they become more than their physical traits, they become more than a paper resume to a prospective employer. There are certain stigmas that exist for women – for example, for certain roles the question would be, “can she handle a rough mariner culture?” By being able to turn that stigma into an answerable question, we can get these women on an even playing field that is experience driven. Faststream, as an organization, has just under 50 percent of our employees (globally) are women and 33 percent of our management team are women. It is important to lead by example, but at the same time, Faststream recognizes an individual by their achievements, not by gender.

Nowak: The Cruise Industry is a highly male dominated industry – at Scanship AS we are encouraging and supporting women who are already in our team to get further education



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“We protect ship engines from explosions, and at the same time people from the tragedy. I want to continue working in this field, and would like to learn more and create. There are still areas we need to improve, to search for the best solution and I want to be a part of all this.”

Jurate Hellow,
Vice President,
Schaller Automation LP

and experience to fill more management positions in the future. For new positions, we treat men and women applicants in the same, fair way and have experienced an increase in our female work force in recent years.

Mentoring: it's an important part of knowledge transfer, generation-to-generation. How do you get involved and what's your best advice for the aspiring female maritime professional.

Odedra: I subscribe to the Obama view that if you've been successful, you didn't do it by yourself; someone helped you sometime along the way. So, if you've been successful, you have an obligation to share whatever you've learned to help someone else. I mentor three women and one man in my company. They come from the legal, finance, commercial and trading businesses. I hope that sharing my experiences with them helps them to see another perspective to whatever issue they are grappling with. The best advice I have for any professional is that you spend a lot of time at work; so if you are lucky enough to be able to choose a career, rather than have to work paycheck to paycheck, find something that you enjoy. If

you enjoy it, you're more likely to be successful at it. Life is not a dress rehearsal. It is important to enjoy the ride. Success will come.

Hellow: To become a professional, successful woman in the maritime business, you should love the sea, ships and be prepared to work well with men. Everything else you can learn. The Maritime industry for so many years was dominated by men and they were doing very well. But, women can add value, and creativity to the equation.

Calero: Earlier on, I mentioned "in this industry, respect is not given it is earned, you will be tried and surely, you will be tested." This could not be more true to what I have experienced and still experience when encountering new clients or candidates. If you are going to not just survive, but thrive in this industry you have to come armed with solid knowledge in your field.

The women who have paved the way for other women and hold the titles that start with "the first woman to..." we seriously owe them our gratitude. Women in shipping have come a long way already and it is our job to continue their legacy with dignity.

Bettina Nowak,
 Managing Director,
Scanship Americas, Inc.



“The cruise industry is a male dominated industry – at Scanship AS we are encouraging and supporting women who are already in our team to get further education and experience to fill more management positions in the future.”



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**When it
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NMEC Means Business

Workforce Development is the central focus of the National Maritime Education Council. In choppy, uncertain economic waters, NMEC has a new business plan to standardize craft training processes.

By Joseph Keefe

The stated mission of the National Maritime Education Council (NMEC) is to lead the Maritime industry in the development, promotion, and implementation of standardized craft training processes. The collaborative, multi-regional, industry-centered national organization made up of industry stakeholders recently launched a new business plan that aims to reduce the cost of entry for companies desiring membership significantly. Beyond this, the effort – consisting, in part, of several new course titles, the last level of Structural Fitter, and the fitter journey-level assessment – further defines NMEC’s role as a national voice for workforce development for the maritime industry.

First established in March of 2012 with 12 founding members representing the shipbuilding and ship repair industries to oversee and fund the development of a national workforce development system, NMEC has evolved over time to meet many challenges. The shipbuilding and repair industry today has two challenges – actually four – but only two which it

Image courtesy of Continental Maritime of San Diego
(a Subsidiary of Huntington Ingalls Industries)

can arguably do something about in the short term. Facing a renewed onslaught of pressure from Jones Act naysayers who find themselves emboldened by all things, the tragic sinking of a U.S. flag cargo ship, U.S. shipyards are also seeing the beginning of the end of fat backlogs that, to a large extent, were fed by the latest, now extinguished 'oil boom.' These two issues, in the hands of politicians and the greater, global economy, will likely sort themselves out in due time. The issue(s) of finding and training a professional labor force, by itself, will not.


Regardless of the ebb and flow of this highly cyclical industry, all sectors of the maritime industry face a growing exodus of talent because of retirement and competition from other industries. Shipyards in particular find themselves in the unenviable position of having to fill those vacancies from a shrinking pool of workers. Worse, the skills gap that separates those who might want to earn a very good living in the nation's shipyards is significant, and it is growing. In response, the united approach represented by the National Maritime Education Council and its membership – anything but new – has stepped up decidedly into high gear.

According to NMEC Executive Director Tim Johnson and NMEC Chair Mike Torrech, NMEC's new business plan is designed to reduce the cost of entry for companies joining the organization by significantly lowering membership dues. In its infancy NMEC dues required a substantial initial investment based on the number of employees in the organization followed by annual dues at 10% of the initial investment. While a number of companies enthusiastically supported the creation and development of the NMEC, the original dues structured proved to be a deterrent to the growth of the organization.

When NMEC was first formed, membership required an up-front investment of \$20,000 for a company with 500 - 999 full-time employees, followed by annual dues of 10% of the up-front investment. Under the revised schedule, that same


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“Lowered costs and more cost sharing translate into better affordability for all and should encourage more companies to participate and create greater collaboration across the industry.”

– Jeff Allman, Manager Workforce and Training Strategy for NMEC member company Ingalls Shipbuilding

company would pay annual dues of just \$4,500. Mike Torrech adds, “The organization had 17 members prior to revising the dues structure. Since the new dues structure went into effect in September 2015, one shipyard has committed to join and several others have expressed interest in membership.”

Johnson explains, “The new fee structure is based on annual dues. For shipbuilders, ship repair yards, offshore marine companies, and skilled trade providers, dues are based on the number of full-time employees. Membership categories for affiliate organizations (i.e., trade associations, equipment manufacturers, suppliers, professional services companies, etc.) and educational providers are also available at a significantly lower rate than the original model called for.” For his part, Jeff Allman, Manager Workforce and Training Strategy for NMEC member company Ingalls Shipbuilding, is also bullish on the new approach. “Lowered costs and more cost sharing translate into better affordability for all and should encourage more companies to participate and create greater collaboration across the industry,” he told *MarPro* in October. That’s nominally good news for those firms lacking deep pockets, but the new business model goes even further.

In addition to establishing the new standard for maritime craft professionals when it comes to workforce development through the development and implementation of a national workforce system for the industry, NMEC made a strategic

decision to become an NCCER Accredited Training Sponsor (ATS) and Accredited Assessment Center (AAC). This move will equip NMEC with the value added tools that will help member companies navigate the NCCER system and select effective solutions for their particular workforce needs. In addition, sponsorship will allow NMEC to provide credentialing and certification services for members, especially those smaller companies who may not have the resources to seek NCCER sponsorship. Johnson agrees, saying, “As more companies come on board, the hope is that member companies will elect to become their own ATS/AAC program sponsors, who, in turn, will boost the growth of the system nationally.”

Maritime Curricula Development

NMEC’s formal workforce development system for the maritime industry, in partnership with NCCER – a not-for-profit 501(c)(3) education foundation created by the construction industry to develop standardized curriculum with portable credentials and to help address the skilled construction workforce shortage – is focused primarily on the development of maritime specific curricula and assessments, based on the NCCER model. In addition to seven course titles and/or assessments already available, the Maritime Shipfitting assessment will be piloted in the first quarter of 2016.

The maritime curricula produced by NCCER are standard-

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- Provides a centralized and consistent “national voice” for maritime workforce development.
- Serves as a conduit between the maritime industry (including offshore marine and skilled trade providers) and NCCER’s workforce development system.
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- Provides members with information and assistance on compliance with national and state apprenticeship program and applicable DOL regulations.
- Gathers and distribute global best practices and industry data as they relate to maritime workforce development.
- Works closely and cooperatively with national and local organizations that support the shipbuilding/ship repair/offshore marine industry.

ized, modularized, industry-driven, and task-based, and results in a portable credential when taught by certified instructors in accredited facilities. It is developed with input from subject matter experts (SME's) provided by NMEC member companies who meet to identify minimum standards and review content to ensure it meets industry standards. SMEs also provide input into the development and validation of craft assessments.

John Havlik, the Workforce Development Manager for NCCER, knows his way around the curriculum as well as anyone. The close relationship between traditional construction trades and those on the waterfront, he insists, make the partnership an easy fit. "NCCER, working with Subject Matter Experts, has developed construction craft curricula over the last 20 years. Many of these curricula – such as Welding, Pipefitting, Structural Fitting, Rigging, Electrical, Industrial Coatings and Insulation – also apply to maritime crafts. In fact, the construction and maritime industries work with many of the same materials, tools and systems. NCCER's comprehensive process of workforce development includes accrediting organizations, certifying craft instructors and offering industry-recognized, portable credentials. These credentials allow employers to view training and assessment transcripts of individuals to determine appropriate job placement or upgraded training needs."

As 2015 comes to a close, an already robust NMEC / NCCER curricula is being improved even further by NMEC and its partners. "Developing curricula and assessments is expensive, and NMEC's efforts to date have been funded primarily from member dues," says Johnson, adding, "In the next cycle, plans are to finish the Maritime Pipefitting program (Levels 3 and 4) and the Maritime Pipefitting journey-level assessment and to develop Maritime Electrical (Levels 1 and 2)."

"What is really exciting about the curricula is its flexibility. Because the industry-driven training is modularized, each task-oriented module can be used for specific task training, remediation, or as part of a larger course of study such as those offered by formal apprenticeship programs, high schools, community colleges, and for-profit training providers."

Widening NMEC's Reach

For those on the outside, looking in, perhaps thinking about dipping their toes in the NMEC waters, it is important to remember that NCCER's system is not new. Johnson adds,

NMEC Training Titles/Assessments

Maritime Core Curriculum	Maritime Shipfitting Assessment (*)	Maritime Pipefitting – Level 2	Maritime Shipfitting – Level 2
Maritime Core Assessment	Maritime Pipefitting – Level 1	Maritime Shipfitting – Level 1	Maritime Shipfitting – Level 3

(*) available 1Q 2016



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“Currently, the NCCER Core, which is the prerequisite to all of NCCER’s Level 1 curricula is being used in many secondary career tech programs in the U.S. to give high school students basic skills needed to continue training in the craft areas they choose. The NCCER *Core* and *Introduction to the Maritime Industry module* make up the *Maritime Industry Fundamentals* curriculum. NMEC’s ongoing role and the role of member companies in this process is to encourage the use of this curriculum in career tech programs in local high schools.”

Eventually, and in addition to giving students a basic portable credential and feeding the talent pipeline, it generates some much-needed awareness for the industry. Jeff Allmann says that efforts to expand the curriculum to a wider audience are being met with enthusiasm. For example, he says, “Thus far we have encouraged our public sector partners – community colleges and high school career tech programs – to adopt NCCER Marine Curriculum. Mississippi Gulf Coast Community College and Bishop State Community College have already done so.

Since the release of NCCER’s Maritime Structural Fitter curriculum in 2014, NMEC has seen success among industry and education partnerships. One example of industry working with education is Gulf Coast Community College’s relationship with Huntington Ingalls in Pascagoula, Mississippi. Another partnership is between Austal USA and the Alabama Industrial Development Training facility in Mobile, Alabama.

Coming Soon: Meaningful Assessments – and more ...

For mariners, “assessments” have become standard practice in determining an individual’s ability to accomplish the tasks that he or she has been credentialed for. These assessments are now commonly used to determine which individual might get promoted, as well as to pre-screen potential employees. Similarly, in 2016, NCCER will release journey-level knowledge and performance assessments for its Maritime Structural Fitter curriculum. NCCER’s Maritime Structural Fitter journey-level written assessment is based on the Maritime Structural

Fitter curriculum and evaluates an individual’s knowledge of the craft. Assessment questions correlate back to competencies and modules in the curriculum so a training prescription can be provided.

NCCER’s Havlik takes it a step further, saying, “The training prescription a candidate receives after completing the assessment includes a transcript of the test session showing where the individual needs improvement and referencing specific NCCER training modules that pinpoint particular tasks and objectives for additional training. These detailed training prescriptions allow contractors to immediately develop a skills-upgrade training plan tailored to address the exact skills the individual needs to improve for career development. Through upgrade training, individuals can acquire valuable skills while earning credentials for training completions.”

In early November, U.S. DOT Secretary Foxx released new shipbuilding and repair data at the Shipbuilders Caucus forum, hosted by the Navy League and Shipbuilders Council of America. The new data shows that the shipbuilding industry is in fact growing, supporting more than 110,000 jobs from coast to coast and providing more than \$37.3 billion in annual GDP. As such, any thought that a cyclical slowdown for domestic builders also portends the end of the need to recruit and train a new generation of mariners is simply shortsighted. For its part, the stakeholder-supported NMEC is making sure that mistake doesn’t happen.

As NMEC seeks to be an advocate for the industry as it relates to issues involving workforce development, it has also become a resource for relevant national workforce data that can be used by employers and to inform policy makers about the workforce needs of the industry. The shipyard industry has plenty of needs. Job ONE, however, is the development of another generation of shipyard workers. At NMEC, in concert with myriad industry stakeholders, that process is well underway. A widening curricula, provided at an (even more) affordable price, holds the key for the way forward.

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The Humanity in a Shipyard



Courtesy Meyer Werft

Not everyone could – or would – step up for the coming torrent of refugees. German shipbuilder Meyer Werft is one entity that did.

By William Stoichevski

It is United Nations week, and children in Europe are asked to offer a toy and a thoughtful card to traumatized kids arriving as refugees from Syria, North Africa and Afghanistan. The refugees represent what European leaders individually say is a human torrent of between 350,000 and 700,000 souls. The Continent's most telling migration since World War II is bringing out the best in some and the worst in others. Offering to train rather than turn away refugees is German shipyard Meyer Werft, builder of the luxury liner, Norwegian Escape.

The latest figures come out, as the ruin of a temporary lodging for refugee children in southern Sweden smolder following an eleventh arson attack on a refugee center — in October 2015 alone. Police, reports Norwegian NRK, “are not ruling out hate crime.” The attack came as children slept, the latest in a year of burning asylum centers in Sweden, where a right-wing party has surged to within reach of parliamentary power.

In Germany, anti-immigration protests have grown large and loud, while the tolerant form human shields at asylum centers. Chancellor Angela Merkel is described in press reports as “under siege” for agreeing publicly to admit tens of thousands of the war weary still landing on Greek shores from Turkey; still pressing through the Balkans and still pleading for asylum in Europe. The European Union has pledged a billion euro for crisis management.

Meyer Werft Steps Up

It's against this backdrop that Meyer Werft announced it would train refugees with the Catholic youth organization, Johannesburg. An institution in Northwest Germany, Johannesburg has a century of experience finding ways to educate those battling “socio-psychological” circumstances.

“For us it was political,” says Meyer Werft spokesman, Peter Hackman, on the training partnership and the need to take a stand amid the feelings stirred by refugee columns. Hate runs counter to the goodwill that keeps order aboard a 164,000 ton luxury liner entertaining 4,200 guests with an international staff. As early as winter 2015, the Meyer-Johannesburg training program will begin offering as many as 30 people courses toward earning certification as a “metal technology specialist” or “construction mechanic” and possible work at the yard. The shipyard's partnership with Johannesburg — which says it helps up to 600 youth aged six to 21 at any one time — will help refugees “prepare themselves” to qualify for a future profession.

“We're talking about young refugees, some with families and some the kids on their way through (the Balkans) from Syria or North Africa,” says Hackman. Johannesburg will offer language and integration training, Meyer the specialist training modules. For now — as elsewhere in Europe — getting refugees housed and children in school by winter is the

Image above

People power: Meyer staff marvel at their achievement.

“We’re talking about young refugees, some with families and some the kids on their way through (the Balkans) from Syria or North Africa. (We) see this measure as setting the right signal to help people in the current situation and offer them a perspective for the future.”

– Meyer Werft spokesman, Peter Hackman

Sheltered environment:
Meyer Werft’s incredible work space
Courtesy Meyer Werft

priority. “(We) see this measure as setting the right signal to help people in the current situation and offer them a perspective for the future,” the yard says.

Northern Crisis

It’s fine work for a large European yard, but for the many small yards of, say, Norway, the economies of scale just aren’t there — nor is the economy. Local yards are keeping an eye on what Hackman calls “the fluid situation.” At Norway’s Arctic border crossing with Russia, refugees on bicycles (to avoid a Russian law against crossing on foot) have their hotel stays paid for by a refugee center operator hired by Oslo. Billets for 100 bicycle-riding refugees include stately Statoil and a giant barracks it keeps for contractors attending the offshore projects of Arctic town Hammerfest.

At nearby shipyard Kimek in Kirkenes — a town farther east than Istanbul — production boss Jorn Pedersen has plenty of experience training foreigners (and learning from them), and Russian ships and seafarers are regulars at the covered yard.

“It depends on the work,” he says on the difficulty of training newbies. “Some work takes two or three months to learn, but to learn (ship repair in full) takes up to 10 years. Our people can do many things, but a larger shipyard doesn’t need as long to train,” he says. He suggests larger yards have the luxury of keeping training simple and repetitive. Asked if he would train refugees, he was clear: “I wouldn’t have done that. It’s too much work because we’re a small shipyard.”

The Jobless vs. Refugees

According to national statistics keepers in Norway, some 25,000 “young men” have lost their jobs so far this year. A decade-long offshore vessel order boom has given way to oversupply. Headlines point squarely to layoffs at yards and offshore suppliers, and Pedersen admits it would be brutal to train refugees in the current environment.

His reply is partly backed up by the official “No comment on that issue” we got from the Norwegian Ship Owner’s Associa-



tion. Ship owners here also own yards and training centers for seamen, but courses require prior relevant education. Few of the new arrivals have that, according to statistics keepers SSB.

Back at the bicycle border crossing, Norwegian Aftenposten reports border authorities as saying 5,000 refugees could descend on sparsely populated northern Norway by year’s end. Over 1,000 have crossed. Yet, clouding the picture for shipyards and extremists alike is a barrage of conflicting and contrived messages on the refugee “crisis” from economists, statisticians, politicians and journalists.

As we write, Finance Minister Syv Jensen (Progress Party) is seen putting the cost of the refugee crisis at 9.5 billion kroner for 2016 and 10 billion kroner over the following two years. She says 4.2 billion kroner will be diverted from international aid to address the crisis of housing and training refugees (Norway and frontline nation Bulgaria both have about 5,000 places available for refugees, according to the UN High Commission for Refugees). Jensen says the refugees force “prioritizing”, “the price” to Norway of being “kind.”

Peculiar Timing

In the run up to Jensen’s sober tally, the costs of immigration and of a foreign work force had been bandied about by the SSB. In a report the SSB co-authored, economist Roger Bjornstad’s “societal” analysis tells Norwegians that immigration slows salary growth. He says the collective bargaining





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that “set a minimum wage” on foreign workers to avoid their overuse has stymied “national salaries.”

“The analysis in the report has confirmed that the strong growth in labor immigration the past decade has created less growth in employment among national labor, weakened salary growth and increased salary differences in affected industries and professions,” Bjornstad’s report maintains. Norway’s foreign workers, largely Polish, have at times been half of the 600 to 1,200 workers at the busiest Norwegian shipyards.

Within hours of NRK reporting Bjornstad and the SSB’s findings, the story appeared on a popular Norwegian building industry Web site. The report Effects of Universalizing Collective Salary Agreements cites U.S. and French economists Robert Solow and Thomas Piketty in concluding that a loss of industrial direction occurs “in periods of high labor migration.” Other ill effects of foreign labor on a suddenly vulnerable Norwegian economy are a reliance on people rather than capital and technology.

Back in Germany, where Hackman has been busy with the launch of a new Breakaway Class cruise ship, he told *MarPro*, “There are no people yet for photographs.” Refugee trainees won’t be arriving for weeks. Hackman says he doesn’t think government (or European Union “crisis” money) is part of the training scheme. “We’re not training thousands, and we don’t guarantee they’ll be employed a decade on,” he admits. “But perhaps the training gives them a chance.”



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RADM
Francis X. McDonald

As he works to deliver a cutting edge maritime education and curriculum, the newly confirmed 38th President of the Massachusetts Maritime Academy also looks to the past. Tomorrow's Maritime Professional will therefore contain a little of both.

By Joseph Keefe

Less than six months ago, RADM Francis X. McDonald was unanimously confirmed as the 38th president of the Massachusetts Maritime Academy (MMA). Founded in 1891, the Academy offers seven undergraduate and two graduate majors and is one of two “special mission” public universities in the Commonwealth of Massachusetts. McDonald’s appointment is particularly significant in that the academy’s decision to hire from within ensures not only continuity for the school’s mission, but also places the proper focus on what McDonald has already accomplished on campus; service spanning more than two decades. Nevertheless, and with the academy’s 125th anniversary (2016) looming large in the proverbial porthole, there is still much to do. *MarPro* sat down with McDonald at the Buzzards Bay, MA campus in October to get a sense of what will come next.

From Cadet to Admiral

Thirty years after his graduation from MMA, McDonald finds himself not only back on campus, but also in charge of a school steeped in history and tradition. As MMA rapidly evolves to meet new challenges, McDonald says that the decision to return to the academy was an easy one. “What keeps me here is the people and the product. From my first year here back 20 years ago working in career services, getting to know the cadets, getting connected to the cadets, I’d do anything I can to try to remain connected with them. It is such a unique product that we put out there; it just makes work fun every day and different every day.”

Upon graduation from the Academy in 1985, McDonald pursued an engineering career and earned a Master of Science in Management from Rensselaer Polytechnic Institute. He returned to his alma mater in 1995 to serve as Director of Cooperative Education, a role in which he developed and implemented the cooperative education program and dramatically increased placement rates for undergraduate interns and graduating seniors. Appointed as Dean of Enrollment Management in 1999, he led the rebranding of the Academy which resulted in a dramatic increase in numbers and diversity of incoming freshmen. He has since served as Vice President for Operations, heading up a major campus building expansion, and as Executive Vice President. McDonald also holds a Doctor of Law and Policy

from Northeastern University and has served as an adjunct professor in the Academy’s emergency management graduate program. He assumed the role of President in August 2015.

McDonald actually didn’t start out at the Academy, nor did he see himself wearing a uniform. Right out of high school, he first attended the University of Massachusetts and pursued a degree in mechanical engineering. Early on, however, he watched as his brother, also a Mass. Maritime graduate, launched an exciting career leveraging the academy and its unique regimental formula. Eventually, he transferred to the school and immediately fell in love with it. The fire in that ‘romance’ has since stood the test of time.

McDonald told *MarPro* in October, “I loved my time at the academy as a cadet. And I always thought that I would return to work here after retiring. When I graduated and went to work in the power plant industry, shipping was dead flat. The only people going out to sea had to sail as AB’s or as oilers.” Still, McDonald stayed in touch with the recently retired ADM Richard Gurnon, helped him on open houses and would come down and speak to the cadets. Eventually, that relationship led to a spot on the Academy’s Engineering Advisory Board. Part of the Advisory Group that started the first diversification of majors – something the academy had to do in order to merely survive – McDonald immersed himself in the task, starting with the facility and plant engineering proposal, all the way to finding co-op positions for those new students. The effort eventually brought him back in a full time role.

Mentors & Management

McDonald had good mentors coming up, but he has especially high praise for the man he replaced at the academy’s top spot. “When I showed up here as a cadet, I still had some growing up to do, and what I learned from Rick Gurnon was that you must accept the consequences for your actions. And it was that kind of accountability and that kick-in-the-butt that I needed. When I came back, Rick was the Vice President and he was to me a mentor, a friend, and a role model.” Like Gurnon, McDonald has over time become one the academy’s biggest advocates.

For his part, McDonald insists that his inclusive management style is time-tested, through many venues and professional situations. “You get more done if you try to lead in a

The Change of Command Ceremony at MMA, with Maritime Administrator Jaenichen (right) looking on in the background.



Image courtesy MMA

“You get more done if you try to lead in a collaborative format. You lead by example; you try to lead with enthusiasm, and in higher education, that holds true, as well. So the model of shared governance on the campus, the role that the faculty can play, is critical to advance the college. I’ve seen other institutions where somebody came in with a command and control mindset that built more walls than anything else.”

– RADM Francis X. McDonald, President of the Massachusetts Maritime Academy.

collaborative format. You lead by example; you try to lead with enthusiasm, and in higher education, that holds true, as well. So the model of shared governance on the campus, the role that the faculty can play, is critical to advance the college. I’ve seen other institutions where somebody came in with a command and control mindset that built more walls than anything else.” McDonald sees his role as the lead salesperson for the college, trying to anticipate what’s over the horizon, and then sharing that vision or conversation with his colleagues on campus. It has been a winning formula for McDonald, for Gurnon before him and – for the school itself.

MMA: the Modern Maritime Academy

McDonald presides over an academy that has changed significantly over time, but also one which retains what he characterizes as the best of the past. On one hand, says McDonald, today’s student is more accountable, more technologically savvy, and more focused. That same student, however, often has far less real ‘street smarts.’ But, he insists, “That said; we have a student that is measured far more often with greater consequences than we were ever measured.”

The grueling orientation period remains, but has changed, over time. A ‘knowledge’ exam in addition to physical requirements must be passed in order to make it into the regiment. McDonald explains some of the changes by saying, “We try to be smarter about what we do – and do it with a purpose. For example, when we looked at graduating from orientation, making it through those first two weeks, the focus of it was to get that freshman class to connect as a team. The fraternity-style hazing that went on in the 70’s and certainly spilled over into the 80’s, is no longer part of the program. I’d like to say it never, ever happens, but it certainly is not part of the program. On the other hand, the regimentation and the accountability have increased tenfold.”

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U.S. Maritime Administrator Paul “Chip” Jaenichen congratulates RADM McDonald as he assumes the position of President, Massachusetts Maritime Academy.



Image courtesy MMA

balanced by increased regimentation. Beyond this, McDonald says that the school has invested heavily in ‘student success’ programs. These include Monday through Thursday night tutoring sessions, peer tutoring, cadet-to-cadet, paid academic tutors, and a Learning Resource Center. All of it is part of the tuition. McDonald insists, “It has really paid off for us – in the numbers of students that make it through orientation. After that, if we can get a student to the first day of class of sophomore year in good academic and conduct standing, then they are going to make it.”

With modern infrastructure, an updated and expanded curriculum and adherence to the time-tested formulae of the Regiment of Cadets, the academy, with McDonald’s guidance, has been in a steady growth mode for the past ten years. Looking ahead, he sees more growth for the nation’s oldest con-

tinuously operating maritime academy. “The plan right now includes minor course corrections, but not a major overhaul of the direction that we’re headed. The 5-year plan calls for us to continue to grow, but at a slower pace. We’ve had wonderful success. We’ve probably grown 70 percent over the past decade,” he said.

Nevertheless, McDonald sees the campus growing even more, once the infrastructure and staffing catches up with the increased headcount and expanded academic opportunities. Today’s enrollment of 1,500 will swell to as many as 1,650 by 2020, with another 150 graduate students (including the school’s third Master’s program) enrolled, as well.

The final piece of a dorm expansion is also coming. Also on the drawing board is a 30,000 square foot academic building with four custom engineering labs, classroom office space, as well as an



McDonald Weighs In:

Fitting license track education into 4 years:

"We're at or close to that tipping point. The license-track students can make it through in four years. But it is a tightly-choreographed process. If the next round of STCW or the Coast Guard adds two or three more requirements, then that might be it."

Capping enrollment in majors: "Right now, all of our majors are capped. First and foremost, we are trying to build an efficient program. If we're not capping majors, we spill over to the next section size that requires new faculty for that half a section and it becomes a very inefficient way to deliver knowledge."

The (proposed) Maritime Academy Training Ships:

"There is more good news right now around this issue than ever before. This is a priority for the maritime administration, in particular, the maritime administrator. I have never seen even this much momentum. We're optimistic that Transportation Secretary Fox has included a significant 'ask' for the FY '17 budget."

What Has Changed at MMA: "You look at the amount invested, the high-tech labs, engineering labs that are now just spectacular with gas turbines, with steam turbines, with an operating steam plant here in a shore-side lab. You look at the simulation on the other side for the deck students."

What Hasn't Changed at MMA: "The cadets still don't mind getting dirty, investing some sweat equity for a payoff four years down the road. And an exciting part of that sort of dichotomy is that it doesn't look and feel like the same place, but if you get to know these students, they're just like your ship-mates – a lot of first generation, a lot of blue collar kids, a lot of life-changing opportunities for these young people that are willing to work hard. That's an important piece of what we have going here that really hasn't changed at all."



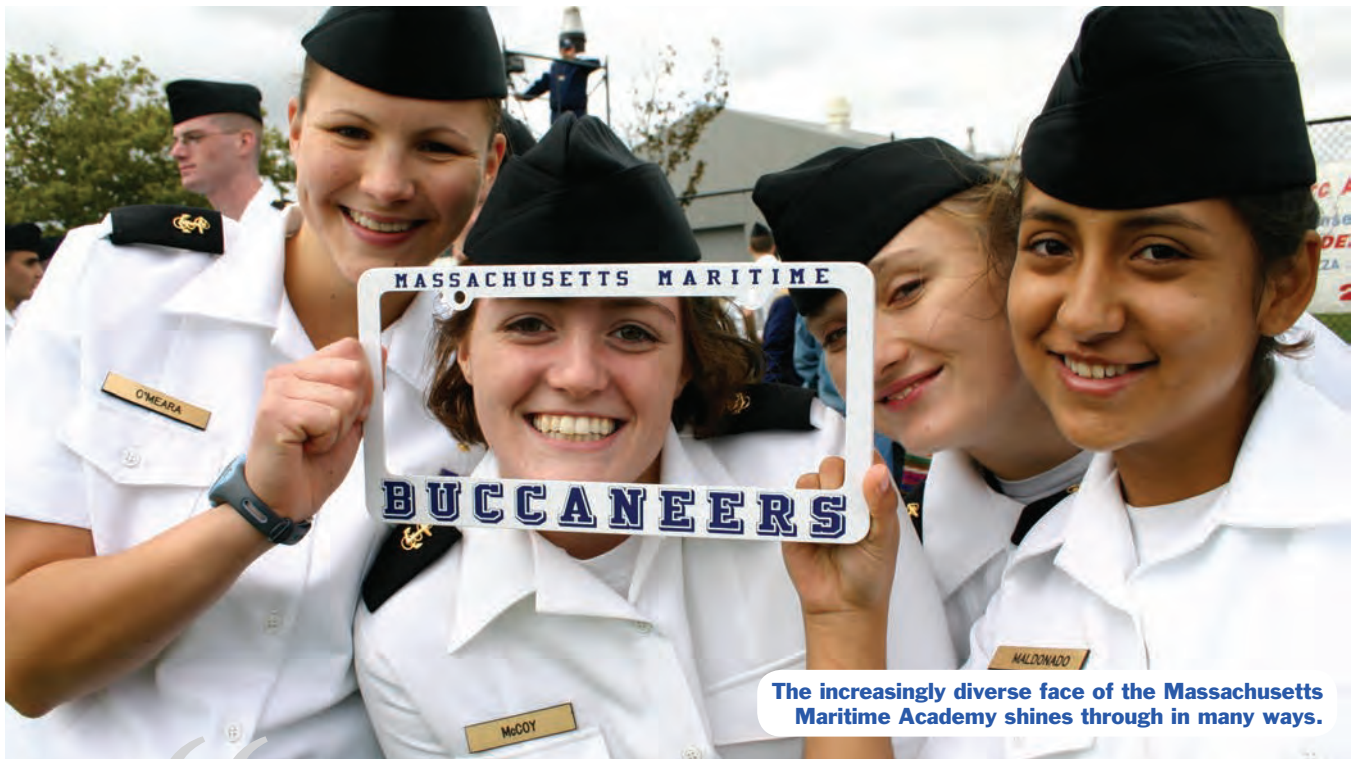
The modern maritime academy includes renewable energy and LEED certified buildings.

\$8 million expansion to the gym and a stand-alone turf field house. McDonald says the latter work is needed because, "for all the work that's already been done and with the increase from 800 to 1,500 students, the only building that really hasn't physically expanded is the gymnasium itself."

The growth also comes with plans for changing how the knowledge is delivered to students. For example, increased commitment in the use of technology will help transform the traditional classroom-delivered instruction into one which involves a hybrid of online lectures, more problem-solving in the actual classroom, as well as ramping up the use of simulation. McDonald explains further, "The next big simulator that's on our horizon is an emergency management simulator for our Emergency Management program. In these last two or three years, that's actually the fastest-growing of the undergraduate programs."

The last piece of the 5-year plan involves goals that McDonald and his staff have set for the academy in terms of gender diversity and students of color. "The plan is to grow from about 12% gender diversity to 20%, and currently floating at about 8% with students of color, the plan is to grow to 15%," McDonald says, conceding, "And, there are challenges with both of those, of course."

The 10 to 15 year vision hasn't been overlooked, either. McDonald says, "That's a work-in-progress right now. That plan would certainly be to have a new training ship, probably a student body in the neighborhood of 2,500 because our plan would still be to continue to grow, and possibly begin to look at professional doctorate programs," he said, adding, "and probably the last piece of that puzzle is to look at the possibility of an out-of-state satellite campus."



The increasingly diverse face of the Massachusetts Maritime Academy shines through in many ways.

Image courtesy MMA

“The plan is to grow from about 12% gender diversity to 20%, and currently floating at about 8% with students of color, the plan is to grow to 15%,” McDonald says, conceding, “And, there are challenges with both of those, of course.”

– RADM Francis X. McDonald,
President of the Massachusetts Maritime Academy

Charting a Different Course Line

Having played a role in the building of a bigger and better campus in the twenty years that preceded his appointment to the President’s job, McDonald also knows that if there was one thing that resonated with the people who were choosing the school’s next chief executive, then the subject of diversity was that hot button issue. Indeed, it was a central plank of McDonald’s ‘pitch’ to the board as he applied for the job. Doing that and also maintaining academic standards is, however, another thing altogether.

In terms of increasing diversity at the academy, McDonald says, “It absolutely was a big part of what I thought was needed for us moving forward and part of where I’m trying to focus a lot of energy. Certainly, there is a model in higher education that says one way to do it is to open up the standards. There are a lot of reasons to do that: it’s probably the cheapest way to do it. It’s probably the most convenient way to do it, but

there are a lot of reasons not to do it that way. You’re looking then at retention rates changing, you’re looking at graduation rates changing, you’re looking at people who might be coming in sub-standard who then take out loans to make it happen, who then don’t graduate, are saddled with loans, and you’re looking at starting to change the product coming out the other side. So we have no intention on pursuing that method. What we’re trying to do is to go after, create and motivate a qualified diverse pool.” McDonald adds for emphasis, “That’s not easy, because the industry itself isn’t that diverse. This is an industry problem, an Academy problem, a high school problem and a middle school problem.”

McDonald says that the place to start is by talking to middle school students, adding quickly, “You can see some of these programs starting like that. It’s a goal of Women on the Water. It’s a goal of some of these STEM partnerships. If there’s an industry initiative and they’re looking for connection and support



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from Mass Maritime, from the academies, we're there. We're doing our own partnerships and we're also doing a heck of a lot of work with high schools and middle schools. For example, we run the ASLP program – Advanced Studies in Leadership Program – for regional Cape Cod students in the top 10 percent of their class.” And while Cape Cod isn't necessarily diverse from a racial standpoint, the program has been quite successful in terms of gender diversity. As much as 60 percent of the middle schoolers that visit campus are girls, reinforcing the idea that they too can be a ship captain or a ship engineer. McDonald went on to list three or four additional programs that the academy not only partners with, but actively supports. He explains, “It is these types of efforts that we have to invest in if we're going to get a qualified diverse pool, and not slide down into opening up the standards.”

Brown & Blue ... Water

Like the majors that opened up the curriculum, a changing seagoing job climate has shifted the academy's focus ever so slightly towards brown water, although not necessarily away from the traditional unlimited license track cadets of old. “We have not diverged to the point of offering a limited license, McDonald says, adding, “We try to get everybody out the door with all of those options still in play.” That said; the Academy prides itself on staying current with industry trends. Today's faculty ship out in the summer, investigating new opportunities with sabbaticals, and all MMA majors have an industry advisory council made up of industry professionals – some alumni and others from different places. These individuals take a look at the curriculum once or twice a year, offer some constructive criticism, and talk about trends in industry.

McDonald agrees that the view of so-called brown water work has indeed changed. “Twenty or thirty years ago, if you said you were starting with a tow-

ing company, a classmate might assume that you couldn't find another job. A couple things have changed: one, the technology and the requirements in the industry have changed where that job is much more difficult. Secondly, the accommodations on board have improved. And, we're seeing a graduate who has a stronger interest in the kind of rotation that they offer, 14-on, 21-on, as opposed to, you know, 2 months, 6 months. And, the money gap between brown and blue water has closed measurably, if not completely disappeared.”

For all those reasons and more, it made sense to invest in the 360 tug simulator, a small tug fleet, including a barge. At this time, the extra piece is an elective – two electives in the deck program for students who are particularly interested.

Looking Back, Moving Ahead

Today's Massachusetts Maritime Academy finds itself on a steady course,

with familiar Leadership driving the latest in technology and infrastructure, all vectored into an effort to bring a high quality education to an increasingly diverse student body. Fran McDonald would be the first person to tell you that it remains a work in progress.

That said; the groundwork for what is to come next has already been firmly laid. Those efforts are already yielding fruit.

Without a doubt, the Academy today is in good hands. Leveraging the best from a storied past, leadership from within the ranks and a cogent look ahead towards what remains to be done, Mass. Maritime is redefining the notion of how a maritime professional should be developed and, just as importantly, what that individual can do to shape the next 125 years on a global waterfront. Fran McDonald wouldn't have it any other way.

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Image courtesy: Fritton (2011)

Oil Downturn Gives FPSO Labor Market Pause

Depressed prices, cost reductions put workers on notice.

By Patricia Keefe

It's starting to look a lot like, well, not Christmas, that's for sure. The buzz at the 7th FPSO Vessel Conference in Houston earlier this month was about the likelihood of a prolonged downturn in oil prices, much like what happened after the oil crash in the mid-1980s, when fallout from the massive layoffs, project shutdowns and bankruptcies took a toll for years.

"The market is going to hell – there is very little happening right now. There are a few studies and not many new projects," said keynote speaker Peter Lovie, senior advisor, floating systems, Peter M Lovie PE, LLC. There will be a few places where field development is economic at \$50/barrel, with smaller vessels producing smaller amounts, but many less than a few years ago, he added.

"This will be different from the downturn of '09, where there was a big recovery the following year," Lovie warned, citing recent comments from BP CEO Robert Dudley and others that the current depression in oil prices will prove to be longer than anyone expected, possibly extending through 2018.

"FPSO orders are drying up, and in 2015 it's looking more and more like MODUs in 1986," says Lovie. "Companies cutting back on CapEx has had a big impact on proceeding with FPSO projects," adds Jim McCaul, President, IMA/World Energy Reports.

There are two oil prices that drive investment decision in new FPSOs, according to McCaul: The price that prevails over the few years in which the decision is being made; and the expected price once the FPSO comes into operation, typically 3-4 years down the road. "The price today affects how much cash is available for spending, but the expected price in four years is really what's relevant."

Given the time lag between orders and delivery – McCaul expects the number of FPSOs to increase in the foreseeable future as the industry was averaging 10-12 new orders a year over the last decade, even though new orders have virtually stopped.

So from an employment perspective, the picture is not all gloom and doom in the FPSO market, say recruiting firms. Companies that over hired last summer and up through 18 months ago are in the process of "rightsizing," says Eric Peters, managing director for the Americas, Faststream Recruitment, Ltd. He adds that companies also are trying to shift labor from a fixed to a variable cost.

The FPSOs coming on line will have to be built, readied and crewed, so there are jobs, but candidates will see some distinct changes: very specific job requirements, a movement onshore, a move toward contracting over fulltime employment, and more responsibility for retirement planning.

A Sevan FPSO model 300 built in 2007-08 at Yantai Raffles (hull), Keppel Verolme (topside integration) and Nymo (gas compression plant). It is nearly complete here at the Nymo yard at Eydehavn, Arendal, Norway.



A couple of consulting companies at the conference tried to say there were a lot more orders coming, but the guys who make a living at it weren't having any of that. I see nothing to indicate that 2016 and 2017 will come back great.

– Peter Lovie, senior advisor, floating systems, Peter M Lovie PE, LLC

The First Cuts Were the Deepest

Sixteen months into the current pricing collapse, the oil majors and independents reporting quarterly earnings in October sang variations on “lower for longer” like canaries in a gold mine, rolling out plans for more cuts and CapEx reductions for 2016 through 2018, with an emphasis on deep water. “Deep water has been decimated,” says Gladney Darroh, President, Piper-Morgan AEI Energy Exploration, Production, Chemicals and Related Services.

Oil and gas-related job losses to date since last July are estimated at about 200,000, and counting. Layoffs are expected to continue, albeit it at a slower pace and with smaller hits, as companies continue to focus on their new top priority - cost-cutting to the bone. Among the discards? Generous benefits and perks from the gravy years.

While the FPSO sector has not seen the devastating workforce reductions enacted by the oil majors and service companies, there are definite signs of stress. SBM Offshore, one of the big three FPSO contractors, has cut at least 1,200. Contracts are being shortened and canceled. Oil prices will force the decommissioning of some FPSOs nearing the end of their life cycle that aren't profitable at \$50/barrel, says McCaul.

“If you think environmental regulations are tough when you put a vessel out there, it's doubly tough when you decommission,” notes Darroh.

In terms of new orders being placed, 2015 has turned out to be the worst year ever, with just three orders valued at \$1.5 billion versus last year, which saw six orders of significantly higher value in the first half of the year. Given project development cycles, the impact of these few orders will hit home in 2019. As of 2014, the market stood at 156 active FPSOs worldwide, another 41 on order and 16 available for work.

Market research companies have all issued FPSO and FPS market reports this year, covering 2015-2020, and most see new orders and existing work picking up markedly, if not significantly, next year or the year after. Lovie is skeptical. “A couple of consulting companies at the conference tried to say there were a lot more orders coming, but the guys who make a living at it, weren't having any of that. If prices are bouncing around, “I don't know why you'd commit as an operator worried about uncertainly. Everyone follows the operators. I see nothing to indicate that 2016 and 2017 will come back great.”

Neither, apparently did the attendees at the 16th FPSO World Congress conference in September, who generally expect things to stay the same or get worse over the next year.

That would portend more layoffs hitting the FPSO market, more contract cancellations and more talk about consolidation and decommissions in 2016.

Job Hunting Over a Barrel

With oil sloshing around between roughly \$45-to-\$55/barrel, now is not the best time to be looking for work in the sluggish FPSO industry, which is barely half what it was last year. But neither is it the worst. There are jobs; there is work on FPSOs out in the field. “It's cautious, not all doom and gloom,” says Peters.

“The busiest areas we see right now are technical ship and vessel management positions and the shipyard,” says Faststream's Peters, who is also cited postings on the engineering side – mechanical, electrical, instrumentation – mostly on the top side. Marine technical assurance people are also in demand. The mid-stream sector is still quite busy. Clients are still hiring crew, but core crew only.

In the hot and messy Brazilian FPSO market, companies that are in the production phase need personnel to run and

Snapshot: FPSO Outlook 2015/2016

Attendees at the late September 16th FPSO World Congress 2015 were asked how low oil prices have affected FPSO contracting and execution. 45% see fewer opportunities; 35% saw delays in the decision-making process for new projects; and another 20% saw projects and orders being put on hold or frozen.

Most (48%) expect oil prices to reach \$50-\$60/barrel while 35% are expecting \$60-\$70/barrel. A majority see the market staying the same or slowing down in 2016: 40% slow down, 27% no change; 14% strong consolidation, 19% get better.

Top challenges facing the FPSO market?: Only 19% cited oil prices: 37% on-time delivery; 33% cost control, 30% project execution, engineering and design, 23% competitive market.

Most projects are at the execution stage (81%) and are comprised of conversions (85%) versus newbuilds. However, most companies (71%) are looking at new builds in the next two to three years.

And the top investment priorities over the next 12 months for vessel contractors?: Design consultancies (81%), asset integrity (75%), engineering services (68%), and topside technologies and EPCs, each at 63%.

Source: FPSO Network, FPSO World Congress



“The price today affects how much cash is available for spending, but the expected price in four years is really what’s relevant.”

– Jim McCaul, President, IMA/World Energy Reports, commenting on the two oil prices that drive investment decision in new FPSOs.

operate their facilities, says Damir Tomicic, managing director, South America, Swift Worldwide Resources LLC. “We are absolutely hiring, mainly for the operating and producing phases.”

Tomicic says Brazil expects to order 25 out of the 65 anticipated new FPSOs over the next four years, or 40% less than what Petrobras originally planned pre-scandal. Those 65 FPSO will need about 150 people each, which amounts to almost 9,800 new positions in the industry overall during the next four years, he noted. A key change is that these facilities “will be built to exact specifications, to try and do it as economically as possible to mitigate the low price of oil and low ROI,” Tomicic says. Project management skills are going to be paramount in the new era of serious cost controls.

That’s not the only thing sticking to spec. The jobs that are posted will be very specific in terms, says Darroh. “If they want six years of experience in the Gulf and someone has six years elsewhere in the world, they may say no now. Three years ago they’d say ‘deep water is deep water.’ Now they have to meet every single criteria and almost walk on water.”

Generally, operators are looking for the most experienced

people “who really know what they are doing, to control projects and get it done,” says Lovie. “There is no shortage of talent, but there is a shortage of very capable and highly experienced personnel,” agrees Tomicic.

There is also a palpable skill set shortage on the tech side of the marine industry, says Peters. “Fewer people are going to maritime schools; fewer go out to sea and those who do, stay out less time. When they come to shore side, they are not as ready as they should be, they don’t stack up to those who came shore side 10-15 years ago after working on highly technical equipment,” says Peters.

Regardless of skill set, there are opportunities for those who can be flexible about where the work is located and into which industry it falls, and who can accept the probability of lower pay for a period, says Darroh. “They have to be prepared to take a cut, to take a step back to go two forward.”

This is truer for the naval architects and engineers of various stripes working in specialized niches in FPSO right now, versus those holding more generic seaman jobs, he adds. “These are smart people to begin with and good engineering skills are transferable.”

FPSO Mystras at work off the shore of Nigeria



“These are smart people to begin with and good engineering skills are transferable ... They have to be prepared to take a cut, to take a step back to go two forward.”

– Gladney Darroh, President,
Piper-Morgan AEI Energy Exploration,
Production, Chemicals and Related Services



Go Onshore, Young Mariner!

Darroh and Peters see more jobs and more workers moving onshore, particularly with mid-stream companies. Engineering and construction companies do a lot of onshore work. Tugs and barges need people, as does the maritime construction industry as a whole, says Darroh. And, says Peters, there is a massive shortage of people on the maritime side of ports.

That many of the skillsets used in the FPSO market are transferable to other industries provides both a safety net for workers and a way out of the more volatile aspects of the industry if not an exit strategy.

The more highly skilled and degreed workers have the advantage of being able to apply skills such as those needed for engineering to other areas such as shipyards, especially in the U.S., where shipbuilding is going gang busters, particularly inland, and in downstream sectors like refineries and chemical plants, which have the added appeal of experiencing less blow back from the ups and down of the energy market, say Peters and Darroh. To that point, those businesses were cited recently by companies like Chevron and ExxonMobil as offsetting significantly reduced profits in other parts of their business.

Strategies for Today and Tomorrow

With the proverbial handwriting on the wall, FPSO workers need to start thinking ahead, and putting their employment plans, networking and resumes in order, says Darroh. Resumes need to clearly lay out work experience, and be specific in terms of what the can-

didate has accomplished or contributed to, he advises. “You get paid for what you know, not what you don’t know.” Neither does Darroh hold much truck for ‘flowery’ resumes, which might, for example, talk about being a ‘visionary’ who does X. “No one hires visionaries. Steve Jobs or Einstein were visionaries. If you think are one, you should not be applying for this job.”

As for the more generically skilled, they better have a plan, says Gladney. He says, “These people are grown-ups. Anyone entering into this industry knows, and has to prepare for the fact that it is cyclical. That means having a savings plan, investing as much as you can in a 401K, constantly building your skills portfolio,” adds Darroh.

Right now, vessel, technical and project management are all hot skills to round out a resume. It’s better to be degreed than not, and certifications are always worth adding to a resume. For those who want to stay in the FPSO industry – it’s all about being able to bide your time until the market comes back round again, and it will, because like all other marine and especially energy-related markets, it always does. But workers can expect, and had better be prepared for, a bumpy ride, with inconsistent activity over the next five years, according to most market reports.

New Employment Paradigm

Longer term, employees and job candidates alike will find themselves working under a new employment paradigm, according to Faststream’s Peters. Taking a page from Europe, the biggest change

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Jeanne M. Grasso
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“It’s cautious, not all doom and gloom.”
– Eric Peters, managing director for the Americas, Faststream Recruitment, Ltd.

workers throughout the maritime and oil and gas industries going forward will face is the loss of full-time “permanent” employment. Instead, companies seeking to cut their labor costs are increasingly contracting out work by the project. “It doesn’t mean a lesser type of employee or that your job is any less uncertain. Whose job IS permanent?” asks Peters.

This will be the case regardless of the cost of oil per barrel. FPSO projects are plagued by cost overruns and delays. As operators attempt to claw their way back to a reasonable level of expenditures, these solutions to cutting labor costs are likely going to be permanent, even if the jobs are not.

The light at the end of the tunnel ...

FPSO builders and operators are in a bind because they need to cut costs to stay afloat today – but they know they will be desperately hunting for skilled employees once the market turns around. And it will be hard to find good people.

Shipyards are worried about when the market kicks back up and there’s an onslaught of cold stacked vessels needing maintenance and repair work. “Who the heck is going to do that? Class societies say they can, but they can’t,” exclaims Peters.



“There is no shortage of talent, but there is a shortage of very capable and highly experienced personnel.”

– Damir Tomicic, managing director, South America, Swift Worldwide Resources LLC

So not surprising is the seeming paradox of companies continuing to recruit even as they lay off by the boat load. They have to, in part to make sure they have people ready to step up when the market comes back again. A large percentage of Marine and energy workers are over 50, and many are taking retirement packages.

Companies have to plan for what they’ll lose through “natural attrition,” say the recruiters.

For all the talk about wanting to avoid another industry brain drain, employers are limited in what they can do. Their best retention tool, is communication, say the recruiters. They can’t pay people they don’t need until the market returns. And when that will happen is anyone’s guess, although several recent reports are predicting a slow, if uneven, turnaround over the next two to five years.

In the meantime, candidates who are more accommodating and open to doing contract/consulting work, who are flexible to the geographic setting and or who are willing to move on-shore and transfer their skills to a different sector, will get more phone calls, and as Peters says, find that there is still “good work to be done.”



FPSO Crystal Ocean moored at the Port of Melbourne

Photo: Marcus Wong (2010)

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Louisiana and Port Fourchon

Both Look Ahead to Better Times

Arguably the U.S. Gulf Coast's leading generator of oil & offshore employment opportunities, Louisiana and its workforce today face real challenges. South Louisiana's Port Fourchon finds itself – like everyone else – weathering the storm that low price oil has wrought.

By Susan Buchanan

In the southernmost part of Louisiana, Port Fourchon is weathering the recent drop in oil prices and waiting for crude to turn around. At the same time, port officials and tenants are hardly sitting on their hands, either. The strategic oil and gas hub services most of the state's offshore rigs and is a top employer in Lafourche and Terrebonne Parishes. Predictably, large layoffs have occurred at Fourchon and in nearby Houma, where oil companies are clustered, since late last year. But hundreds of vessels continue to enter and exit the port daily, and legions of offshore workers pass through Fourchon weekly en route to their jobs. The trick now is to find a way to retain as much of that talent during down times so that the

upswing that is sure to come; will be a little less bumpy.

The port was born when the GLPC was created by Act 222 of the Louisiana legislature in 1960. The act was signed into law by then Governor Jimmie Davis. "But it took awhile to get the port up and running," port spokeswoman Leigh Guidry said. The port's first major tenant was Martin Fuel, which opened for business in 1979. It's owned by Martin Midstream in Texas. By 1993, the port's annual revenue from leases with tenants surpassed \$2 million. Land for the Northern Expansion was purchased in 1999, and construction on that site began in 2001. And, the rest, as they say, is history.

Downturn or not, Port Fourchon supplies as much as 18 per-



2015 Port Fourchon Aerial

Credit: Greater Lafourche Port Commission



“We look for Lafourche and Terrebonne Parishes to add to oil and gas jobs in 2017. U.S. oil production probably peaked three months ago. We anticipate gradual improvement in crude oil prices, with a rise to \$55 a barrel in 2016 and \$60 in 2017.”

– Loren Scott,
Loren C. Scott & Associates, Inc.

Retired emeritus-
economics professor Loren
Scott of Louisiana State
University.



cent of the nation’s hydrocarbon operations, and its pipelines connect to fully half of the nation’s refining capacity. Separately, Port Fourchon is less than 20 miles from The Louisiana Offshore Oil Port (LOOP), an unloading and distribution center for supertankers bringing in imported oil. Significantly, LOOP uses Port Fourchon as its land base and booster pumps at Fourchon increase the flow of crude oil from the LOOP to underground salt domes in south Louisiana. Anything but a one trick pony, Port Fourchon survives today with incentives, thoughtful management practices and a diversified client base.

Tenants’ Lease Rates Slashed

“Expansion is still taking place at Port Fourchon but at a slightly slower pace,” Chett Chiasson, executive director of the Greater Lafourche Port Commission, said last month. “We’re preparing ourselves to meet demand for when the




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industry bounces back.” Earlier this year, port tenants, many of which are vessel operators, asked the facility to reduce their rents by 30 to 35 percent, retired emeritus-economics professor Loren Scott of Louisiana State University said. “Lease rates for their vessels are down, boats are tied up and they’re getting paid less,” he noted. In response, the GLPC cut basic land rentals for tenants by 20 percent, starting on April 1 and continuing to March 31, 2016. The move potentially allows tenants to hold onto key employees, at least a little longer, even as the downturn deepens

Weak oil prices have also affected some construction plans at the port. Galliano, La.-based Edison Chouest Offshore or ECO, the port’s biggest tenant, and its Lockport, La. unit Bollinger Shipyards, have slowed their expansions at the port this year, Scott said. When asked about that, ECO wouldn’t comment, however.

But as of this fall, Bollinger had yet to announce the opening of Bollinger Fourchon North, initially scheduled for this year’s second quarter. Designed as a dry dock facility, Bollinger Fourchon North will also include fabrication space and housing for subsea equipment. The existing Bollinger Fourchon South is a rig, topside repair and conversion facility on the port’s main channel.

Covered C-Ports, developed by ECO as supply centers for fluids, bulk material, cement and pipe for offshore operators, are one of Port Fourchon’s biggest advantages. The first C-Port opened in 1997. The ability to load cargoes simultaneously at covered slips reduces movement to different docks, cutting turnaround times for vessels heading to offshore rigs. ECO operates over 200 offshore vessels, most of which it built.

Waterfront Development Continues Despite Downturn

Overall, Port Fourchon is getting larger, Chiasson said. “The Port Commission itself is doing some expansion, and several companies, including Halliburton, Schlumberger, Ecoserv and Bollinger, are building out facilities,” he said. “We’re continuing to grow. All our available property is leased or is under right of first refusal – meaning if a company is interested in a property, and before someone else can lease it, they have the right to say if they want to commit or not.”

As for the port’s projects, “we continue to expand our footprint by building more bulkhead to create more waterfront,” Chiasson said, adding. “And we’re beginning our new Slip D development with a bucket-dredge project there.” Much of the port is built on landfill in wetlands. In swift growth since Hurricane Katrina in 2005, the port has added nearly 20,000 linear feet of waterfront, along with over 500 acres of land for servicing the deepwater sector.

For example, Port Fourchon embarked on a Northern Expansion more than 15 years ago and even if oil isn’t cooperating, the port hasn’t yet taken its foot off the gas. “The area includes the fully operational Slips A and B, along with Slip C—part of which is becoming operational and part of which isn’t developed or bulkheaded yet,” port spokeswoman Leigh Guidry said last month. “The expansion’s Slip D is being dredged into existence right now. Like the rest of the port’s slips, D will be a new section of leasable, waterfront property.”

Last summer at Port Fourchon, Harvey Gulf International opened the country’s first LNG marine-fueling facility. According to New Orleans-based Harvey Gulf, it bunkering site is accessible to 600 oil and gas rigs and platforms within a 40-mile radius of the port. The firm has invested in dual fuel OSVs that will operate in the Gulf. In October, the second of six LNG vessels being built for the company by Gulf Coast Shipyard Group in Mississippi was delivered.

Pain Persists for Employers – and Employees Alike

In the last twelve months, south Louisiana’s oil and gas workers have felt the sting of lower oil prices. The Houma area alone lost 800 jobs in 2015 and could lose another 2,000 in 2016, Scott said. Vessel operators and builders have terminated employees. And, that’s just the tip of the iceberg. “I don’t have layoffs at the port this year since our tenants don’t report that to us,” Chiasson said. “But considerable layoffs have occurred in our community, mostly by vessel operators and shipyards.” Company announcements are a source for what to expect this winter, he noted.

Gulf Coast-based heavyweight Bollinger filed a Worker Adjustment and Retraining Notification (or WARN notice) with the Louisiana Workforce Commission in February, saying it would shed 275 people this year. WARN notices are

Vessels at Port Fourchon





“The Port Commission itself is doing some expansion, and several companies, including Halliburton, Schlumberger, Ecoserv and Bollinger, are building out facilities. We’re continuing to grow. All our available property is leased or is under right of first refusal – meaning if a company is interested in a property, and before someone else can lease it, they have the right to say if they want to commit or not.”

– Chett Chiasson

Executive director of the Greater Lafourche Port Commission

required by companies employing at least 50 workers at a single site, or at least 100 employees overall. Separately, Houston-based Hercules Offshore, which operates jackup rigs and work boats and provides transit to Louisiana’s offshore platforms, posted a WARN notice on Sept. 22, terminating 50 workers in Fourchon and Cameron, LA. By last summer, Hercules had “cold stacked” over half of its 20 rigs in the Gulf, meaning they were shut and left largely unmanned. By late October, the company had slashed its entire staff by about 40 percent. And in October, its stock was de-listed by NASDAQ for failing to meet exchange requirements.

Elsewhere, in St. Tammany Parish just north of New Orleans, Texas-based Trinity Marine Products filed a WARN notice on Oct. 5, saying 336 workers would be cut by year’s end as its barge-fabrication yard in Madisonville, La. is shut.

Region’s Oil and Gas Jobs: a 2017 Rebound?

“We look for Lafourche and Terrebonne Parishes to add to oil and gas jobs in 2017,” Scott said. His firm is Loren C. Scott & Associates, Inc. in Baton Rouge. “U.S. oil production probably peaked three months ago,” he said in October. “We anticipate gradual improvement in crude oil prices, with a rise to \$55 a barrel in 2016 and \$60 in 2017.” Crude hovered below \$47 in late October.

While some offshore Gulf workers have lost their jobs and others have had their hours cut, they’ve been less affected overall than onshore workers, particularly oil-service staff, Scott said. Late last year and this year, service companies Schlumberger, Baker Hughes and Halliburton announced huge job cuts, including many in Louisiana.

But big oil companies remain committed to their deepwater projects in Louisiana, Scott said. In December, California-based Chevron started production at its \$7.5 billion Jack-St. Malo platform, 280 miles south of New Orleans. In January, BP said its Port Fourchon base continues to supply the company’s Atlantis,

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Dug in for the long term in Louisiana, deepwater operators need staff on their platforms. But Scott said instead of working 28 days on and 14 off, employees might now spend 14 days offshore and 14 days at home. Reinforcing that reality, the U.S. active rig count for oil and natural gas, compiled by Baker Hughes, dropped to a five-year low in October.

From its Houston headquarters, Baker Hughes by October had announced 16,000 company-wide job cuts this year, including many in Louisiana. Cuts by Texas-based Schlumberger have been even larger. Meanwhile, Baker Hughes is in the process of merging with Halliburton – which is based in Houston and Dubai and has by itself shed thousands of workers this year. Adding to the misery, mergers and acquisitions typically create economies of scale that can eliminate duplicate back office functions and headcount. Many industry analysts expect this marriage to do the same.

Bad Times – and Good

With its extensive facilities, Fourchon serves 90 percent of Louisiana’s deepwater structures and 50 percent of those in the Gulf of Mexico. Before oil prices sank in 2014, unemployment in Terrebonne and Lafourche Parishes was among the nation’s lowest, at around 3 percent, thanks mainly to the offshore industry.

In good times, Port Fourchon plays a lead role in the state’s economy. Industry at the port provided over \$2.8 billion in sales revenue in 2013 and over \$650 million in Louisiana’s household earnings, according to Loren C. Scott & Associates, Inc., in a study released in 2014. “*The Economic Impact of Port Fourchon: An Update*,” sponsored by the Greater Lafourche Port Commission, follows up on a 2008 analysis by Scott’s group.

In the firm’s latest study, Louisiana jobs directly related to Port Fourchon totaled 10,804 in 2013. That was greater than

combined, total employment in 30 other parishes in the state. What’s more, for each new job at the port, another 5.2 jobs were created elsewhere in the state to support it. Scott’s study calls that an “unusually high multiplier effect.” His firm found that one in every thirteen jobs in Lafourche and Terrebonne Parishes was directly tied to Port Fourchon’s existence. Business sales revenue generated by the port swelled from 2008 to 2013, the researchers found. The group’s latest study can be seen at www.portfourchon.com.

Fourchon: Critical Link for Emergencies and the Environment

Underscoring the importance of Louisiana’s offshore oil and gas industry, the sector pays over \$5 billion in royalty payments and fees annually to the feds, and that’s the most of any state. Port Fourchon, nonetheless, vies for grant money from Washington with other ports. Last year, the \$3.4 million Fourchon Emergency Operations Center opened, funded with nearly \$1.4 million in federal port-security grants. GLPC paid for the rest. The center’s communications and data-sharing abilities will support officials and companies responding to oil-and-gas emergencies. Over time, it is also true that Port Fourchon has endured a string of hurricanes, including *Andrew*, *Katrina* and *Gustav*, and has been impacted by Gulf oil spills. And if there’s one thing that everyone agrees on, it’s that safety can’t take a back seat to economic conditions.

Using public-private funds, GLPC has worked with federal, state and local partners to implement coastal restoration projects in and around Port Fourchon. New techniques were tried in some of these projects, making Port Fourchon a scientific proving ground. Last year, the Coalition to Restore Coastal Louisiana recognized GLPC with a Coastal Stewardship award for its efforts to defend the shoreline.

Hence, there is more to Louisiana – and Port Fourchon – than just oil. The Gulf Coast state sets out to prove that reality every day.

Ongoing cargo operations in support of offshore oil & gas industry at Port Fourchon.



Port of New Orleans Supports **160,500 jobs**

Revenue at the deep-draft Port of New Orleans has swelled 60 percent since Katrina closed the facility for awhile in 2005. Revenue expanded from \$38.9 million in FY2006 to \$62.4 million in FY2015. The port managed to open less than a month after Katrina struck in August 2005, and by the start of 2006 its activity had returned to pre-storm levels. Heavily trafficked commodities that keep the port humming include imported steel, natural rubber and coffee; nonferrous metals; exported chemicals; and project cargo and heavy-lift cargo, port spokesman Matt Gresham said in October. The port's fastest-growing activities involve containerized cargo, along with packaging and transloading of exports, especially plastics and poultry. Bulk shipments can be reloaded into containers.

The port supports 160,500 job locally and statewide. And of that, its rapidly growing, cruise business generates 8,129 jobs. The port has allocated more than \$100 million to capital improvements since 2012, and hopes to expand its Napoleon Avenue Container Terminal to an annual capacity of 1.6 million TEUs or twenty-foot equivalent-unit containers, from 490,526 TEUs in 2014. Chiquita, Maersk, Hapag-Lloyd and others operate out of the Napoleon terminal.

"In the last year, refrigerated cargoes, particularly bananas and poultry, have shown significant growth," Gresham said. Chiquita Brands International moved its shipping operations back to New Orleans in October 2014 after 40 years in Gulfport, Miss. In 2013, the port opened the Gulf Gateway Terminal, receiving crude oil by rail. "GGT brought new maritime and rail activity to the Elaine Street Wharf, which had been vacant for a long time," Gresham said. Significantly, at the center of the bustling Lower Mississippi River, the port is connected to inland markets and Canada by 14,500 miles of waterways, six class-1 railroads and an interstate highway system. Its exports and imports are sustained by a network of ocean carrier services.

Images: Tracie Morris Schaefer,
courtesy Port of New Orleans

Corporate Charity on the Waterfront

For all the right reasons.

By Joseph Keefe



Waterborne commerce today in large part operates beyond all but vaguest awareness by the general public that it exists at all. Here in the United States, as much as 98 percent of all consumer goods and raw materials at some point get from point A to point B, on the water. Nevertheless, quite often, the first and only time the average person hears about global shipping and maritime concerns is when there is bad news to tell.

Maybe that involves an oil spill or a collision, perhaps an accident at sea, or some other such calamity. Or, it could involve the frequently invoked mantra of how much global shipping is responsible for global warming and a disproportionate share of stack emissions. Beyond the bad news, the greater commercial waterfront also does an arguably poor job of telling its own story.

The value of the maritime piece of the world's intermodal equation, in all the obvious places, can't be understated. Away from the daily logistics battle, the collective waterfront also provides value – sometimes in places where we least expect it. Nowhere is that more true than the many examples of corporate philanthropy and charitable efforts that emanate from the maritime professionals who regularly donate time, talent and treasure to those less fortunate. In this edition of *Maritime Professional*, we highlight – yes, for all the right reasons – just a few of those many acts of corporate kindness.

NAMEPA

“Save Our Seas” is the mission of the North American Marine Environment Protection Association (NAMEPA) which is an independent, marine industry-led entity that engages

industry, regulators, environmental groups, educators and the public by promoting sound environmental practices. NAMEPA is a non-profit organization committed to preserving the marine environment through educating seafarers, students and the public about the need and strategies for protecting global ocean resources.

NAMEPA's education and outreach programs provide STEM-based learning about the marine environment and the maritime industry to Boys and Girls Clubs in underserved and port communities. Over the past year alone, NAMEPA has held 15 hands-on workshops with Boys and Girls Clubs in the Connecticut cities of Bridgeport, Stamford, Southport, and Ridgefield; in Chicago, IL; and in Half Moon Bay, CA. These workshops teach the children about the marine environment, the negative effects of marine debris, and what they can do to mitigate marine debris in their communities. NAMEPA also teaches children about the maritime industry and the impact it makes in their everyday lives. In addition to the workshops, the organization hosted two beach cleanups for the Boys & Girls Club. The beach cleanups reinforce the lessons learned in the workshops and allow the children to see firsthand the positive impact they can make on the marine environment. And, NAMEPA Public education programs have taken place at countless venues, nationwide. NAMEPA's ultimate goal is to “Save Our Seas” by teaching an entire generation to care for and protect the marine environment.

MARITIME PROFESSIONAL TRAINING (MPT)

Founded in 1983, Florida-based Maritime Professional Training (MPT) is one the largest private maritime training



Saul Ste. Marie Community Center
The Coast Guard Foundation



Lisa Morley,
Maritime Professional
Training (MPT)

school in the United States and currently serves more than 10,000 students annually, providing training for mariners pursuing careers in both the commercial and yachting segments of the maritime industry. Under the direction of the Morley family for two generations, MPT's Fort Lauderdale campus hosts over 61,000 square feet of classrooms, deck, engineering departments and dynamic positioning training labs.

MPT's Lisa Morley sums up the firm's corporate giving strategy nicely when she says, "One word can really best describe the nature of our support – Gratitude. We are grateful for the blessings we as a family and a company have and we feel a strong obligation to give back to our community in as many ways as possible. As a family owned business, we have instilled this ideology in every aspect of our lives – personal and professional. Our children and grandchildren are being raised to know and understand that a life lived for others is a life worthwhile."

MPT actively seeks out partnerships with local and national charitable organizations like the Boys and Girls Clubs and the recently founded Hawsepiper Foundation, which allows MPT to further efforts to educate the next generation society about the marine environment as well as opportunities within the maritime sector. As an example, MPT provides scholarships for training, and offers hands on opportunities to incite excitement about industry and the oceans. Summer camp programs in partnership with the Marine Industry Association of South Florida and the Marine Industry Cares Foundation are another example of the benevolent reach of this family-run firm.

Separately, MPT's involvement in charities like the American Cancer Society and other organizations that assist women

battling breast cancer stemmed from personal experience with cancer, and eventually, the need to help find a cure and provide resources for those battling this terrible disease.

It is MPT's involvement with the Boys and Girls Clubs that perhaps tells the full measure of what the community outreach means to MPT and its employees. Presented with the opportunity to sponsor just one child for an entire year of club services and after school snacks, the Morley Family Foundation instead committed to a \$50,000 donation. Ultimately, this led to a new scholarship program. This year, the first two scholarship recipients from the Boys and Girls Club will embark on their journey towards a great maritime career. For its part, MPT will cover ALL associated costs, including USCG licensing fees, physicals, books, tuition, etc. Morley sums it all up by saying simply, "I love being a part of a family and a company that understands that in order to make a difference, each of us has to be the change that the world needs."

THE SHEARER GROUP

The Shearer Group, Inc. (TSGI) is best known as designer of inland towboats and barges, with a rich history of providing naval architecture and marine engineering services to the marine industry with a focus on the inland sector. Inland barges built to their designs number in the thousands, along with a myriad of towboat, dry dock and other specialty designs. A less obvious focus of TSGI is its support of the non-profit organization, Living Lands & Waters (LL&W), based out of East Moline, Illinois. TSGI recently donated the design and engineering effort of a new barge for LL&W in their initiative to improve the environment. The barge will be utilized to pick



Left to Right: Michael Eckart, Project Development Manager at Sherwin Williams, Chad Pregracke, President of LL&W, Jim Yager, President of Yager Marine, and Ed Shearer, Principal Naval Architect at The Shearer Group, Inc.

The Shearer Group

up garbage from the Ohio River in a more efficient way. TSGI heard about Living Lands & Waters from several of its clients and when approached by Yager Marine to work on the project they jumped at the opportunity.

The TSGI designed 150' x 32' x 5' crane barge is equipped with a stern ramp to accommodate a small towboat, bulwarks to contain deck loads of trash, handrails for personal protection, and other appurtenances. A John Deere Model 210G hydraulic crawler crane rigged for grab work is also installed and the uniquely designed coamings along either side of the barge will help hold the trash being collected.

Living Lands & Waters (LL&W) is a non-profit environmental organization with a mission to aid in the protection, preservation and restoration of the natural environment of the nation's major rivers and their watersheds. LL&W has grown to be the only "industrial strength" river cleanup organization like it in the world. LL&W's crew hosts river cleanups, watershed conservation initiatives, workshops, tree plantings, and other key conservation efforts.

The philanthropy at TSGI and its sister company Bristol Harbor Group, Inc., doesn't end there. This year, they also donated older laptop computers that were no longer being used to a village in Guatemala through a church commitment that principal naval architect, Ed Shearer and his wife Gayle, participate in every year. Ed adds, "TSGI plans to continue to donate to non-profit organizations in the future. We enjoy being able to give back to the community."

T&T SALVAGE

Earlier this year, when a small feeder container vessel ran aground off the coast of Papua New Guinea, a large part of

its cargo consisted of 32 containers of mosquito nets owned by international charitable organization the Rotary Club through their subsidiary Rotarians Against Malaria, a not-for-profit Non-Governmental Organization (NGO) engaged in a program aimed at eliminating Malaria in Papua New Guinea. Each year, more than 1.2 million people in Papua New Guinea are struck down by Malaria.

Through the use of Long Lasting Insecticidal Mosquito Nets (LLIN's), delivered free of charge, every household in Papua

New Guinea is protected against the scourge of mosquito-borne malaria.

The nets aboard the grounded vessel were not insured and the charity simply did not have the funds to pay a salvage award. T&T Salvage, who undertook the salvage of the vessel and her cargo under the internationally recognized Lloyds Form of Salvage Agreement (LOF), agreed to release the cargo without salvage security. T&T Salvage, together with subcontractors Pacific Towing PNG, will pay this cargo's share of any salvage award or settlement out of their own pocket, substantially reducing any profit they will make under the LOF.

Mauricio Garrido, President of T&T Salvage, said "what better 'award' can we receive than the opportunity to help kids in real need. It is not always about the money." Ron Seddon, chairman of Rotarians Against Malaria added, "The decision that T&T Salvage has made will assist us in our endeavors to eradicate malaria from PNG and for this we sincerely thank them for their generosity - Rotarians Against Malaria have decided to award Rotary's highest recognition to T&T Salvage in the form of a Paul Harris Corporate Award."

TENNECO

Tenneco is one of the world's largest designers, manufacturers and marketers of clean air products and systems, including emission control systems for gasoline and diesel-powered engines. The company entered the marine market in 2012 with diesel aftertreatment systems designed to meet the new U.S. EPA Tier 4 and IMO III regulations that require significantly lower NOx emissions.

With more than 29,000 employees working at more than 100 locations worldwide, the primary focus of the Tenneco's

charitable giving is to help build strong communities by promoting health, education and welfare where the company operates and its employees live. Tenneco's many charitable efforts include The United Way, Tenneco's primary partner for charitable giving, as well as the Detroit-based Focus: HOPE, a non-profit organization dedicated to career training and community support. Beyond this, Tenneco is also a long-time supporter of the Boys and Girls Clubs of America.

In the marine industry, the company has provided financial support to the Great Lakes Maritime Academy and the Texas A&M Maritime Academy at Galveston to help validate new emissions control products for marine applications. The partnerships started with the mutual need to prepare for new environmental regulations, as well as the training and technology needed to ensure compliance.

In August of 2015, Tenneco presented Texas A&M University at Galveston Maritime Academy with a \$5,000 scholarship to support marine engineering students. The Academy had partnered with the company to test a new emissions control system on the Academy's training vessel, the General Rudder. The entire experience was very positive for Tenneco and the Academy. In addition to funding scholarships for five marine engineering students, Tenneco provided the Academy with training materials to help all students learn more about critical environmental technologies they are likely to encounter in their future maritime careers.

"One of the primary objectives of this program is to support education and promote clean air technology," said Timothy Jackson, chief technology officer, Tenneco. "We're pleased to provide scholarships to deserving midshipmen who demonstrate leadership in the field of marine engineering and who have built a greater understanding of clean air technologies. The engineering midshipmen and crew on board with our SCR system provided us with valuable insight, while validating the ease of use for adoption in the marine industry."

THE COAST GUARD FOUNDATION

The Coast Guard Foundation is a 501c (3) non-profit organization. Up and running for more than 45 years, its programs focus on the wellbeing, education and morale of the men and women of the U.S. Coast Guard and their families. In the last ten years alone, the Coast Guard Foundation has provided more than \$31 million in support for Coast Guard men and women and their families. Bradley Sisley is the Chief Operating Officer and Senior Vice President at the foundation. In November, he told MarPro, "We don't fund operational programs. For instance, in 2014, we provided funding for more than 300 welfare and morale projects that benefited literally thousands of active duty men and women and their families. It can run the gamut of workout equipment all the way up to building swimming pools or playgrounds for the family housing units and things like that."

Started originally as the Coast Guard Academy Foundation, in 1986 it expanded its mission to include supporting the Coast Guard as an entire organization. Sisley explains, "And now, the vast majority of our support goes to enlisted men and women and their families. Education is a huge component of what we do. Last year alone, we funded and assisted more than 1300 scholarships. We also gave away over \$400,000 for college scholarships for children of enlisted men and women – some of which are the first person in their family to ever go to college."

Fortunately, outside funding has come up over 30 percent in the last three years. Entirely privately funded from corporations and individuals, the foundation receives no government funding. About \$7 million annually comes in to support the mission of CGF. Sisley says that one fund in particular – the Fallen Heroes Scholarship Fund – benefits children of parents who die in the line of duty. "This is tremendously important. We'll pay whatever is needed so they can graduate from college debt free," said Sisley.

This year, the CGF announced that it will offer scholarships for the education of qualifying spouses of Coast Guard members. The Coast Guard Foundation's Spouse Education Grant program was established in 2010 as a way to support the higher education goals of husbands and wives of our enlisted Coast Guard members. "We're proud to announce that funds in the amount of \$30,000 have been made available due to the generosity of Coast Guard Foundation donors," said Anne Brengle, president, Coast Guard Foundation. "These donors have made gifts in memory of Lisa Cook Reed, a Coast Guard Foundation staff member who passed away in 2013. Lisa worked hard to establish the first spouse grants during her time at the Foundation. We are honored to give these awards in her name."

Awarded on a first-come, first-served basis, the Coast Guard Foundation Spouse Education Grant is intended to assist non-military spouses pursuing professional development courses, licensing courses, certificates and certifications, as well as college and graduate level degrees from nationally or regionally accredited institutions.

The scholarships are but one part of the more than 300 CGF morale and welfare programs, but they exemplify the best of what the CGF does every day, thanks to private and corporate sponsorships – much of which comes from the maritime industry itself.

CHARITY AND THE BOTTOM LINE

No one can deny that the maritime industry is going through some difficult times at the moment, but that doesn't stop corporations from understanding that people everywhere will always need help. And, that's why corporate charity and philanthropy is so important. Doing the right thing for the right reasons, in good times and bad, is always good business. It's also the right thing to do.



TRAINING

Great Lakes Maritime Academy



California State University Maritime Academy



Training Tomorrow's Maritime Professionals — Today

If there is just one thing that maritime stakeholders everywhere agree on, then that topic might just be the need to produce the next generation of mariners, in adequate numbers and in a timely manner to the global waterfront. On the other hand, the matter of how best to deliver that training, in what setting and with what curriculum, is very often a bone of contention. Beyond this, the definition of what we call a “maritime professional” has certainly changed over time.

These discussions include the recent development (and success) of so-called domestic apprentice programs, and of course, the difference between the time-tested American system of maritime academies and that of the rest of the world, where a more vocational approach has been in place for many years, as well.

In this edition of *MarPro*, we take a look at the traditional American system of training officers; the (6) state and (1) federal academies which have, for many decades, delivered the lion’s share of licensed mariners to the nation’s blue water, deep draft fleets. Over time, the schools have collectively evolved to introduce different and expanded curriculum, in part responding to market pressures and the changes in technology, business trends and many other variables. All of that adds up to myriad opportunities for developing tomorrow’s maritime professional; on and off the water.

Massachusetts Maritime Academy



California State University Maritime Academy

California State University Maritime Academy (Cal Maritime) is a unique and specialized campus of the California State University system and the only U.S. maritime academy on the Pacific Coast. Cal Maritime now serves as the U.S. Maritime Administration's regional academy for California, Hawaii, Alaska, Washington, and Oregon. Cal Maritime's programs focus on intellectual learning, applied technology, leadership development, and global awareness. All Cal Maritime students participate in training cruises aboard the 500-foot Training Ship Golden Bear or other international educational experiences relevant to their respective majors. Leadership training lies at the center of the students' experience at Cal Maritime as members of the Corps of Cadets and through the Edwards Leadership Development Program, a co-curricular program built on a maritime model embracing the history, tradition and importance of the seafaring chain of command, while promoting active participation in modern team management practices. In addition to six majors and online master's degree program, Cal Maritime also offers a number of extended learning programs, continuing education opportunities, and – through the Maritime Safety and Security Center – specialized, customizable training for transportation-related industries and first responders. Cal Maritime graduates enjoy high placement rates into lucrative careers, and recent data from the U.S. Department of Education show that CMA alumni lead the state in average earnings ten years after graduation.

California State University Maritime Academy
200 Maritime Academy Drive,
Vallejo, CA 94590
Telephone: 707.654.1000
Website: www.csum.edu
Total Undergraduate Enrollment: 1,075
School Opened: 1929

Admissions Director Contact Information:
Marc McGee
mmcgee@csum.edu
707.654.1330





Great Lakes Maritime Academy
 1701 E. Front St., Traverse City, Michigan
Telephone: 231.995.1200 or 877.824.SHIP
E-Mail: maritime@nmc.edu
Website: www.nmc.edu/maritime
Enrollment: 240 Cadets
School Opened: 1969

Admissions Director Contact Information:
 John Berck
 231.995.1213
Director of Admissions & Enrollment Management:
 jberck@nmc.edu

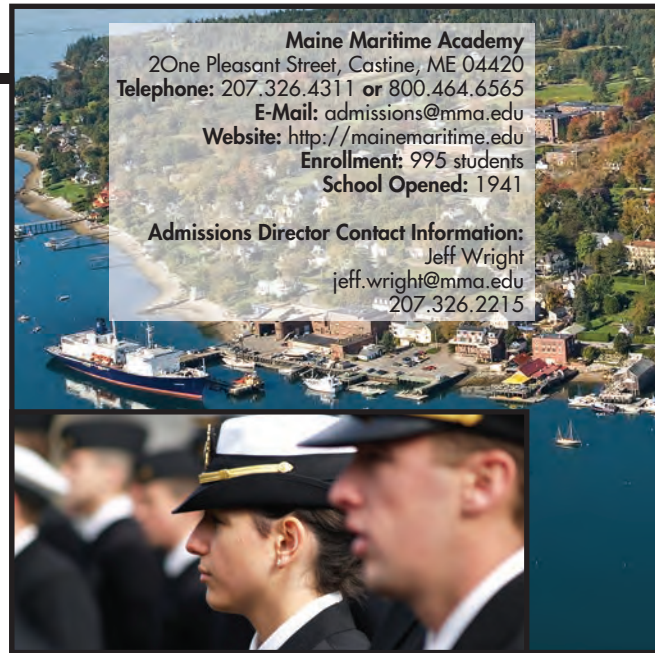
Great Lakes Maritime Academy

Great Lakes Maritime Academy is Michigan's State Maritime College. The Academy was formed in 1969 as a division of Northwestern Michigan College in Traverse City, Michigan. Graduates earn a Bachelors of Science Degree in Maritime Technology (BSMT) and license as First Class Great Lakes Pilot/Third Mate oceans Unlimited Tonnage (Deck) or Third Assistant Engineer Steam/Diesel Unlimited Horsepower (Engineering). These credentials allow graduates to sail both the Great Lakes and oceans as they enter their career as a Merchant Marine Officer. Maritime cadets have a unique college experience with three semesters sea during their training at the Academy. This exposure the maritime industry is essential in preparing graduates for the position of an entry level officer aboard U.S Flag vessels. In 2002, the current Training Ship "State of Michigan" was provided by the United States Maritime Administration (MARAD). The Training Ship has many roles in the delivery of the maritime curriculum. Cadets complete their first "Sea Project" aboard the State of Michigan. The ship is also utilized daily as a classroom/lab and source of In-Port/Skilled Training/Internship days required for licensing. Cadets complete their other two required sea projects aboard commercial vessels of the Great Lakes and oceans-- a total of 360 sea days. The Academy's admissions process is competitive and limited to 60 incoming cadets per year. In addition to recent High School graduates, incoming cadets represent college graduates (30%), veterans (32%) and college transfer students (40%).

Maine Maritime Academy

Maine Maritime Academy is a public, co-educational college located in Castine, Maine with approximately 950 students in 18 degree programs of study in engineering, management, science, and transportation. MMA programs equip students with the practical skills, knowledge, and training to launch successful careers. MMA students benefit from hands-on education, international sea-time aboard the Training Ship State of Maine or the Schooner Bowdoin, cadet shipping aboard commercial vessels, and cooperative education assignments. Graduates become world-class mariners and engineers, supply chain managers, logistics professionals, and scientists here in Maine and beyond.

Maine Maritime Academy alumni number approximately 6,500 and work all over the world. The success of MMA alumni has resulted in a worldwide reputation for excellence and reliability in maritime, business and scientific fields. The alumni network connects MMA graduates with career opportunities in all of the industries and organizations they serve. The Academy was ranked the number 1 Public College in America on Money magazine's Best Colleges list released in August, 2014 and again in 2015.



Maine Maritime Academy
 2One Pleasant Street, Castine, ME 04420
Telephone: 207.326.4311 or 800.464.6565
E-Mail: admissions@mma.edu
Website: http://mainemaritime.edu
Enrollment: 995 students
School Opened: 1941

Admissions Director Contact Information:
 Jeff Wright
 jeff.wright@mma.edu
 207.326.2215

Maine Maritime Academy Majors by the numbers ...

(Graduate) Int'l Logistics Mgmt: 37	Marine Systems Engineering (4 year): 9	Deck Majors (number): 276
Total Degree Programs: 18	Power Engineering Operations: 38	Engine Majors (number): 444
Int'l Business & Logistics: 110	Power Engineering Technology: 90	Typical Class Size: 20-25
Marine Biology & Marine Science: 28	(Associate): Small Craft Design/Systems: 56	PCT Employed in Major (*):90% +

(*) six months after graduation

Massachusetts Maritime Academy

Massachusetts Maritime Academy
 101 Academy Drive, Buzzards Bay, MA 02532
Telephone: (800) 544-3411
E-Mail: admissions@maritime.edu
Website: www.maritime.edu
School Opened: 1891
Enrollment (number): 1650

Admissions Director Contact Information:
 Elizabeth Stevenson, VP Enrollment
 Liz Daly, Director of Admissions
 www.maritime.edu
 800.544.3411



Massachusetts Maritime Academy is your college for: Emergency Management, Energy Systems Engineering, Facilities Engineering, International Maritime Business, Marine Engineering, Marine Transportation, and Marine Safety & Environmental Protection. The school also offers graduate programs in Emergency Management and Facilities Management. Massachusetts Maritime Academy is a fully accredited, four year, co-educational state university offering Bachelor and Master of Science degrees that are highly regarded in the worldwide maritime industry and beyond. Located on Cape Cod, at the mouth of the scenic Cape Cod Canal, Massachusetts Maritime Academy is the ideal college to pursue your love for the ocean, your concern for the environment, your interest in math and science, and your thirst for adventure. The campus is equipped with state-of-the-art technology to train the next generation of industry leaders. The Academy's rigorous academics and hands-on approach to building leadership and professional skills fully prepare students for successful careers.

State University of New York (SUNY) Maritime College

State University of New York (SUNY) Maritime College
 6 Pennyfield Ave, Thoggs Neck, NY 10465
Telephone: 718.409.7221 (Admissions)
E-Mail: abernstein@sunymaritime.edu
Website: www.sunymaritime.edu
Enrollment: 1,862
School Opened: 1864

Admissions Director Contact Information:
 Dr. Irene R. Delgado
 718.409.7221



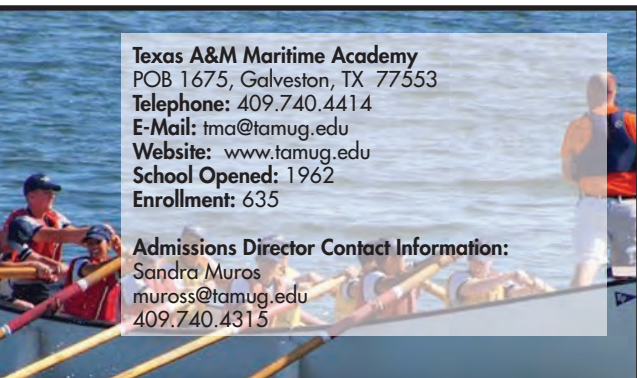
SUNY Maritime College educates leaders to excel in the global maritime environment. With almost 100 percent job placement after three month of graduation, the college is highly regarded as the leader in developing graduates who are prepared for careers in the transportation, energy, and engineering sectors. Student success after graduation is a result of the college's focus on applied learning throughout the curricula. Undergraduate and graduate degree programs are offered in Engineering (Marine, Mechanical, Electrical, Facilities, Naval Architecture); Marine Transportation/Operations; Maritime Studies; Marine Environmental Science; International Transportation and Trade. The school also offers a two-year associates degree in Marine Small Vessel Operations. Master's degrees include International Transportation Management (classroom or online) or Maritime and Naval Studies (online). Undergraduate and graduate students can elect programs that lead to a U.S. Coast Guard Merchant Mariner License upon graduation, which by U.S. law requires participation in the Regiment of Cadets. Students may also pursue a degree program as a non-license civilian student. For students in the Regiment of Cadets who pursue a U.S. Coast Guard License, travel on the College's 565-foot Training Ship Empire State VI is an essential component of the Maritime experience. Each summer, Cadets travel across the world, learning about ship operations and the maritime industry while gaining exposure to international cultures. Maritime College offers 18 varsity level athletic teams and students have the opportunity to participate and exercise leadership in intramurals and numerous club organizations, campus events, community service, and ROTC. SUNY Maritime has approximately 150 faculty who are recognized and called upon for their expertise in maritime transportation, engineering, and global business.

Texas A&M Maritime Academy

Texas A&M Maritime Academy
 POB 1675, Galveston, TX 77553
Telephone: 409.740.4414
E-Mail: tma@tamug.edu
Website: www.tamug.edu
School Opened: 1962
Enrollment: 635

Admissions Director Contact Information:
 Sandra Muros
 muros@tamug.edu
 409.740.4315

The Texas A&M Maritime Academy (TAMMA) is a prestigious, highly specialized maritime training program that is embedded within Texas A&M University at Galveston (TAMUG), a branch of Texas A&M University (TAMU) at College Station, Texas. The Corps provides Midshipmen a regimented environment that is designed to develop leadership skills required to be an officer in the Naval or Merchant Marine services. Leadership development and experience is the ultimate goal of the Corps of Midshipmen. The mission of the TAMMA is to provide the maritime industries of the State of Texas and the United States with highly trained and professional licensed Merchant Marine Officers (deck/engine) to serve on ocean-going and inland waterways vessels. The Academy includes Midshipmen who are in the U. S. Coast Guard licensing program that leads to a Merchant Marine Officer's unlimited license as a deck or engineering Officer, the Naval Reserve Officer Training Corps (NROTC), and the Drill and Ceremony Midshipmen who desire the leadership training but not a License in the Merchant Marine or Commission in the Navy. Additionally, for those Midshipmen who volunteer and meet the qualifications, license option Midshipmen can join the Strategic Sealift Officers (SSO) Program administered through the Naval Science Department/NROTC program, which provides the opportunity for license option Midshipmen to receive a commission as an Ensign and serve in the Naval Reserve.



Texas A&M Maritime Academy Majors by the Numbers ...

Deck Majors: 446	NROTC: 71	Freshman Class Enrollment: 137 (maritime)
Engine Majors: 97	Drill & Ceremony Cadets: 21	Percentage Employed in Major: 97%

(*) six months after graduation

The United States Merchant Marine Academy

The U. S. Merchant Marine Academy (USMMA) at Kings Point, NY is a federal service academy with the mission to educate and graduate licensed Merchant Marine Officers of exemplary character who serve America's marine transportation and defense needs in peace and war. The Academy's four-year program includes Sea Year, during which cadets acquire hands-on experience working aboard commercial and military vessels sailing around the world. Due to the Academy's unique mission, its graduates have civilian and military career choices that are unmatched by any other federal or maritime academy. Kings Point graduates earn (1) a Bachelor of Science degree, (2) an unlimited U.S. Coast Guard license (Deck or Engine), as well as (3) an officer's commission in one of the U.S. Armed Forces. Graduates are obligated to serve as a licensed officer in the U.S. Merchant Marine for five years, and as a commissioned officer in one of the U.S. Armed Forces reserves for six years following graduation. Alternatively, graduating midshipmen can apply for an active duty commission in any branch of the U.S Armed Forces or the National Oceanic and Atmospheric Administration (NOAA) Corps, and fulfill their service obligation by serving five years in any one of these branches. USMMA graduates are highly sought after as officers in the military and the U.S. Merchant Marine. Further, according to recent reports from the Department of Education and others, Kings Point graduates earn some of the highest salaries of college graduates in the United States.

The United States Merchant Marine Academy
 300 Steamboat Rd., Kings Point, NY 11024
Telephone: 516-726-5646
E-Mail: admissions@usmma.edu or
 externalaffairs@usmma.edu
Website: www.usmma.edu
School Opened: 1943
Enrollment: 906

Admissions Director Contact Information:
 Lt Cmdr. Keith Watson, USMS
 WatsonK@USMMA.EDU
 516.726.5642

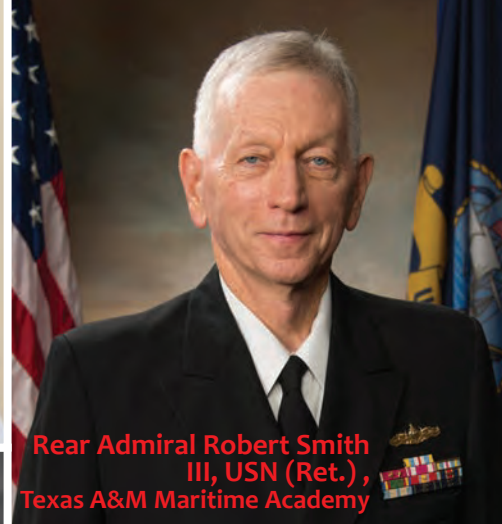




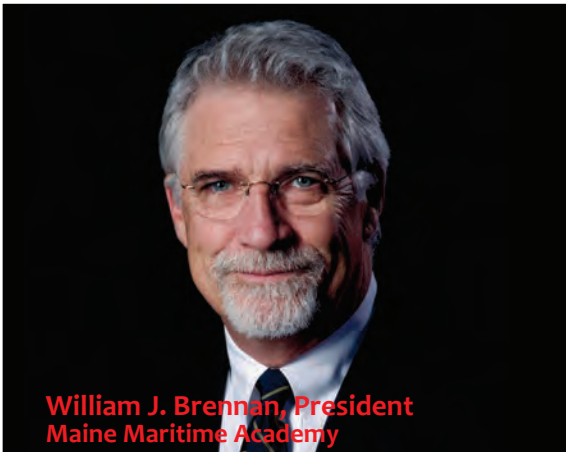
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Safety for the Workboat and OSV Sectors –

Maritime software developer Helm Operations recently unveiled a new report on workboat and OSV safety. The 118-page effort is arguably contains one of the most comprehensive analyses of that important subject ever published. Beyond this, the report showed that as many as 50% of crews working on offshore support vessels are willing to compromise safety rather than say ‘no’ to clients or senior management. At the same time, almost 80% believe commercial pressures could influence the safety of their working practices. Sobering statistics, indeed.

The independent report, entitled *The Impact of Crew Engagement and Organizational Culture on Maritime*

Safety in the Workboats and OSV Sectors, summarizes six months of research by Fathom Maritime Intelligence and primary data collection and analysis by Southampton Solent University. Drawing upon a wealth of Port State Control detention records, feedback from 50 individuals from offshore companies, incident case studies, and input from leaders in best practice, the voluminous effort deserves close study by all maritime professionals. In a nutshell, the research study attempts to determine how crew engagement and organizational culture impact maritime safety on workboats and offshore support vessels (OSVs). The findings, as shown below, are best, alarming:

Without a doubt, the work carried out by workboats is inherently risky, whereas OSVs often work in extreme and unpredictable weather conditions with heavy moving equipment on open decks. Nevertheless, until now, most safety-related research has focused solely on the deep-sea maritime industry. Nevertheless, OSV’s and workboats actually got high marks when compared to their blue water cousins. For example, general cargo vessels proved to be not only the vessel category the most involved in occurrences, but also the vessel category with the highest rate of casualties and experiencing the greatest number of occurrences according to severity. In contrast, tugs and OSVs were involved in comparatively few occurrences and recorded far less fatalities and injuries, suggesting that their safety performance may be superior to that of other vessel categories. During 2014, general cargo/multi-purpose vessels, bulk carriers and container ships recorded most deficiencies and detentions and OSVs and tugs amongst the least. The vast majority of inspected workboats and OSVs registered very few deficiencies and only a very low percentage of both vessel types were detained. That said, the authors note, those deficiencies and detentions recorded were mostly due to factors related to safety culture and crew wellbeing, hence it was concluded that better safety management procedures, improved safety culture and ensuring crew wellbeing could contribute to lowering workboat and OSV deficiencies and detentions even further.

The research study concluded that, like in other industries, crew engagement and organizational safety culture impact heavily on the safety performance on workboats and OSVs. Factors that impact safety culture include communication; empowerment of

OSV & Workboat Safety ... By the Numbers

- 8 – pct of respondents believing that administrative bureaucracy is a deterrent to reporting accidents.
- 12 – pct of respondents finding it difficult to make themselves understood in their work place.
- 12 – pct of respondents who did not think that appropriate action was taken after an accident.
- 30 – pct of respondents feeling that they were sometimes made to carry out tasks that were not safe.
- 34 – pct of respondents who said companies needed to offer additional training.
- 40 – pct of respondents saying they had had an accident while working offshore.
- 44 – pct of respondents saying they had left a job due to bad safety culture and or accident.
- 50 – pct of respondents feeling that more could be done to help promote safety standards.
- 50 – pct of respondents saying safety was compromised by fear of saying ‘no’ to client/superior officer.
- 50 – pct of respondents experiencing specific challenges relating to safety culture while working offshore.
- 54 – pct of respondents needing special qualifications to enable work in their geographical region.
- 64 – pct of respondents believing that some accidents go unreported.
- 68 – pct of respondents reporting differences safety enforcement in different cultural regions.
- 78 – pct of respondents believing that commercial pressure could influence the safety in the workplace.
- 80 – pct of respondents happy with the current safety procedures on their vessel.
- 84 – pct of respondents saying they were backed by management if they reported an accident.
- 86 – pct of respondents believing that safety was enforced enough by their managers.
- 92 – pct of respondents empowered enough to be able to stop the job due to safety issues.
- 100 – pct of respondents who felt they had adequate training to do their job safely.

by the numbers



The full version of the OSV Safety report is available to download at: www.helmsolutions.com

FIGURE 15: INSPECTED VESSELS WITH DEFICIENCIES, BY VESSEL TYPE, TOKYO MOU, 2014

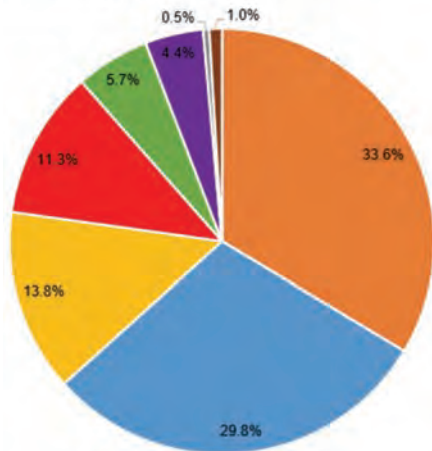
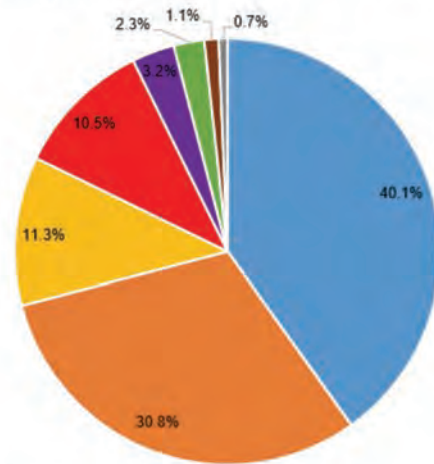


FIGURE 16: DETAINED VESSELS, BY VESSEL TYPE, TOKYO MOU, 2014

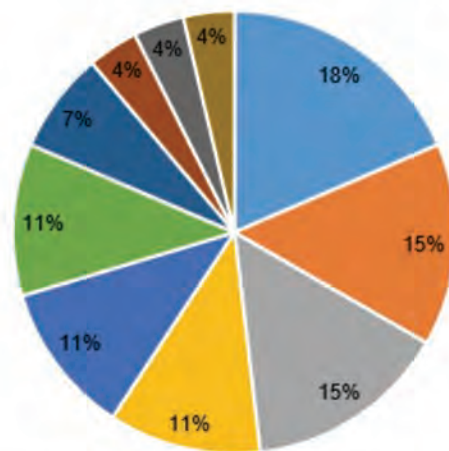


- General cargo/multipurpose
- Bulk carrier
- Container
- Other
- Oil tanker
- Chemical tanker
- Tug
- Offshore supply

employees; feedback systems; mutual trust; problem identification; promotion of safety; responsiveness; safety awareness. This set of eight factors was used to develop a framework for assessing the safety culture of a shipping company. It was also suggested that companies focus on the set of eight safety factors identified in the literature review.

Interestingly, and based on the OSV survey findings, specific safety concerns still exist in the Gulf of Mexico as this was an area that was said to have “a good and bad reputation” towards implementing safety culture. Due to its geographical location, the region is commonly split into two sections; the American section and the Mexican section. One respondent has noted that the “Gulf of Mexico has very high safety standards compared to most other areas of the world,” while still another commented that it was easy to replace crew in the Gulf of Mexico if they don’t comply with safety standards. Safety standards within this region, say the authors, would benefit from further research.

FIGURE 21: REASONS FOR WORKBOAT DETENTIONS IN 2014, PARIS AND TOKYO MOU



- Fire safety
- Pollution prevention
- Life saving appliances
- Ship Certificates
- ISM
- Safety of Navigation
- Emergency systems
- Labour conditions
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- Structural Conditions

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