From the Bridge

The Newsletter of the Company of Master Mariners of Canada

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The Company of Master Mariners of Canada is a professional association for those qualified to command. It was established to encourage and maintain high and honourable standards within the nautical profession, further the efficiency of the Sea Service, and uphold the status, dignity and prestige of Master Mariners.

Captain G.O. Baugh Memorial Fund Scholarship: In 2013 two $1,000 Scholarships were offered to students at nautical schools across the country. The response, and the calibre of the applicants, was great. Thirteen students applied, four from Memorial University in St. Johns NL, four from the Nova Scotia Community College in Port Hawkesbury, Nova Scotia, one from Georgian College in Owen Sound, Ontario and four from the British Columbia Institute of Technology Marine Campus.

The trustees deliberated over the applications and agreed that the successful applicants were Phoebe Gilday and Jordi Rickaby, both Second Year Nautical Science Cadets at the Marine Campus of BCIT in North Vancouver.

The awards were presented to the students at the Marine Campus on December 3rd. Making the presentations were Mrs. Thelma Bremner, widow of Captain David Bremner who had for many years been a Trustee of the Captain Baugh Memorial Fund, and Captain Don Rose, Master of the Vancouver Division.

Phoebe Gilday, Mrs. Thelma Bremner, Capt. Don Rose, Jordi Rickaby

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The Dawn of a New Beginning: A Cadet's Experience in Drydock: As a Deck Cadet you are a very diverse rank aboard your vessel. You are a trainee officer, part deck crew, part cleaner, part office clerk. These roles are especially exercised aboard a ship bound for drydock. This is an exceptional time for learning and practical experience. This can also be a dangerous time aboard. Even with stringent company safety procedures and precautions, this inherent danger is magnified with heavy machinery, entrance into enclosed spaces, and hard hours. Even with the pressure and anticipation of drydock, it is important as a worker and especially as a Cadet to remain vigilant and fully aware of your surroundings and the task at hand at all times.

Various preparations such as crude oil wash, filling of seawater in slop tanks, purging and pumping clean air into tanks begin prior to departure of the previous port. During this extremely hectic period, the Chief Officer will be very busy and not in a disposition to entertain questions, however, it is essential to remain attentive and helpful as these practices are a rare opportunity, complex and shouldn't be taken for granted.

At last, the drydock: With all tanks clean and gas free the ship is deemed fit for drydock. The luminosity of the underwater dock lights grow stronger and stronger as the dock begins to surface and finally arises to take the weight of the ship. A ship once afloat at sea, now perched upon wooden blocks. Work begins immediately with the removal of the anchor and anchor chain as well as the ballast plugs situated under the ship. The whirl of power washers and sirens of leisure moving man-lifts fill the air. The smell of steel just recently submerged under the sea fills the nostrils of the workers. For the Cadet's first time at drydock the sight of the vessel out of the water is breathtaking. Fascination, excitement, and the urge to observe and participate in every task fills the body, but it is important to remain aware of your surrounding as machines and hazards are present everywhere. Workers from all nationalities flood the ship. Signatures are signed, hands are shaken and the work begins aboard. For unknown reasons the

workers are drawn to the Cadets with questions, perhaps due to the misconception that they are officers. The ease to neglect all responsibilities or questions as "you're just a Cadet" or to show leadership and drive to fill that futuristic officer role are factors that define one's character.

A variety of jobs commence on board, the ship becomes a very busy ground as many activities concur simultaneously. Lifeboats are lowered to the shore for service. The accommodation ladder is taken off the ship for new paint. As a Cadet you are rarely tasked to one specific job, you are often bouncing around from one job to the next assisting as required. Whether that is helping dismantle the large air bottles situated securely in the lifeboat with the Third Officer, or cleaning the speed log ports of shellfish on the underside of the ship tasked by the Captain, you do what you can to help your fellow crewmembers as much as possible. One specific job often assigned to Cadets is standing by as enclosed space attendant. Keeping watch at the entrance of crude oil or water ballast tanks for crewmembers/company superintendents may not seem as the most glamorous job but it is essential nonetheless. The least the job requires is to stand next to the manhole providing periodic communication to the crew, but one can exceed minimum standards by gathering items such as water, rags and burlap sacks to be provided for the crewmembers after they emerge from the tanks, often exhausted and filthy.

After all the various works involved new life is given to the ship. With the new coats of paint on the hull her image is truly revitalized, this will prove advantageous in providing first impressions to Teekay's present and future customers. The new paint also increases fuel economy of the ship, allowing her to glide through the water with no added resistance of underwater fouling. The PV valves are lifted away from the ship's deck and taken ashore for testing. They are required to release pressure in the ship's cargo tanks at no less than 14.50KPA and draw air while in vacuum of no less than 3.50KPA. The Cadet may assist in the supervision of these tests and record results.

The final day of drydock arrives. The ship is ballasted and the dock flooded. Her newly serviced hull touches the sea for the first time and will remain submerged for at least another five years until next drydock. With the completion of drydock the ship sails away reborn, fit for further years at sea providing crude oil to her customers, and a work place and home for her crew. With the completion of drydock the Cadet leaves with a wealth of knowledge, and a new hunger to progress and excel within the industry.

BCIT Nautical Science Cadet Dylan Fowler.

This article appeared in Teekay's "The Standard" and won a Teekay Company award for Cadet Dylan Fowler.

Students navigate through Nautical Skills Competition: It may not be real, but the students manning the bridge of the simulator at the Marine Institute look tense. And for good reason. Looking out the wheelhouse windows the Irving oil drums tower overhead on the Southside Hills and across the harbour, ships line the waterfront. Ahead, another ship pulls out and heads straight for us. The students quickly act to make contact with the oncoming vessel and adjust their own vessel's course if need be.

This experience may not be real, but it is real experience for the students taking part in this year's Nautical Skills Competition (NSC) and an experience they wouldn't normally get.

Chris Hearn is the Director for the Centre for Marine Simulation. People in the industry are usually using the facility and students rarely get inside. "That was part of the reason for creating the competition", says Hearn. "We wanted to engage more with the students."

So they put together a series of events that test skills in four core areas of the nautical sciences — navigation, seamanship, shiphandling, cargo work and dynamic positioning.

There are eight teams of six and the students can be in years one through four of their program.

"Their spirit is really good. We've had skits and groups show up in outfits. One group got a flag and a Jack Sparrow hat," says Hearn.

The students look like they're all business. They're bringing a ship into port. They're navigating cargo in the offshore. Chris Reglar is a first-year student. The experience is unbeatable, he says.

"It's a world-class facility, so we want to get in there as much as anybody else," says Reglar. "All of the competitors get to use all of the equipment multiple times and otherwise we wouldn't get that exposure.

"It is fun. You can't go in with a sour attitude," says Reglar, adding that anybody taking part will come out with more experience than they had going in.
They'll come out with more than that, in fact. Besides bragging rights, they get their names on the Capt. Jim Thorpe trophy and $1,000 for each member of the winning team.

In the photo shown above, Marine Institute Nautical Science student Nick Dawe, foreground, and lookout officer Brandon O'Brien, simulate taking a large oil tanker in through The Narrows of St. John's harbour.
Photo by Joe Gibbons/The Telegram
http://www.thetelegram.com/Business/2014-01-27/article-3591738/Students-navigate-through-nautical-skills-competition/1

Bringing the Port to the classroom: For many students, the Port is right in their front yard. Starting this week, it's in their classrooms, too. **Port Saint John**, in partnership with **PALS (Partners Assisting Local Schools)** and the Anglophone South School District, is launching lesson plans about the Port and Maritime industries. The education program is designed to complement many areas of the curriculum and can be adapted for many grade levels.
"Students may see the Port every day, but they may not be aware of who we are or what we do. Each lesson plan developed between the Port and PALS team informs students about an important piece of their community and regional economy. We want them to learn about our industry in an exciting and creative way. Not only will it contribute to making them well-informed citizens, but it may also open their minds to future career possibilities," Jim Quinn, president and CEO of Port Saint John, said.
Quinn took the first group of students from Centennial School on a tour of the Port. Centennial School staff were helpful in focus-testing the resource as it was developed.
The Grades 2 and 3 students were shown a short presentation before touring the Port. They saw the Port facilities from the inside, including a special bus ride between the cranes and into the potash terminal. All sights were met with gasps of excitement and curiosity.
There are three unique lesson plans: Ports & Cargo, Cruise and Dredging. Port Saint John has made lesson plans available online and is already booking tours for teachers eager to help their students learn more about the Port.
"We are so pleased to enter this next phase of our PALS at the Port partnership. Port Saint John is at the heart of the city and, with this new resource, the students and staff of local schools will have an exciting way to become better acquainted with the Port and what it means to our community. Extending learning beyond the classroom broadens the horizons of our young people. Thank you to all who have made it possible," Deborah Fisher, PALS coordinator, said.
http://portcitysj.com/tag/new-brunswick/ Dec 13th 2013

The need for Continuous Training: The maritime industry, just like every other technological enterprise in the 21st century, never stands still. Ships are constantly evolving, their operations becoming more efficient and the pace of innovation remains remarkable. If the hardware is changing so dramatically over time, then those who have to operate it dare not stand still. Afloat and ashore, those involved with the operation of ships have to keep up with the pace of change and remain thoroughly up to date.
"You never stop learning in this job" was a comment by a shipmaster, who was actually retiring after spending more than forty years at sea, twenty of them in command of large passenger ships. And of course he was correct, with the constant changes ensuring that there was always plenty to learn about! New equipment, improved techniques, a constantly changing regulatory regime were just some of the aspects which had to be learned afresh if he was to remain the superb professional on top of his game.
Continuous or "through career" training is increasingly being recognised as important in all the maritime related professions. Once a Master or Chief Engineer would complete his statutory examinations to gain the superior licenses, and then might spend the next twenty or thirty years without any other training. Today, certificates have to be regularly revalidated to ensure that the officer remains professionally competent.
But there is more to continuous education than just staying on top of the job. It is recognised that if an individual is to develop both as an individual and a professional, he or she needs to remain open and alert to the challenges of training and education. There is always additional training or education available to make one a better professional, with the best employers giving the individual every encouragement to progress professionally.
It is also worthwhile noting that up-to-date technology itself is revolutionising the provision of training and education. Once, an individual wishing to progress educationally would have to physically attend college and somehow arrange this around their personal lives and employment. Seafarers, in particular, would find this quite a challenge.
The emergence of distance learning – which has now developed into e-learning – is revolutionising the world of training and education, making it possible for people to access a huge range of training courses, no matter where they might be in the world. It is now possible to remotely access seminars and lectures, participate in group or one-to-one

tuition sessions, and communicate on-line with those delivering the training. For its part, BIMCO has inaugurated a busy and expanding eLearning Diploma Programme, which is designed to assist shipping people become better practitioners through a number of modules which will take the student through courses in essential commercial and business knowledge.
22.10.13 https://www.bimco.org/education/seascapes/maritime_matters/2013_10_22_the_need_for_continuous_training.aspx

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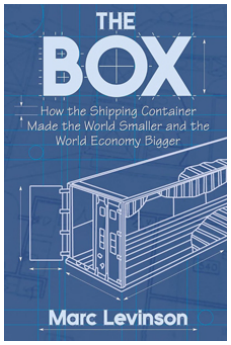
Innovation, Disruption, and Progress: What Do Vaccines, Software, and Shipping Containers Have in Common? ***By Bill Gates***



In the second half of the twentieth century, an innovation came along that would transform the way the world did business. At first, some people wrote it off as a fad. Others kept at it, convinced that it was going to have a huge impact. Some of the companies that made big bets on this tool were very successful, while others ended up going under. Ultimately, it helped accelerate the globalization that had already been under way for centuries.
I'm not talking about software. I'm talking about the shipping industry, and in particular an innovation you might not have thought much about: the shipping container. It is the subject of an excellent book I read this summer called The Box: How the Shipping Container Made the World Smaller and the World Economy Bigger, by a former Economist editor named Marc Levinson. "The Box" is mostly about globalization, but there is also a larger story here that touches on business and philanthropy more broadly.
For centuries, cargo ships were loaded and unloaded by hand, one crate at a time. Each crate might have a different destination, which made the whole process slow and expensive. In 1956, a trucking magnate named Malcom McLean had a clever idea: Instead of unloading a trailer's worth of crates onto a ship, why not put the whole trailer on the ship?
It was the beginning of a revolution in the way goods move around the world. Shipping lines ordered bigger and bigger ships to accommodate the aluminum boxes that soon became the standard container. Port cities from New York to Singapore raced to modernize their facilities to accommodate the larger ships.
By the early 1980s, the transition to the containerized system was essentially complete. Computers were coming into the picture as well. I remember meeting with the leaders of port authorities that wanted to go paperless. They would ask, Are the computer systems reliable? How do they work? Today it seems crazy that a ship would dock and somebody would get off with a piece of paper to show what's in the cargo hold.
The move to containerized shipping had an amazing impact on the global economy. As Levinson says, "A machine manufactured on Monday can be dropped at Port Newark on Tuesday and delivered in Stuttgart, Germany, in less time than it once would have taken to be loaded aboard a ship." He cites one study that says the container system reduced freight rates from Asia to North America by 40 to 60 percent. At the same time, it also led to job losses at ports, since greater efficiency meant you could move more freight with fewer dockworkers.
The story of this transition is fascinating and reason enough to read the book. But in subtle ways *The Box* also challenges commonly held views about business and the role of innovation.
For example, you often hear that it's a big advantage to get into a particular business early. But in both software and shipping, that wasn't necessarily the case. Some shipping companies made big bets early, and still failed. Apple was an early entrant in the PC business but didn't take off until many years later. At Microsoft it certainly helped that we got an early start, but we never took that advantage for granted.
Or consider the conditions that make it possible for an innovation to take hold. You often hear simplistic arguments that it never happens without government involvement, or the opposite, that government only gets in the way. But the truth is more complicated. For example, there was no way that shipping companies in the 1950s and 1960s could raise enough capital to invest in new cranes, deepening waterways, and other changes that ports needed to take advantage of the new containers and ships. Only governments could do that. On the other hand, Levinson makes it clear that governments' overregulation of the transportation sector held back a lot of innovation and kept costs high. So it is a complex picture.
That's also true when it comes to setting standards. The container revolution only took off after all the boxes were built in compatible shapes and sizes, which meant they could be transported on ships, trucks, and trains from different companies. Similarly, the Internet relies on a common protocol for sending information. But it's very hard to know ahead of time where these standards will come from. Few people would have predicted that the Internet protocol would grow out of a university research project funded by the U.S. Department of Defense. In the case of shipping containers, it took several years and the efforts of an obscure government agency and several industry groups to come to agreement.
These questions also touch on a lot of the work Melinda and I are doing through the Gates Foundation. For example, how can advances in shipping help deliver vaccines to remote areas, while keeping them cold so they don't spoil? In education, many states are adopting common

academic standards; how can these standards encourage software companies to develop new tools for teachers and students across the country?
Few people in the 1950s understood just how important the shipping container would be in shaping the global economy. That's often the case with innovation—it's hard to predict which ones will fizzle and which ones will change the world. That's why it's so important to keep investing in a broad range of innovations, whether they're in the field of genetics, robotics, agriculture, or other areas. It's the key to saving lives, driving human progress, and making the world a fairer place. You never know where the next shipping container will come from.
http://mobile.thegatesnotes.com/Books/Personal/The-Box Aug 9th 2013

Great Lakes levels rise, but low-water slump hasn't ended: Abundant rain and snowfall have given the Great Lakes a boost this year, but it's too early to declare an end to slumping water levels that have plagued the waterways since the late 1990s. All five of the lakes were significantly higher when measured at the end of October than a year earlier, when much of the nation was mired in drought. Even Lake Huron and Lake Michigan, which have fared worst during the low-water period and in January hit their lowest level since record keeping began in 1918, have risen nearly 30 cm, or a foot, since October 2012.
But Huron and Michigan, which scientists consider one lake because they are connected and their water level relative to sea level is identical, still were 43 cm, or 17 inches, below their long-term average for the month. Lake Superior was slightly below average and Lake Erie was normal. Lake Ontario, the only one with regulated levels, was 2.5 cm, or one inch above normal.
The dramatic rebound shows "how extremely wet conditions were last spring," said Keith Kompoltowicz, watershed hydrology chief with the U.S. Army Corps of Engineers district office in Detroit. "The snowmelt, combined with heavy rainfall, allowed levels to rise very quickly."
The Army Corps works with the National Oceanic and Atmospheric Administration and Canada's Fisheries and Oceans department to measure water levels from gauges and stations around the Great Lakes and to predict future trends.
In a forecast, scientists with the U.S. agencies said all five lakes probably would be below their long-term monthly averages by next April, around the time they begin their seasonal rise as winter snowmelt replenishes them. Huron and Michigan were projected to lag 40 cm, or 16 inches, below normal, although under a best-case scenario the deficit could be as little as 8 inches.
Superior and Erie are expected to be around 7.5 cm, or three inches below normal and Ontario about 15 cm, or six inches, below, although experts said the lakes could wind up higher or lower than projected depending on winter precipitation.
"Will we see another very wet period in 2014?" Kompoltowicz said. "Or will we return to maybe drier conditions? That may mean losing what we've gained."
Levels always fluctuate: While Superior could return to normal if winter precipitation is heavy, it would take several more wet years for Huron and Michigan to recover, Kompoltowicz said.
Great Lakes levels fluctuate seasonally and have experienced multi-year ups and downs. They were low in the 1960s, but by the 1980s were so high that Lake Michigan cottages were swept away.
In the late 1990s, they were jolted by a sharp decline that experts said apparently was linked to an El Nino event — a warming of Pacific Ocean temperatures that can affect weather patterns far away. It apparently caused a rapid acceleration in evaporation from the lakes that has continued since, said Drew Gronewold, a hydrologist with NOAA's Great Lakes Environmental Research Laboratory.

Michigan and Huron have been below their long-term averages for 14 consecutive years, the longest period on record.
It's unclear whether the rampant evaporation is the wave of the future, Gronewold said. But researchers have found that winter ice cover on the lakes is shrinking, while water temperatures are warming — conditions that would appear to favour continued high rates of water loss to the atmosphere.
This year's improvement has provided at least a temporary boost to shipping companies that have been forced to transport smaller loads of iron ore, coal and other commodities. Many vessels have hauled 5,000 to 6,000 tons more cargo this year than in 2012, said Glen Nekvasil, spokesman for the Lake Carriers Association. But that's still a good 5,535 tonnes below normal, he said. His group is lobbying Congress to provide more money for dredging shallow harbours. Regardless of which direction water levels go, "Mother Nature is not going to solve the dredging crisis," he said. Associated Press Posted: Nov 21, 2013
http://www.cbc.ca/news/canada/windsor/great-lakes-levels-rise-but-low-water-slump-hasn-t-ended-1.2434651

Are the "collision rules" adequate? The Regulations for Preventing Collisions at Sea have been regularly amended since they first appeared in the middle of the 19th century. Nevertheless, "unfamiliarity with, or ignorance of" the Collision rules are often cited in the aftermath of the many collisions which still regrettably occur.
The Collision Rules have been brought up to date over the years to take in the various technical changes as they have taken place in the shipping industry. They have for instance, been amended to take account of the emergence of radar in the midst of the last century, and in recent years navigators have also become used to automatic plotting aids, VHF communications and more recently, automatic identification systems, which make it possible to identify a radar echo.
But there is generally a considerable reluctance to make too many dramatic changes to a system, which, over the years, has served the navigator, reasonably well. There is invariably concern that there will be a lengthy period where, while some navigators are able to change their habits according to a new dispensation, others will remain fixed in the old and confusion will result.
Particular issues that occupy the minds of navigators, invariably after an accident, revolve around areas where the rules contain an element of ambiguity. Rule 14, for instance, refers to two vessels meeting on reciprocal or nearly reciprocal courses and requires each to alter her course to starboard. It is this word "nearly" which causes problems as research on simulators has discovered that this is open to different interpretations!
While Rule 14 places the onus on both ships to take action, most other rules define one ship as the "give way" vessel, requiring the other to maintain her course and speed – to "stand on". In cases where it is a narrow judgement whether a vessel is crossing or is indeed overtaking (different courses of action must apply), there is room for misinterpretation of the situation and has frequently led to a collision. It has been suggested that if the rules could be changed so that both vessels always have a duty to keep clear of the other, there would be less chance of them colliding.
Invariably, the interpretation of the collision rules is provided in Admiralty Courts in the aftermath of a collision, where it is decided whose fault it was, and who shall pay the damages! Definitions, it is suggested, like "early and substantial" when referring to a course or speed alteration need clearer explanation and various other ambiguities need to be ironed out once and for all. But in matters that are regarded as so very important in keeping ships apart, caution in making any changes is invariably the watchword, with even the greatest experts hesitant about making changes that might increase, rather than reduce, confusion. In future, however, the use of advanced simulators to "test" rule changes may help.
22.10.13 https://www.bimco.org/education/seascapes/questions_of_shipping/2013_10_22_are_the_collision_rules_adequate.aspx

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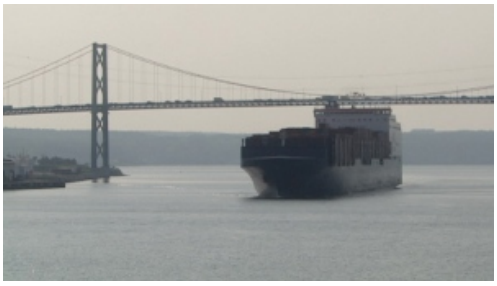
Pay attention to COLREGS, warns Videotel: Every incident of ship collision brings the risk of costly damage to a vessel and its cargo; the prospect of environmental damage; and the danger of personnel injury or even death. For 40 years, the International Regulations for Preventing Collisions at Sea (COLREGS) have been in force and yet still vessel collisions occur on a far too frequent basis.

Addressing this is the new hotly awaited training course from Videotel Marine International, the COLREGS & IALA Buoyage Training Course. Developed in conjunction with Steamship Mutual, the course is designed to ensure that all deck officers and crew performing lookout duties are fully conversant with the regulations designed to prevent unnecessary accidents. It deals with both COLREGS and the IALA (International Association of Marine Aids and Lighthouse Authorities) buoyage system.
"In recent years, increased ship size and high traffic density have heightened the risk of collision," explains Nigel Cleave, CEO of Videotel. "It is an absolute requirement that the watchkeeping officer – and indeed every member of crew performing lookout duties - thoroughly understand and follow these important rules to ensure safe navigation of the ship.
"Yet still the majority of incidents are caused through negligence and the failure to fully understand the Collision Regulations. Research has also found that the understanding of and adherence to the rules is not as comprehensive as would be expected. These regulations have been put in place to help the team on the bridge ensure the safety of the vessel, cargo and crew."
The first part of the course deals with the Collision Regulations. It clarifies the meanings of every Rule, putting them into simple easy-to-understand language and illustrating them with graphic diagrams, sound and light signals, where appropriate. It also includes the full text of the Rules and the four Annexes.
The second part of the course deals with the IALA buoyage system. Being able to recognise every buoy and knowing what each means is essential for all watchkeeping officers and each type of buoy, their top marks and lights are described and their meanings illustrated graphically. The course deals with the lateral buoyage systems in regions A

and B, the cardinal marks, isolated danger marks, safe water marks, special marks and the emergency wreck marking buoy.
For maximum effect the course is delivered using interactive eLearning Computer Based Training (CBT). Voiced narration, graphics and 3D animation as well as video are used to illustrate concepts and aid understanding. As this knowledge is fundamental to bridge watchkeeping, both parts of the course end with a test comprising of extensive randomised questions and a high pass mark is required.
Over the last three months alone Videotel has produced and launched over 15 training programmes and courses, which are provided in up to 29 languages. These range from training programmes on COLREGS to others dealing with a variety of important subjects including specialist requirements for Deep Water Ship handling to the practical management and switching of marine fuels. November 26, 2013
http://www.maritime-executive.com/article/Pay-Attention-to-COLREGS-Warns-Videotel-2013-11-26/

Halifax Harbour container ship safety measures questioned: There are calls for a key safety measure to be made mandatory in the Narrows of Halifax Harbour after a 280-metre container ship lost engine power two weeks ago and was righted with the help of a tug tethered to the stern.



The *OOCL Oakland*, a Post Panamax ship, was turning toward the Macdonald Bridge as it cleared the Narrows — a constricted passage to the Bedford Basin — when its engine momentarily failed three times early in the morning of Nov. 5.
The vessel was helped by tugs, one of them tethered to the *Oakland* with a stern towline.
Tug companies charge to tether vessels. The Atlantic Pilotage Authority said the tether is not mandatory for ships, although the Halifax Port Authority said it is required for certain vessels.
Veteran harbour watcher Mac Mackay revealed the incident on his blog and wrote that a stern tether acts like a rudder. He is urging stricter regulations so all large ships travelling through the Narrows have a stern tether. He raised the prospect of a massive ship floating into the bridge, or drifting with dangerous goods on board. Mackay raised the spectre of another Halifax Explosion if vessels go without the towline and there is an emergency.
The Halifax Port Authority said it would study the incident and incorporate it into a larger review already underway into safety in the Narrows.
"The pilots and the tugs did a fantastic job of stepping in and doing what needed to be done," said Lane Farguson, a spokesman for the Port of Halifax.
"It's also important to point out in this particular case there was no injury and no damage to property as result of the incident."
There are also questions being raised about why the Macdonald Bridge wasn't cleared of traffic, even though the pilot onboard the *Oakland* radioed that it should be closed.
The Halifax-Dartmouth Bridge Commission said it had people on site and monitoring the ship's progression, but the general manager and CEO said he was not familiar with a request to stop traffic.
"At all times matters were, from our perspective, under control," said Steve Snider.
"There was no threat to the bridges." CBC News Nov 19, 2013
http://www.cbc.ca/news/canada/nova-scotia/halifax-harbour-container-ship-safety-measures-questioned-1.2432564

Mercer finds locks 'astounding': Niagara got a little more publicity thanks to satirist Rick Mercer. Mercer was in St. Catharines in November filming a segment for the *Rick Mercer Report* in which he hops a freighter for a truncated voyage up the Welland Canal.

"We went through two of the locks to show that process, how the ships go in, and explain how the locks work," Mercer said in a telephone interview wedged between shooting his rant scene and an in-studio rehearsal. "For someone familiar with the area, you might not think that that's the type of thing that people would find mind-blowing, but I certainly found it pretty astounding."
Mercer was aboard the Canada Steamship Lines vessel *Whitefish Bay*, which was bound to Toledo, Ohio, with a load of iron-ore pellets.
"I never really realized how big those ships are and how narrow those locks are. The ship I was on, there was less than nine inches of room on either side."

High winds put the trip in jeopardy, however, a break in the weather allowed for it to take place. He boarded the ship in the morning and stayed with the crew until nightfall.
He was impressed with the quality of food served aboard ship. "The grub was great. There were lots of choices. I had a beef and tomato pasta. I know people were having feta and smoked salmon phyllo pastry puff things."
Mercer said he has an appreciation for sailors. "They have a pretty tough job, frankly. They spend months at a time aboard the vessel, away from their families. I think it's a pretty tough job."
rob.houle@sunmedia.ca November 29, 2013. http://www.forterietimes.ca/2013/11/29/mercer-finds-locks-astounding

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Damen to deliver 80 m Ice Class ferry for Fogo and Change Islands: The Newfoundland and Labrador Provincial Government has awarded Damen Shipyards Group an order for a state-of-the-art, 80 m Ice Class ferry, which will operate on the Fogo Island-Change Islands service. Scheduled for delivery in September 2015, the 14-knot ro-ro ferry will be able to carry up to 200 passengers and 60 vehicles.

The investment in the new ferry is part of the Government's vessel renewal program. She will replace the aging *MV Captain Earl Winsor*.
On making the announcement, the Honourable Nick McGrath, Minister of Transportation and Works commented, "Our investment will provide for a new ferry service for Fogo Island and Change Islands, ensuring a prosperous and bright future for local communities and delivering long-term prosperity to the region."
response to the Government's request for proposals for the construction of new ferry vessels. Government representatives visited Damen headquarters and its shipyards, as well as some ferries previously built by Damen for the Texel-Den Helder service in the Netherlands.
Following the extensive evaluation process, Damen received the highest overall score of all the proposals, as it "will provide the best value to the province and a high quality vessel that will be delivered on time and on budget." Jan van Hogerwou, Manager North America, Damen Shipyards Group, said, "Damen is not new to the East Coast of Canada. We have licensed our Spa 4207 patrol boat design to Irving Shipyards for the local construction of the Mid Shore Patrol Program of the Canadian Coast Guard and we recently delivered two high-end pontoons to a Canadian operator for deployment at a large offshore project in Newfoundland and Labrador." However, this ferry project on the East Coast of Canada," he continued. "The 80 m ferry was designed by a Canadian engineering firm and the Damen Shipyards Group looks forward to further enhancing the working relationship with this company to ensure that this new vessel meets all possible requirements, not only for the Government of Newfoundland and Labrador but also for the passengers she will transport in the next few decades." Together with the Newfoundland and Labrador Provincial Government, Damen is also exploring more opportunities about how it can be more closely involved in the local community and further development of the shipbuilding industry in the region.

MarineLink.com
Maritime Reporter and MarineNews magazines online

December 2nd 2013. http://www.marinelink.com/news/deliver-canada-damen361565.aspx

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Ministry of Defense Unveils Its New Successor Subs: In a recent update to Parliament concerning the development of its future submarine fleet, the UK Ministry of Defence (MoD) released concept images of its future ballistic missile sub – the *Successor.*

In development since 2006, the *Successor* will be powered by a Rolls-Royce PWR3 nuclear reactor that won't require refuelling, and the sub will have the ability to carry 12 Trident D5 ballistic nukes.
Cutting a streamlined design, the *Successor* also builds upon the design and manufacturing methods employed in the Royal Navy's *Astute*-class attack subs, which are currently under construction.
According to the MoD plans, the *Successor* sub will first see service in 2028, and will patrol the seas until 2060. Carrying a price tag of $18-23 billion a piece, British officials are still unsure just how many *Successors* will be produced by UK shipyards.
While the costs of the *Successor* program have inspired some concerns in Britain, Admiral Sir George Michael Zambellas is confident in the boat's abilities. "The Royal Navy has been operating continuous at-sea deterrent patrols for more than 40 years and the *Successor* submarines will allow us to do so with cutting-edge equipment well into the future."

What's more, Defence Secretary Phillip Hammond also pointed out that the "The *Successor* programme is supporting around 2,000 jobs, and up to 850 British businesses could benefit from the supply chain as we exploit the most modern technologies and employ a significant portion of the UK's engineers, project managers and technicians over the coming years."
Given that BAE Systems Maritime has just been awarded two contracts worth $136M to design the sub, it seems safe to say that the Royal Navy will be christening a new line of nuclear powered ballistic subs sometimes in the late 2020s.
December 18, 2013. *Image Courtesy of Ministry of Defence*
http://www.engineering.com/DesignerEdge/DesignerEdgeArticles/ArticleID/6844/Ministry-of-Defense-Unveils-Its-New-Successor-Subs.aspx

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Russian submarines outfitted to break thick Arctic ice: By 2016, Russian submarines will have the ability to cut through thick, Arctic ice without damaging the ship's housing during rapid surfacing, thanks to a new design that puts advanced technology on the boats.
The new technology for the submarines will allow subs to quickly surface for Arctic missions or to rescue the crew in case of an accident, according to the Central Design Bureau for Marine Engineering in charge of the new submarine design.
Current submarine design does not allow the ship to break the ice to emerge quickly without damage to the housing. Igor Kurdin, the former commander of the nuclear submarine *Yekaterinburg* and the chairman of the St. Petersburg Submariners' Club, said that to exit the boat on a surface covered by ice, there are two ways: surfacing without at a very slow speed or, as an extreme case, on-the-go breaking the ice with the ship's housing.
"Surfacing on-the-go is fraught with injuries to the housing, sliding devices, sonar system and torpedo tubes. Today cases of ice breaking on-the-go are unknown, but surfacing without speed is a regular manoeuvre often used," Kurdin said.
Before surfacing in normal mode, the boat "hangs" in the water, and then begins to rise very slowly - the rate of several centimetres per minute, he said. To ensure a safe ascent while moving, the wheelhouse and the bow of the boat have to be strengthened, since these parts take the blow.
The new additions will have management software that searches for the thinnest area of ice, as well as an apparatus that works to clear the housing of ice fractures from the deck as the ship rises. Kurdin said that missile silos, the most important strategic parts of the submarine, are often enclosed by ice while surfacing, so the new design should solve this problem.
"Surfacing from the ice is done for only one purpose - for the application of nuclear missile attack from a surface position. This is done only in the Arctic regions. After surfacing, when people come on deck, the whole deck is in huge blocks of ice," Kudrin said.
Designers will now need to develop a rescue camera for the crew, which must also penetrate the ice so the boat can access the air and communicate with rescuers. Rescue cameras will be equipped with radios, navigation devices and signalling buoys. The Arctic submarines will also have a surface point that will analyze ice conditions in the waters of swimming submarines. December 16, 2013. Alexey Krivoruchek. Izvestia
http://rbth.ru/science_and_tech/2013/12/16/russian_submarines_outfitted_to_break_thick_arctic_ice_32611.html

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Coast Guard reviews fees for services. Working group looks at revenue targets for marine navigation, icebreaking provided for vessels: For the first time in 15 years, Canada's Coast Guard is reviewing the amount it charges transport ships, ferries and other commercial vessels for navigational and icebreaking services.
The move comes as the Coast Guard works to manage a combination of mounting costs, budget cuts and growing demand for its services.
Canadian Coast Guard deputy commissioner Jody Thomas said the fee review is part of a larger examination of what services Canada's commercial maritime industry need from the Coast Guard - and what might be phased out or reduced.
"Our stake holders want to ensure that they get good value for money," she said in an interview. "So it becomes a discussion of the fee base and the fee structure and what the range of services we offer are, and how we should work with them going forward."
A working group that also involves industry representatives has been established to review the marine navigation services fee and icebreaking services fee, neither of which has changed since being introduced in 1996 and 1998, respectively.
The Coast Guard expects any proposed changes to be tabled in Parliament in the next year or two - though some officials would likely prefer sooner rather than later.
A secret briefing paper prepared in December 2012 for the Department of Fisheries and Oceans' top bureaucrat, Matthew King, says the fees are an important source of revenue for the Coast Guard.
But while they generate about $33 million each year, the paper notes that is significantly less than the Coast Guard's $41-million "revenue target."

"While the Marine Navigation Services Fee generally meets or exceeds its annual revenue target," the briefing paper reads, "the revenue target shortfall associated with the Icebreaking Services Fee is approximately $8 (million) annually."
That is even more significant given $56.8 million in spending reductions ordered by the federal Conservative government over the past three years, combined with growing demand for Coast Guard services.
"Rising marine traffic, technological changes, climate change impacts (such as fluctuating water levels), and extended shipping seasons are among the factors expected to place increased demands on Coast Guard services," reads the briefing paper, which was obtained through access-to information laws.
The Coast Guard is trying to address these demands to the extent possible within its budget."
Thomas described the Coast Guard's financial situation as "tight," but she said it is managing as best it can without compromising service to Canadians.
"There's not a government department in town that wouldn't say, 'Sure I could use more money,' and given the choice we'd rather have more than less," she said.
"But we're very confident that our level of service is consistent with what we've offered in the past and that we're not putting mariners at risk by the decisions we've made."
Canadian Shipowners' Association president Robert Lewis-Manning said the review provides an ideal opportunity to get a handle on what services industry needs from the Canadian Coast Guard and what can be reduced.
"When you're talking about Canadian domestic shipping, ships that are registered and operate in Canadian waters or North American waters, we don't see a big need for a lot of the physical navigational aids like buoys and markers," he said.
But Lewis-Manning said any change - particularly an increase in fees - must strike a balance to ensure it doesn't hurt Canada's maritime industry.

BY LEE BERTHIAUME, POSTMEDIA NEWS DECEMBER 24, 2013
The icebreaker *Amundsen* plies the Nachvak fiord in Labrador. Icebreaking fees charged to industry haven't changed since 1998.
Photograph by: John Kenney, Postmedia News Files, Postmedia News
http://www.vancouversun.com/Coast+guard+reviews+fees+services/9321053/story.html

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More ice on Lake Michigan than seen in decades: MUSKEGON, Mich. (WZZM) -- Lake Michigan water levels hit historical lows last year, but this cold winter may be helping in the Great Lakes' recovery. According to Environment Canada, the Great Lakes haven't had this much ice so early in the season since the late 1980s.
Great Lakes ice can be a bad thing, especially for shipping, a week before Christmas, when a freighter carrying 17,000 tons of coal got stuck on thick ice on Muskegon Lake. This meant Consumers Energy had to cancel its last two coal shipments of the winter.
On the plus side, ice has the benefit of raising water levels in the Great Lakes. Alan Steinman of the Annis Water Resources Institute explains, "When you have more ice formation, you have less direct contact with the atmosphere, less opportunity for evaporation and that keeps the water levels up."
For the last 20 years with lower ice coverage, more water had evaporated, contributing to the low water levels seen last year. "We were setting records for the lowest water level in recorded history," explains Steinman.
Another benefit to more ice coverage and less evaporation is less cloud cover and less lake effect snow. In other words, you will see the sun more.
From a historical perspective, the current ice level is on track to do something we haven't seen in decades: cover most of Lake Michigan. Looking at a NOAA ice coverage map from January of 1977 it looks a lot like the current ice coverage map today, according to WZZM 13 Chief Meteorologist George Lessens, "1977 was one of the coldest winters on record." January 3rd 2014
http://www.wzzm13.com/news/article/277421/14/More-ice-on-Lake-Michigan-than-seen-in-decades

Stuck in ice a week before Christmas in Muskegon Lake

Icebreakers keep commercial shipping moving on Great Lakes: Icebreakers from the U.S. and Canada are operating at full capacity as they work to keep shipping lanes open to Lake Michigan and Lake Superior. The Coast Guard cutter *Biscayne Bay* is putting in 12- to 14-hour days breaking 1-3 foot thick ice around the Soo Locks and St. Mary's River. Captain Tom Przybyla says they've had two days off since December 12.

"We were lucky to be able to get Christmas off. We didn't get to pull in until two in the morning the day of Christmas. Then we got some sleep and got to have Christmas off," Przybyla said. "We were back at it the next day."

The long spells of sub-zero temperatures have all nine U.S. Great Lakes cutters on duty. Przybyla says virtually every ship needs help. So far, his Biscayne Bay has assisted some 20 lakers ... and, he says, it's gut-busting work.

"The ship vibrates a ton. You're vibrating all day. You're using a lot of power. The propellers are vibrating. The engines are vibrating. It's pretty fun, too, but it is jarring to be doing that day after day."

The 730-foot bulk freighter *American Mariner* was stuck in ice in the St. Mary's River for two days before the Coast Guard cutter *Mackinaw* freed it Tuesday. (Then the *Mariner* was again caught in ice later that same day.)

Lieutenant Michael Patterson is the Captain of the 140-foot icebreaker *Katmai Bay*. His boat was dead in the water Monday and had to be towed for repairs. Patterson says the ice is tough, and so is the job.

"It is. It's very noisy. It makes things like sleeping during ice breaking evolution for the crew that's not on watch difficult. But it's what these vessels were designed to do and they take that impact very well."

The cutters will be on the job in the St. Mary's River until the Soo Locks close January 15. Then they'll have to keep the Straits of Mackinaw clear for the rest of the winter for boats to go between Lakes Erie, Huron and Michigan.

Wisconsin Public Radio. January 10th 2014. www.boatnerd.com

Watchkeeper - The (lost) art of cargo care: Those old enough to recall the general cargo ships which operated liner services to all parts of the world will remember the inordinate amount of time and effort spent in "cargo care". Huge fortunes were spent on dunnage and Kraft paper and the supervision of stowage was the pre-eminent role of the deck officer with the ship alongside. The "art and science" of good stowage and securing occupied a large part of both the practical and theoretical knowledge necessary for the statutory qualifications of these officers. The avoidance of and the faithful recording of any damage to the cargo was also regarded as essential if a good "out-turn" of the cargo was to be accomplished.

Sadly, very little of this huge repertoire of knowledge and experience seems to have made the transfer from breakbulk into the containers which came to dominate liner operations with a few short years. Early on, the major consortia tried hard to educate those in the inland container consolidation depots and the premises of the major shippers about how to stow and secure cargo within a container. But once it was assumed that the messages had been absorbed, the lines withdrew, leaving it to those doing the "stuffing" to ensure that it was being done correctly.

The evidence of collapsed stows, of cargo bursting through the sides of boxes and the sheer cost of cargo insurance paying for eminently avoidable damage all suggests that there is a good deal of work to be done in this area. While it might be the maritime world which appears to bear the most scars in this respect, road and rail modes each have too many claims in this area, as unbalanced or unsecured cargo causes container s or trailers to overturn on roundabouts or bends and whole trains have been derailed.

So there is some hope that the arrival on the scene of the new IMO/ILO/UNECE Code of Practice for Packing of Cargo Transport Units (CTUs) will make a difference. It has been three years in development and will, it is hoped, be very much more effective than the 1997 CTU Packing Guidelines. Hopefully to be finalised in Geneva this month and to be approved next year, the Code is a much more all-embracing document, and although non-mandatory, it is hoped that individual governments might see the benefits of its more rigorous approach to CTU packing.

But how can the good practical advice contained in this document, when it appears, be transmitted to the thousands of people all over the world in their thousands of premises who are responsible for loading these units? This was the subject of a useful International Cargo Handling Co-ordination Association (ICHCA) International seminar in London last week, at which everything from practical training to enforcement was covered.

The Code, it seems, will be structured in such a way that it can be "broken down" into sections so that specialist packing staff can be trained in their specific specialities. There are already good packages available for e-learning and similarly structured training, while the use of "pocket guides" and even apps would appear to provide means of getting the message across. It has been suggested that CTU packing companies would themselves see the advantages of quality training in a competitive world, with its marketing advantages. And in the end, of course, the results will speak for themselves. Fewer claims, better out-turns, less damage will be the true test of the efficacy of this Code and its implementation.

Articles written by the Watchkeeper and other outside contributors do not necessarily reflect the views or policy of BIMCO.
30.10.13

Watchkeeper. Why stevedoring matters: Last week, BIMCO President Mr. John Denholm gave an address to the General Stevedoring Council meeting in London at its 44th Working Lunch. The President took the opportunity to bring GSC members up to date with the current work of BIMCO, pointing out how the organisation continues to respond to the needs of the shipping industry in so many different ways.

The can be no doubt that both in the liner and bulk trades, the work of stevedoring management remains absolutely vital for the safe and expeditious operation of ships. The role of the GSC has been, and continues to be, one of education, promoting best practice through the professional training courses it runs around the world. Once, of course, stevedoring management revolved around the control and deployment of large numbers of men in cargo handling, in the world's ports. Nowadays stevedoring has become a highly capital intensive operation, with complex terminals playing a vital role in global logistics. Labour still has to be managed, but the sort of skill sets in the relatively small number of people operating container or bulk terminals is very different. Management has also become a far more sophisticated area of business.

Increasingly, as ship operation has become more precise, the work undertaken in port has grown in importance. Port time was always regarded as "non-earning" by owners anxious to keep their ships running productively, but the twin pincers of fuel costs and environmental pressures have focussed more attention than ever on in-port efficiencies.

Efficient port operations enable some of the round-voyage time lost through fuel-saving slower steaming to be recovered, while reducing the total time cargo spends on its journey. So the shipping industry has a very vested interest in the work of the stevedores and will surely encourage the educational work of the GSC to this end.

The GSC courses are designed to bring together people from a broad range of stevedoring experience from around the world, stimulate their thought processes and enable them to get away from their own local job pressures for the extent of the fortnight's activities. During this time they will see a range of very advanced terminal operations, in countries other than those in which they normally work and have the opportunity to speak to those managing them. They will have presentations from a range of industry leaders, team up and undertake projects that will be useful to them and above all, learn a great deal from each other.

They will become better informed about cargo handling and the shipping industry worldwide, with the typical course taking in stevedoring managers from every continent. They will invariably make friends and in doing so, become better professionals through this "networking" process. And perhaps most important, the business of cargo handling, in whatever sort of terminal it may be practised, will gain from the spreading of ideas and best practice. BIMCO itself is anxious to see Continuous Professional Development established throughout the shipping industry. The transmission of ideas throughout the stevedoring sector worldwide by this initiative of the GSC can only be encouraged.

Articles written by the Watchkeeper and other outside contributors do not necessarily reflect the views or policy of BIMCO.
December 4th 2013. https://www.bimco.org/news/2013/12/04_watchkeeper_week_49.aspx

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Canadian Shipowners seek fairness, predictability and harmonization of U.S. ballast water discharges regimes: The Canadian Shipowners Association (CSA) has formally sought a legal review in the United States of the implementation dates found in the Environmental Protection Agency's (EPA) Vessel General Permit (VGP). The VGP imposes requirements that are currently impossible, making this review critical to ensuring fairness and predictability for CSA's members' operations in the U.S. waters of the Great Lakes; a vital link in the continental supply chain. Currently, there are two federal ballast water discharge regimes; one imposed by the EPA and another by the United States Coast Guard (USCG).

The USCG will eventually certify ballast water treatment systems for use in ships, but no systems have yet to qualify. Recognizing this compliance challenge, the USCG has begun to provide extensions to affected vessels. Unfortunately, the EPA has thus far declined to respond to industry's requests for parallel extensions, which has resulted in two different and conflicting federal regulatory regimes. This divergence in approach will adversely affect Canadian shipowners and their Canadian and American customers. "We would like to see the EPA harmonize with the approach of the USCG and facilitate continued operations," stated Robert Lewis-Manning, the President of the CSA.

Protection of the marine environment is paramount to the CSA's membership. The CSA membership operates Canadian-flagged and specially designed ships on Canadian coastal, Arctic and inland waters, with highly skilled Canadian crew that are part of a $35B Great Lakes - St. Lawrence Waterway marine transportation system. Recent investments of over $700 million in 14 new vessels, have positioned the industry for sustainment and a reduced environmental footprint. A report on the Environmental and Social Impacts of Marine Transportation (Research and Traffic Group, 2013) identified Marine transportation as the most sustainable form of transportation.
SOURCE Canadian Shipowners Association. Jan 7th 2014
http://www.newswire.ca/en/story/1286011/canadian-ship-owners-seek-fairness-predictability-and-harmonization-of-u-s-ballast-water-discharges-regimes

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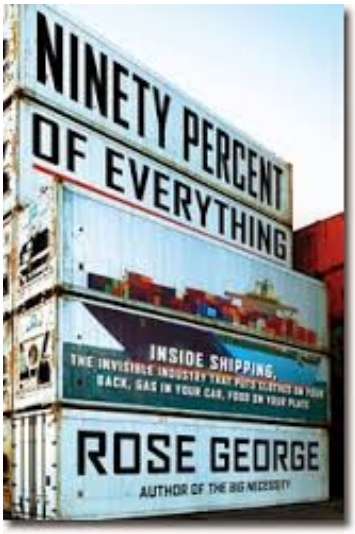
The next revolution in cargo will be the container ship drone: Drones will revolutionize transportation. Driverless cars are expected to be on the streets by the end of the decade, and as discussed ad infinitum this month, Amazon wants to deliver products to your doorstep using unmanned aerial systems.
Now, the British engineering group Rolls Royce wants unmanned, remote-controlled ships to transport freight and goods across the seas.
"The idea of a remote-controlled ship is not new, it has been around for decades but the difference is the technology now exists," Rolls Royce's head of marine innovation Oskar Levander, told the FT in an interview (paywall). "It is happening in other industries so it is only logical that it should happen in marine."
When it comes to predictions about the adoption of new transformative products, technologists have been repeatedly and spectacularly wrong. But that's usually due to them being too conservative, rather than unduly optimistic. That's as good a reason as any to believe the drone hype.

Still, there are plenty of hurdles that need to be cleared before drones can crack the mainstream. There's a long list of reasons why it will be difficult for unmanned aerial drones to be used for residential product deliveries (especially by 2015, which is Amazon's hopeful start date), including prohibitive costs and strict regulations.
Drone cargo ships face their own obstacles, including inordinately complex international maritime laws. Yet the prospect of significant cost savings and fewer accidents might be enough to entice the industry to continue to pursue the idea.
Ships with no human crew would appear to be highly vulnerable to attacks from pirates. One way to protect them? More drones. The US has been deploying unmanned surveillance planes to ward off pirates off the coast east Africa for years. There are now even drone boats designed specifically to hunt down pirates.
http://qz.com/161740/the-next-revolution-in-cargo-will-be-the-container-ship-drone/ December 27th 2013

Inside the secret shipping industry: Rose George wants the general populace to see the wonder of the shipping industry. She presents the good, the bad, and the awe-inspiring aspects of seafaring in her TED talk, Inside the Secret Shipping Industry.



Shipping is responsible for 90% of world trade and has quadrupled in size since 1970. The world is dependent on the 100,000 current sea vessels to deliver goods, now more than ever, and no replacement industry is being researched or designed.
The general public is more than familiar with Microsoft but not Maersk, even though the two companies have similar annual revenue. The First Sealord of the British Royal Navy has said that society has a sea blindness, ignoring the water as a place of industry.
Rose took a trip on the *Maersk Kendal*, a mid-sized container ship with around 7,000 shipping containers heading from England to Singapore. They traveled through five seas, two oceans and nine ports over five weeks.

The first revelation was the efficiency of the industry. Ships are heavily automated and instead of a navy ship with hundreds of sailors the *Kendal* has twenty-one crewmembers. The pace of modern shipping is fast and punishing, with crewmembers on sea for two months at a time.

Because of an innovation called Flags of Convenience a ship can fly the flag of another country beyond the country that owns and operates it. This can be done to lower registration fees and taxes or to find cheaper labour. Flags of Convenience also bring the opportunity for varied crews. Rose's crew during her trip, included members from China, Burma, Moldavia, Romania, India and the Philippines.
When measuring carbon emissions per ton per mile shipping is greener than aviation and trucking, but due to the massive nature of the shipping industry there's still heavy amounts of pollution generated. In 2009 it was calculated that the fifteen largest ships in the world give off as much soot and noxious gases as all of the cars in the world. Acoustic pollution can also damage the habitat of sea creatures, especially whales and dolphins.
As engineers the opportunities for innovation and optimization in the shipping industry are almost limitless. There are opportunities for mechanical, electrical, industrial, civil, chemical, packaging and manufacturing engineers to research design and build products to bring us into the next century. Dec 14th 2013
http://www.ted.com/talks/rose_george_inside_the_secret_shipping_industry.html
http://www.savetheroyalnavy.org/wordpress/tag/sea-blindness
http://www.engineering.com/DesignerEdge/DesignerEdgeArticles/ArticleID/6818/The-Secret-Shipping-Industry.aspx

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Coast Guard ship deal nears completion: An Irving Shipbuilding Inc. contract to build nine vessels for the Canadian Coast Guard is winding down, with the seventh scheduled ship to be launched on Saturday.
Preparations are underway at Irving-owned Halifax Shipyard to launch *CCGS A. LeBlanc*, a *Hero-class* vessel named after fisheries officer Agapit LeBlanc, of Bouctouche, N.B., who was killed in 1926 while investigating illegal fishing vessels.

"There are several more weeks of work to complete on ship 7 before sea trials are conducted, which we expect to take place in February," shipyard spokeswoman Deborah Page said in an email.
"The ship will be delivered to the Canadian Coast Guard following successful sea trials."
The *Hero-class* midshore patrol vessels, which will ply the Atlantic and Pacific coasts, Great Lakes and St. Lawrence Seaway, are larger and faster than those now in use, the Coast Guard has said.
The vessels will be the main ships for the joint Coast Guard-RCMP marine security enforcement team on the Great Lakes and on the seaway.
On the East and West coasts, they will work with fisheries officers to enforce regulations and guidelines, patrol the coast and discourage smuggling.
The other ships are named after two soldiers killed in Afghanistan, two First World War soldiers, two Coast Guard members and two RCMP members.
The last two vessels are expected to be delivered to the Coast Guard sometime in 2014.
Jan 3rd 2014. http://thechronicleherald.ca/business/1176629-coast-guard-ship-deal-nears-completion

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ECDIS explained: ECDIS is the future basis of navigation in the world's merchant fleet. It is essential that navigators of all ages and experience learn how to use ECDIS to make the best decisions possible.

Many ships today carry both paper charts and electronic charts. It is essential for navigators to recognise the difference between a generic (and unofficial) Electronic Chart System (ECS) and an Electronic Chart Display and Information System (ECDIS), which has been approved by the IMO as meeting the requirement of 'charts' as required by SOLAS. An official ECDIS consists of a type-approved system, using official Hydrographic data (chart info), and the entire installation must be approved by the vessel's Flag Administration. Crew using non-ECDIS systems for navigation will not fare well in court, should something go wrong.
New navigators just entering the shipping industry may adapt quickly to the use of ECDIS given their familiarity with computers and shore-based map services such as Google Maps. However, all navigators, regardless of their backgrounds, will have to adopt a professional ECDIS mindset to enable them to use the technology effectively. During this transition period it's essential to

understand the strengths and weaknesses of ECDIS. This presents an opportunity for navigators of all experience to work together to master the system.

One of the key differences between paper charts and electronic charts is how the information is portrayed. With paper charts cartographers decided how to show the information they felt navigators needed. However, with electronic (vector) charts, all data/information is stored in a database and it is the actions and decisions of the mariner that decide what and how much information to show. This new ability to customise the chart display offers great possibilities if used correctly, as well as huge risk if used incorrectly.

As an experienced driver renting a car, you would expect to only need a short period of time to familiarise yourself with the controls and drive away safely. Unfortunately, ECDIS doesn't have the same level of standardisation, so it is even more important to have a sound basis of 'generic training' (IMO model course 1.27) and to be able to demonstrate full competence of familiarisation with onboard systems, based upon industry agreed standards, before you can 'drive away safely'.

The Nautical Institute has worked with its members and other industry stakeholders for years to identify critical ECDIS issues. Some guidance is contained in the books sold by the Nautical Institute but much more is available free for all users. For more information and resources visit www.nautinst.org/ecdis.

David Patraiko FNI. Director of Projects, The Nautical Institute.

This article, and more about ECDIS, can be found in the February 2014 edition of *The Navigator,* a free publication by The Nautical Institute with the Royal Institute of Navigation www.nautinst.org/thenavigator

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1974 – when the wave broke: As *The Sea* enters its 40th year of providing news for seafarers all around the world, Michael Grey looks back at how much the industry has changed since this news service began.

What was the shipping world like in 1974, when *The Sea* first appeared? "Very different from today" might be a concise answer to the question, but it deserves a fuller explanation!

1974 was the year shipping grasped the implications of the huge increase in the price of crude oil, after the Organization of Petroleum Exporting Countries (OPEC) flexed its muscles for the first time. Prior to this political and economic earthquake, ship operators hardly bothered to consider their fuel prices, which averaged around 12% of the vessel's operating costs. But, suddenly bills from the bunker suppliers amounted to more than 35% of these costs. This was a crisis!

It was a time of long voyages. The Suez Canal was still closed following the clear-up operations after the 1973 Yom Kippur War and demand for all sorts of ships was high. Scale economies were licking in and there was a huge order book for very large crude carriers (VLCC) and even ultra large crude carriers, all being built to ship oil from the Middle East to Europe, also around the Cape and to Japan.

Shipbuilders were frantic to turn out the bigger ships in the numbers the owners wanted. Great ship-factories, with new shipbuilding methods, were constructed in Asia and Europe and everyone marvelled when Japan's Tsu shipyard completed a 260,000 tonner in just over four months, instead of the years it would have taken using traditional methods.

There was an emphasis on speed and power. Astonishing horsepower was being crammed into the machinery spaces of new containerships with little account for the furl bill. US carrier Sea-Land commissioned eight 30-knot containerships to work in its Pacific and Atlantic services, each with steam turbines like those that powered the US Navy. Cargo liner owners experimented with gas-turbine installations and multiple engines. The world's biggest refrigerated cargo ship was the 1,813-teu containership *Remuera.* It was an exciting time to be a marine engineer.

That said, it was the productivity that mattered, and it was the efficiency of these new ships in their amazing new port terminals that disturbed seafarers the most. There were no more leisurely weeks in port as dockers slowly loaded and discharged cargo – containerships would measure their port time in hours, while life in the tanker trades, on huge vessels on long trudges around the Cape of Good Hope, was of a very different pace. There were new technologies to be mastered – roll-on, roll-off ships, in both ferry and liner trades, traded on their productivity and there was a new emphasis upon efficiency. Bulk carriers were bigger and worked harder than ships had ever done before.

These new technologies had been expected to slash jobs at sea. A single VLCC would do the work of the nine smaller tankers she was replacing, and the fast, productive containership would condemn up to ten conventional cargo liners to redundancy – along with their crews. The world fleet increased with the newbuilding boom and in the mid-1970s, the real impact on employment started to emerge. Desperate to save costs, owners flagged out to cheaper registries, seriously reduced crew sizes, and obtained crews from far cheaper sources, who could be employed under flags of convenience. Seafarers from traditional maritime nations suffered the consequences of the crisis with redundancies and the realisation that if jobs were to be found, terms would be less generous.

Were bigger and faster ships safer? Well, they may have been less likely to have a hard time in bad weather, although the pressure on schedules meant harder steaming, when in a more leisurely age, ships would have slowed down. This combination of speed and pressure saw an increase in collisions as crews were pushed to go too fast in difficult conditions, forcing them to rely too much on radar. Arguments raged about the causes of VLCC tank explosions, and not everyone was convinced about the virtues of inert gas. There were debates, oddly familiar in

today's era of the Triple E and *Costa Concordia* about whether giant ships represented "too many eggs in one basket" and whether salvors had the equipment to haul them off the rocks should the worst happen.
1974 finally saw the wave break, as world trade took a nosedive after the first Arab "oil shock". Owners realised the growth in trade would not fill the huge number of giant ships that had been ordered in expectation of a continued boom. These orders could not be cancelled, and ships were sent off to lay-up before they had even been finished, some not to emerge for years. Anchorages were soon crowded with new tenants, all rafted up against better times. For many, these would never come.
For seafarers, 1974 was the start of a long grim period, with crew cutbacks and also slow steaming doubling the time for a long-haul tanker voyage, as owners tried to come to terms with their fuel bills. Some operators, like Sea-Land, just could not afford the fuel and sold their new ships to the military. Many owners cut their losses and opted for complete engine changes, ripping out their steam turbine plants and replacing them with economical diesels.
Hard-pressed owners put their ships on to "minimum-maintenance" regimes, which in some cases meant no maintenance, storing up terrible troubles for the future when neglected bulk carriers would sink in bad weather, drowning their crews.
But change meant opportunity for some. The OPEC stranglehold on oil prices proved a huge boost to offshore oil and gas, with the North Sea and other areas being more intensively explored. Offshore technology, which employed a lot of seafarers, accelerated.
Into this world *The Sea* was launched. Who would have looked forty years on to 18,000-teu containerships, 100,000-ton heavy lifters and 200,000-ton cruise ships, crewed by a handful of seafarers? However, one thing has not changed: without ships the world would freeze in the dark and its population starve.
Michael Grey. Jan/Feb 2014 edition of *The Sea* published by The Mission to Seafarers. www.missiontoseafarers.org

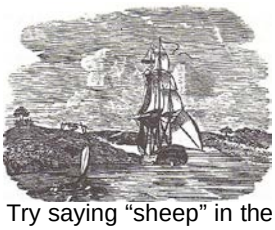
Canada in the Winter of 2013-2014.

This winter has not been kind to anywhere east of the Rockies whereas the west coast has enjoyed mild temperatures and very little snow. Places in between the two coasts suffered ice storms as well as heavy snowfalls. These two pictures, both taken during the winter months, show the differences between west coast and east coast.

West: the beach at White Rock, B.C.

East: a residential street in St. John's, N.L.

Don't spoil the ship for a ha'porth of tar: Nautical wisdom features widely in folklore and as a consequence it has been mistakenly cited as the source of a number of proverbs that actually have their roots in the soil rather than the sea. This saying, which warns against risking something precious for the sake of a small additional investment, is one of them. Since ships could quite conceivably be spoiled through scrimping on the tar used to seal their hulls, a naval origin in very plausible. But this phrase actually comes from farming. Before chemical disinfectants became available to farmers they used tar to seal wounds in their livestock (pigs, sheep, cattle) to prevent them from becoming infected. Try saying "sheep" in the sort of accent a rural Elizabethan peasant might have had and you will see how the confusion arose. Tar was used more on sheep than other animals. ***From "One for Sorrow", a book of "Old-fashioned Lore". ISBN978-1-84317-700-5***



That concludes the February 2014 edition of "From the Bridge". Since I inserted the pictures above, snow has fallen in southwest British Columbia. I have had to use my snow shovel after all.
The next edition of the FTB will be in May. Articles for inclusion should be sent by May 10th to 13375 14A. Avenue, Surrey, B.C. V4A 7P9 or whitknit2@gmail.com. Sincerely, David Whitaker.