SEA TIMES

The Newsletter of the Nautical Professional Education Society of Canada

(Society founded in 1995 by the British Columbia Branch of The Nautical Institute)

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BBC News - The simple steel box that transformed global trade: Perhaps the defining feature of the global economy is precisely that it is global. Toys from China, copper from Chile, T-shirts from Bangladesh, wine from New Zealand, coffee from Ethiopia, and tomatoes from Spain.
Like it or not, globalisation is a fundamental feature of the modern economy.

In the early 1960s, world trade in merchandise was less than 20% of world economic output, or gross domestic product (GDP).
Now, it is around 50% but not everyone is happy about it.
There is probably no other issue where the anxieties of ordinary people are so in conflict with the near-unanimous approval of economists.
Arguments over trade tend to frame globalisation as a policy - maybe even an ideology - fuelled by acronymic trade deals like TRIPS and TTIP.
But perhaps the biggest enabler of globalisation has not been a free trade agreement, but a simple invention: the shipping container.
It is just a corrugated steel box, 8ft (2.4m) wide, 8ft 6in (2.6m) high, and 40ft (12m) long but its impact has been huge.
Consider how a typical trade journey looked before its invention.
In 1954, an unremarkable cargo ship, the *SS Warrior*, carried merchandise from New York to Bremerhaven in Germany.
It held just over 5,000 tonnes of cargo, including food, household goods, letters and vehicles, which were carried as 194,582 separate items in 1,156 different shipments.
Just keeping track of the consignments as they moved around the dockside warehouses was a nightmare.
But the real challenge was physically loading such ships.

Loading by hand: Longshoremen would pile the cargo on to a wooden pallet on the dock.
The pallet would be hoisted in a sling and deposited in the hold.
More longshoremen carted each item into a snug corner of the ship, poking the merchandise with steel hooks until it settled into place against the curves and bulkheads of the hold, skilfully packed so that it would not shift on the high seas.
There were cranes and forklifts but much of the merchandise, from bags of sugar heavier than a man to metal bars the weight of a small car, was shifted with muscle power.
This was dangerous work.
In a large port, someone would be killed every few weeks.
In 1950, New York averaged half a dozen serious incidents every

day, and its port was safer than many.
Researchers studying the *SS Warrior's* trip to Bremerhaven concluded the ship had taken ten days to load and unload, as much time as it had spent crossing the Atlantic.
In today's money, the cargo cost around $420 (£335) a tonne to move.
Given typical delays in sorting and distributing the cargo by land, the whole journey might take three months.
Sixty years ago, then, shipping goods internationally was costly, chancy, and immensely time-consuming.
Surely there had to be a better way?
Vested interests: Indeed there was: put all the cargo into big standard boxes, and move those.
But inventing the box was the easy bit - the shipping container had already been tried in various forms for decades.
The real challenge was overcoming the social obstacles.
To begin with, the trucking companies, shipping companies, and ports could not agree on a standard size.
Some wanted large containers while others wanted smaller versions; perhaps because they specialised in heavy goods or trucked on narrow mountain roads.
Then there were the powerful dockworkers' unions, who resisted the idea.
Yes the containers would make the job of loading ships safer but it would also mean fewer jobs.
US regulators also preferred the status quo.
The sector was tightly bound with red tape, with separate sets of regulations determining how much that shipping and trucking companies could charge.
Why not simply let companies charge whatever the market would bear, or even allow shipping and trucking companies to merge, and put together an integrated service?
Perhaps the bureaucrats too were simply keen to preserve their jobs.
Such bold ideas would have left them with less to do.
Spotting an opportunity: The man who navigated this maze of hazards, and who can fairly be described as the inventor of the modern shipping container system, was called Malcom McLean.
McLean did not know anything about shipping but he was a trucking entrepreneur.
He knew plenty about trucks, plenty about playing the system, and all there was to know about saving money.

As Marc Levinson explains in his book, “The Box”, McLean not only saw the potential of a shipping container that would fit neatly on to a flat bed truck, he also had the skills and the risk-taking attitude needed to make it happen.
First, McLean cheekily exploited a legal loophole to gain control of both a shipping company and a trucking company.
Then, when dockers went on strike, he used the idle time to refit old ships to new container specifications.
He repeatedly plunged into debt.
He took on "fat cat" incumbents in Puerto Rico, revitalising the island's economy by slashing shipping rates to the United States.
He cannily encouraged New York's Port Authority to make the New Jersey side of the harbour a centre for container shipping.
But probably the most striking coup took place in the late 1960s, when Malcom McLean sold the idea of container shipping to perhaps the world's most powerful customer: the US Military.
Impetus of war: Faced with an unholy logistical nightmare in trying to ship equipment to Vietnam, the military turned to McLean's container ships.
Containers work much better when they are part of an integrated logistical system, and the US military was perfectly placed to implement that.
Even better, McLean realised that on the way back from Vietnam, his empty container ships could collect payloads from the world's fastest growing economy, Japan.
And so trans-Pacific trading began in earnest.
A modern shipping port would be unrecognisable to a hardworking longshoreman of the 1950s.

Even a modest container ship might carry 20 times as much cargo as the *SS Warrior* did, yet disgorge its cargo in hours rather than days.
Gigantic cranes weighing 1,000 tonnes apiece lock onto containers which themselves weigh upwards of 30 tonnes, and swing them up and over on to a waiting transporter.
The colossal ballet of engineering is choreographed by computers, which track every container as it moves through a global logistical system.
The refrigerated containers are put in a hull section with power and temperature monitors.
The heavier containers are placed at the bottom to keep the ship's centre of gravity low.

The entire process is scheduled to keep the ship balanced.
And after the crane has released one container onto a waiting transporter, it will grasp another before swinging back over the ship, which is being simultaneously emptied and refilled.
Zero-cost transport? Not everywhere enjoys the benefits of the containerisation revolution.
Many ports in poorer countries still look like New York in the 1950s.
Sub-Saharan Africa, in particular, remains largely cut off from the world economy because of poor infrastructure.
But for an ever-growing number of destinations, goods can now be shipped reliably, swiftly and cheaply.
Rather than the $420 (£335) that a customer would have paid to get the *SS Warrior* to ship a tonne of goods across the Atlantic in 1954, you might now pay less than $50 (£39).
Indeed, economists who study international trade often assume that transport costs are zero.
It keeps the mathematics simpler, they say, and thanks to the shipping container, it is nearly true.
By Tim Harford. "50 Things That Made the Modern Economy, BBC World Service". 9 January 2017
Tim Harford writes the Financial Times' Undercover Economist column. The 50 Things That Made the Modern Economy programme was broadcast on the BBC World Service. You can find more information about its sources and ***listen online*** *or* ***download the programme podcast****.* http://www.bbc.com/news/business-38305512

Designs should consider the shipboard society. **Well considered ship layout could do much to improve crew morale and cohesiveness, and in so doing encourage mental wellbeing among seafarers:** *If you wish to prevent people suffering from mental illness, and are genuinely interested in the mental wellbeing, it might be useful to consider why they are getting into such a state in the first place. You might think that such a statement is self-evident, but all too often it seems it is easier to treat the symptoms than it is to tackle the causes. Whether on board ship or in societies ashore this seems to be the case.*
How often do we hear of contemporary seafarers suffering from loneliness and isolation in their workplaces afloat? A lot more than we did in the past, that's for sure. Now, does that mean that the symptoms are being better recognized by welfare agencies, with the problems being made public rather more often? You might suppose that this is the case, but you might also recognize that, in numerical terms, loneliness and isolation, neither of which promote mental 'wellness', are indeed undeniably features of a great deal of modern seafaring. Arguably, that was not the case in a less frenetic age of ship operation when ships were more generously crewed. Why would you not feel lonely and isolated as just one of a handful of people rattling around in a sizeable ship? You will probably keep watch on your own, maybe eat in a mess room with one or two other shipmates, go to your cabin and, before turning in, watch a film on your own, on your laptop.
This might be just about tolerable if you were all from the same country, spoke the same language and could cheerfully chat to your shipmates about the football results, life in general and what people normally converse about. But the chances are you will be afloat with people who speak a different language and come from a different culture, and the communication will be devoted to what is necessary for work and the odd "pass the salt, please". What chance is there of establishing a workable and pleasant shipboard society in such circumstances?

Back to the drawing board: Ship design doesn't exactly lend itself to a cheerful and cohesive shipboard society. Naval architects are wedded to what we might describe as the 'tower block', either perched on the fo'c'sle (where it serves as a sort of auxiliary breakwater), or at the very stern of the ship, abaft the stern frame, where it will be subject to all manner of vibrations and will oscillate alarmingly in a following sea. Ashore, tower block living has been largely condemned for its effects upon those who have to live in them, so why should a ship be any different, with a couple of cabins on each deck, and the only exercise running up and down the stairs? Even in giant containerships where the accommodation island is nearer the mid-length, the view out of a window will most likely be the back or front end of a container.
Turning back to mental wellbeing, I recently came across a perceptive observation. This appeared in a paper produced by the *Shipowners' P&I Club,* in conjunction with the *International Seafarers' Welfare and Assistance Network,* on the subject of how best mental wellbeing can be maintained. It read, "Many of the remedies for minor problems are in the hands of those who create the conditions under which seafarers work".
Years ago a major Danish company, in association with its marine technology industry and government, designed and built a series of astonishingly hi-tech reefer ships. These were highly automated, with a

phenomenal amount of advanced equipment in them and were designed to operate with a tiny crew, considering the size of the ship. Interestingly, almost as much research and effort went into the living conditions of that small group of people, their mental wellbeing and general welfare, while they were aboard, as went into the design of the vessel. Aware of the effects of isolation and possible loneliness, the designers laid out the bridge with an integrated lounge and office, so that the OOW would not always be on his or her own. That was just one of many welfare considerations.

Today, in a lot of ships, the crew sizes have been reduced to below what many people consider the safe minimum, with a composition that will be predicated entirely on the lowest possible cost, regardless of social mix. This tiny crew will be pitched together and have to get on with the operation of the ship, nothing else being thought important. None of the social studies that prefaced the design of Danish reefer ships will have even been thought about.

You can't really blame designers, who do what they are told, but if they, and those who buy ships and hire crews, thought for even a short time about the realities of the welfare of the crews, what a difference it would make. **Michael Grey.** the**Sea March/April 2017.** www.missiontoseafarers.org

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CMMC to hold One Day Seminar on September 29 2017: In conjunction with the **50th Anniversary of THE COMPANY OF MASTER MARINERS OF CANADA** a number of activities are planned including a one-day seminar on September 29, 2017. As is shown on the following notices, this will take place at the Marine Campus of the British Columbia Institute of Technology (BCIT) in North Vancouver.

Mitigating Risk in Marine Transportation: Are Moratoriums Necessary in the 21st Century?
Presented by the Master Mariners of Canada
at BC Institute of Technology, Marine Campus, North Vancouver BC
Registration is set up at: EventBrite
https://www.eventbrite.ca/o/master-mariners-of-canada-5927511149

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Australia - Free Trade Shouldn't Kill Cabotage: I admit I have been on both sides of cabotage. I have temporarily imported ships to carry cargoes (though only for short periods), imported ships that created new employment opportunities and conversely swore profusely when the government allowed charterers to use imported ships to take away opportunities from the national flag fleet that I managed.

Charterers must compete in an open market, where every other charterer will do everything they can to gain an advantage. How could they do otherwise? That unbridled competition is the thin edge of the wedge, and one thing is for sure, once you start letting cheaper ships in it means the slow decline of the national fleet.

Is national flag shipping more expensive than international ships? Absolutely. But as I used to tell owners of national flag ships that we managed: “your seafarers have to buy houses in the same cities you do, and buy their groceries at the same store and that would be difficult to do on a flag of convenience seafarers wage.”

With a complete lack of cabotage, everyone is back at a level playing field, everybody has cheaper freight and coincidentally the country loses a fleet. What also happens is that all that revenue that used to come into the country for the operation of the ship, the wages and payroll taxes for the crew now leaves the country.

The other thing that happens is that there's no one left that knows about shipping.

This has implications for the shipping industry locally of course but also for the government departments responsible for the administering the shipping industry. It is a rare thing now in Canada to find an experienced Master or Chief Engineer administering the shipping system. There are many bright, well-educated, hard working people, but very few of them have experience in what they're administering.

It’s worth recalling what internationally respected management expert Henry Mintzberg said: "The idea that you can take smart but inexperienced 25-year-olds who never managed anything and turn them into effective managers via two years of classroom training is ludicrous." Some practical knowledge is key; a lot is preferred.

You can of course import expertise. It's a global economy and talent is moved all over the globe, all the time. Finding a qualified individual is a lot easier than finding a suitably experienced individual with the necessary local knowledge. So once you find someone with the right ticket and right non-Australian experience they must then start on a long learning curve.

To come back to the economics, I know the loss of revenue has been quantified, but I don’t believe anyone has quantified the economic cost of losing managerial expertise to administer a core part of any advanced economy. Or of what's lost while your new recruits are learning Australian law and practice?

And when it comes right down to it, if all coastal movements are on Australian ships then isn't the cost the same for everyone? And what really is the incremental cost for Australian ships?

Using an example of a feeder container ship that carries 1,000 containers and makes 26 weekly voyages a year on the coast, (not necessarily a trade that exists but suitable for the purpose) the extra cost of an Australian crew may be approximately $3 million. In a year, that ship moves 26,000 containers (allowing for downtime and one way only) and the average extra cost is $115 per container. If the container held 5,000 pairs of shoes that would be $0.02 per pair of Nikes.

Oh and let's not forget that extra $3 million actually comes back to Australia for wages, payroll taxes etc. This may be broad brush, but it would certainly indicate that you should do the maths before throwing the Australian industry down the gurgler.

Soooo, where am I going with this? The federal government in Australia has sought written submissions to its Coastal Shipping Reforms Discussion Paper. The minister responsible has said: "We need to address a range of administrative issues in the Coastal Trading (Revitalising Australian Shipping) Act 2012, which place unnecessary burdens on shipping companies and the Australian businesses that rely on coastal shipping."

As Liam Neeson in "Love, Actually" said, "I think it's brilliant! I think it's stellar! Uh, apart from the one, obvious, tiny, little baby little hiccup..." That hiccup would be that relieving the "unnecessary burdens" would entail the sacrifice of the employment of Australian seafarers, on Australian ships, carrying Australian goods on the, you guessed it, Australian coast.

The Minister also said, "Currently, 15% of Australia's domestic freight is moved by ship, but with Australia's extensive coastline and broad network of ports, there is the potential for shipping to play a larger role in the national freight task."

Yay! Sounds like boom days are coming for Australian shipping. The International Transport Workers' Federation (ITF), no surprise, offers a different view: "The proposed changes would make it easier for the Minister's Delegate to provide Temporary Licenses to foreign ships and make it more difficult for Australian ships with Australian crew to compete in the coastal trade".

Oops, more bust than boom then.

There has been support for the government's view. Shipping Australia's CEO Rod Nairn said, "It's now time for some sensible bi-partisan changes that will allow international shipping to carry coastal cargo efficiently and sustainably for the benefit of Australian manufacturers, primary producers, and consumers." Stellar stuff, but unfortunately Mr. Nairn represents foreign shipowners in Australia, so he may just be a tad biased, a fact that was left out of most newspaper articles.

I get it, I do. Shippers on the Aussie coast want cheaper freight, which they can see some already have. The large international carriers want access to the coastal trade, so they can charge higher rates and possibly add an additional loaded leg to the voyage. Politicians may want freight transport moved off the roads.

The only people who don't think it's a brilliant idea are those in the diminished Australian shipping industry. Apparently, according to the government, in order to do this large freight task the ships and crews have to come from overseas.

To me the idea that there isn't sufficient capital, initiative and expertise already in Australia to undertake the coastal shipping task is ludicrous. What industry likes, always, is stability. Knowing what the rules are and that they're going to be in place for longer than a dog watch. What coastal shipping in Australia has had for the last couple of decades is reassurance from the government, with winks to people who'd like that industry to disappear. Now the look is the same but the nonsense behind it is rather more blatant.

The government is engaging in doublespeak, pretending that the destruction of Australian jobs and industry is required to make the transportation infrastructure of the country better. The assertion is infuriating and embarrassing. Shame. By **Dermot Loughnane** 2017-04-17.

The Maritime Executive

Dermot Loughnane is CEO of Tactical Marine Solutions

The opinions expressed herein are the author's and not necessarily those of The Maritime Executive.

http://maritime-executive.com/editorials/australia-free-trade-shouldnt-kill-cabotage

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***Torrey Canyon* - 50 years since the day the sea turned black:** In 1967 tens of thousands of seabirds were killed in south west England in one of the world's worst marine pollution incidents.

The *Torrey Canyon* hit the Seven Stones reef between the Isles of Scilly in Cornwall on March 18, 1967, spilling her 120,000-ton cargo of crude oil into the sea.

The incident led to international legislation to protect the marine environment from shipping-related pollution. But the risk remains

The *Torrey Canyon* was the world's first major marine oil pollution incident. A conservative estimate is that the oil and the extremely toxic detergents used in `clean up' attempts killed more than 30,000 birds, mostly guillemots and razorbills. Dead and dying birds were washed up on the coastlines of Cornwall, Guernsey and Brittany over many weeks. More than 12,300 individual bird casualties were recorded, including guillemots, razorbills, puffins, shags, great northern divers, red throated divers, gannets, black-necked grebe, great skua and gulls.

In addition to those killed from the effects of oil pollution, post mortem results from some birds described, " *lungs choked with detergent froth, feathers singed, and in many cases badly blistered legs and beaks*".

Most affected birds died. Other affected marine life included particularly fauna and flora of the intertidal zone, including limpets, sea anemones, sandhoppers, razorshells, mussels, cockles, crabs and seaweed. It was concluded that, had the oil been left to natural processes, rocky shores would have recovered within three years whilst the use of high volumes of undiluted and highly toxic detergents meant environmental recovery took a decade.
http://www.plymouthherald.co.uk/torrey-canyon-50-years-on-from-the-horrifying-environmental-disaster/story-30212602-detail/story.html

The sea was like a bowl of mulligatawny soup and the smell was like opening a tube of glue," says Rodney Terry. "Oil, brown and thick – the crew and the lifeboat were plastered in it."
Rodney is the last living member of the crew of the St Mary's lifeboat, *Guy and Clare Hunter*, that recorded a staggering unbroken 32½ hours standing by the wreck of the massive Liberian-registered oil tanker *Torrey Canyon* wrecked on the Sevenstones 50 years ago today.
Now 81, Rodney is dredging up recollections of that long-ago Saturday that gripped the world's attention. It was an unprecedented maritime pollution crisis, and at the time the costliest-ever shipping disaster.
"I nearly didn't make it," said Rodney. "I was skipper of the off-island launch *Tean* at the time and was collecting end-of-season flower boxes from Bryher and Tresco to put aboard the *Scillonian*, which in those days sailed from St Mary's at 9am. We had just got alongside the ship when the lifeboat rockets went. The lifeboat came off the slip and over to the quay, where it landed a coastguard who had been on board, and picked me up."
His first impression on arriving at the wreck site was the sheer size of the tanker.
"The thing was massive compared to what was generally going around then," he said. "She had been lengthened from 810ft to 974ft. She was listing on her starboard side. The disaster had actually been predicted moments before the vessel struck the Sevenstones. Up at St Mary's airport, Charlie Tresize saw her going by close in and remarked 'if she keeps on this tack she'll end up on the Stones'. And BEA helicopter pilot Captain Summerbee is said to have been the first to alert the authorities of the wreck. When en route to the islands he reported seeing her off the Sevenstones apparently discharging oil."
Rodney says the tanker – with a cargo of 100,000 tons (730,000 barrels) of Kuwaiti crude oil was bound for the refineries at Milford Haven – actually came within a whisker of missing the notorious reef.
"There was 60ft of water on the side away from the one which hit the one rock," he said. "She was that close to having missed it."
The reason for the disaster – or one of them – was the automatic pilot.
"It was new in those days," said Rodney. "There was a lever to disengage the automatic steering to manual. The Captain had done that and gone back into the chart room. The next thing that happened was the man at the wheel was yelling his head off that there was no response from the wheel. It was still on automatic, hadn't been disconnected, and he couldn't alter the course."
Sadly, lessons weren't learned from the *Torrey Canyon* experience. A full 22 years after the disaster, in March 1989, the *Exxon Valdez* was using the same automatic steering system when she struck Bligh Reef in Alaska's Prince William

Sound, spilling 10.8 million gallons of crude oil into the ocean. It is considered to be one of the most devastating human-caused environmental disasters of all time.
Rodney describes the devastating effect of crude oil on anything that comes into contact with it. The lifeboat non-slip tread-mark deck started to curl up at the edges where the oil had melted it or had a reaction with the glue, while the paintwork was going the same way. The vessel was later sent for a total refit.
"The oil was spilling in a massive slick," said Rodney. "After the splashing of the sea, the oiled water was strangely quiet and silent."
More drama came when taking off some 14 or so of the mainly Italian crew from the tanker before transferring them to the Trinity House ship *Stella* that had been standing off. One man was hesitant "as there was a massive rise and fall in the waves", recalls Rodney. "One minute the lifeboat was level, the next 10ft down," he said. "To jump from a big ship into a small one is not the easiest thing to do. We said 'jump' when the lifeboat rose but he jumped as she went down. He went straight into the drink, between the lifeboat and the ship."
There was a real fear he would be crushed between the giant tanker and the lifeboat.
"Luckily, he got away with it," says Rodney. "Someone in the stern grabbed him with a boat hook and got him aboard."
Two incidents stand out vividly in Rodney's memory: the strange movement of the tanker's deck and – bizarrely – onion soup.
"Two or three of us got aboard the tanker, whose deck at the time was difficult to describe. It was 'undulating' with the swell. We couldn't believe it.
"The onion soup episode came via a welcome food delivery from the tug, *Utrecht*. Frankly, we were bored with hanging around, and cold as there was no heating aboard. All we had aboard the lifeboat was emergency stuff – cracker biscuits and tinned bully beef."
After the lifeboat returned to port, following her marathon stint, Rodney says he felt more like going to work than staying home.
"I know it sounds strange but I just couldn't have slept after that," he says.
As it happened, it would be a while before he was able to sleep. Just as he was heading home, the local doctor – who doubled up as lifeboat branch secretary – drew up in his Sunbeam Talbot sports car.
"Jump in," he said. "You're wanted again."
There had been an explosion on the tanker and a doctor was needed.
"You've never been up here before at 60mph, have you?" he asked.
"No," Rodney replied. "And I don't want to."
"Well you're going to," said the medic, as, at a rate of knots, they shot up The Strand to the lifeboat house. The lifeboat launched but got only as far as St Martin's Head when it was learned the casualty – who later died – had been evacuated by helicopter.
And his wasn't the only fatality in the *Torrey Canyon* disaster. The environmental cost of the oil spill was huge. Seabird deaths, mainly around the Cornish coast, were estimated as being at least 75,000. The coastlines of France, Guernsey and Spain were also affected.
Rodney, a lifeboatman for 26 years, went on to become the boat's coxswain, a post he held for six years.
The oil spill was finally dealt with when the Government ordered the wreck to be set on fire. Air strikes involving the Fleet Air Arm and Royal Air Force initially dropped 1,000lb of bombs on the ship, along with cans of jet fuel to fuel the blaze. However, the fire was put out by high seas. Bombing – involving a total of 161 bombs, 16 rockets, 1,500 tons of napalm and 44,500 litres of kerosene – continued until she finally slipped beneath the waves. Attempts to contain the oil using foam-filled booms were largely unsuccessful. An inquiry in Liberia, where the ship was registered, found ship's Master Pastrengo Rugiati was to blame, because he took a shortcut to save time to get to Milford Haven. The *Torrey Canyon* now lies at a depth of 30 metres.
March 18, 2017. Read more at http://www.plymouthherald.co.uk/torrey-canyon-50-years-on-from-the-horrifying-environmental-disaster/story-30212602-detail/story.html#u4FfToF6utwLIvS5.99

An oil spill from Arctic shipping would devastate the environment and cause severe impacts on wildlife and local communities. See: http://www.green4sea.com/infographic-risks-and-challenges-in-responding-to-arctic-oil-spills/

The day the Ship Canal ran dry: We watched the Liner back out of No. 9 Dock with detached interest. Incidentally, reference to a "Liner" within the Port of Manchester, i.e. from Eastham Locks to Trafford Park, can have only one meaning – one of Manchester Liners Ltd., and the city's pride and joy. Inevitably, it seemed, Liners were privileged to take precedence anywhere on the Canal, at any time. Which was why the *Governor* was still laying at the drydock jetty, waiting, although ready to sail for some time, for the *Manchester Courage* to enter and clear Mode Wheel Lock, the lock that led from the dock system to the Ship Canal itself.

The time was 1850 on March 16th 1969, and I was watching the manoeuvre from my dayroom window, while the pilot was keeping a professional eye on things from the wheelhouse above. The breeze was fresh from the east, and the two Canal Company tugs seemed to be having difficulty holding the big ship up to windward as she headed towards the lock. In fact, she was clearly in danger of hitting the bullnose, that end of the lock wall that jutted out into the basin. One would have expected to see the screw churning astern at this crisis, but the dark polluted water under her stern remained still. The silence of the evening was rudely broken by a harsh duet on air and pea-whistles as the pilot urged his tugs to push or pull the ship out of danger, but there was still no movement of the ship's own propeller. It would appear that she had some sort of engine trouble.

At last the tugs had her moving astern, but the ship still continued to fall down to leeward. Professional curiosity turned to alarm as it became apparent that *Manchester Courage* was in grave danger of falling against the *Governor*! I made a hurried exit from my cabin to rouse officers and men to have fenders on hand, ready to cushion the anticipated blow, but they were already on their way. In the wheelhouse I conferred with the pilot who was also showing signs of perturbation. Gradually the tugs won their battle and the ship began to draw away. As her bridge drew level with ours, the two pilots engaged in a lively and colourful conversation, expressing a mutual sense of grievance in pithy terms, and establishing the cause of the delay, which was indeed due to engine trouble. The pilot intended to place the ship alongside Salford Quay, opposite the berth at which the *Governor* was lying while the problem was sorted out. Any notions we may have entertained of slipping into the lock in the meantime were effectively snookered by the Liner's baulky position on Salford Quay. There was nothing for it but to wait patiently for an hour or so until the ship's engineers had completed their task.

When the time came there were no hitches and the Liner passed easily through the lock and into the Barton stretch. *Governor* followed shortly afterwards, entering Mode Wheel Lock at 2115. However, when the ship was secured in the lock, our pilot advised against immediate departure. "We'll wait until we know whether the sonofabitch has cleared the next lock," he growled, his natural caution amplified by recollection of the Liner's antics earlier in the evening. So we stayed until the telephone shrilled in the Lockmaster's office, and he emerged to tell us that, yes, Barton was all clear.

Our lock was lowered and we pressed on through the next section, securing in Barton Lock about 40 minutes later. Our pilot's wariness was not yet mollified however, and the fact that the Liner had not yet cleared the much shorter Barton/Irlam section was in itself a sign that all was not well. So we played the waiting game again, determined to stay in high-level lock until Irlam was reported clear. This Lockmaster was not as co-operative as he might have been, but the pilot could be very obstinate.

It was as well he was; and it must be said that, despite his instinctive fears, no one was more surprised than he to hear some time later that Irlam Locks was far from clear, and unlikely to be so for many weeks to come. The unthinkable had happened. A major disaster had overtaken the *Manchester Courage.* Briefly, she had charged through the lower lock gates, emptied the lock, and was now perched across the sill, wedged in by fallen masonry and other debris. The upper gates had not been closed – there had not been time – and they had been swept away in the rush of water, as the level of the two-mile Barton/Irlam section of the Canal fell 16 feet, and rapidly drained off into the Latchford section. Two Manchester Corporation sludge vessels, both lying at the Corporation's berth serving a Sewage Works, were stranded in the mud, one sustaining some damage.

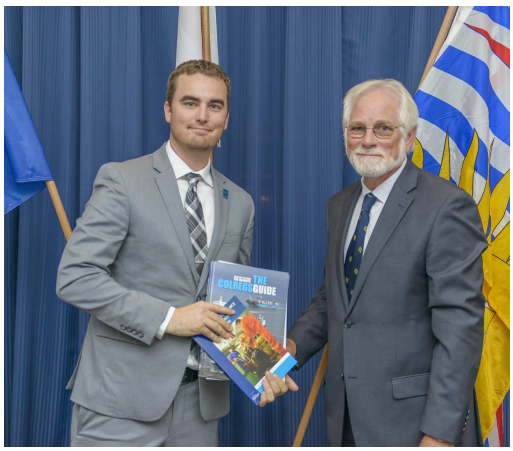
If *Governor* had moved into the next stretch of water on cue she too would have been lying high and dry, listing drunkenly in a noisome bed of Ship Canal and slime. Our pilot's instincts had been vindicated. Although the ship was now marooned in the upper reaches of the Canal, along with 16 other large vessels, she was at least afloat. It was fortunate that Barton lower gates still held firm in spite of the extra pressure.

We learned the cause of the accident later. *Manchester Courage* was equipped with a variable-pitch propeller, a fairly recent innovation at the time. On going astern, the main engine continued to drive in the same direction, while the pitch of the propeller blades (i.e. the angle at which they were set on the boss) was hydraulically reversed, thus reversing the thrust. On this occasion, as the ship eased into Irlam Lock, the pilot ordered "slow astern" to take the way off the ship. The response was not forthcoming so he ordered "half astern", then "full astern", thus compounding the fault, for he had no means of knowing that a valve in the hydraulic system had failed, and the propeller blades remained stubbornly in the "ahead' position.

It was not until March 21st 1969 that tugs were able to tow the *Manchester Courage* clear of the shattered lock and proceed to Gladstone Dock in Liverpool to discharge her export cargo. On the 27th she sailed for Middlesbrough to make good the damage to her hull, and thoroughly overhaul her hydraulic systems. On the same day the debris in the lock was cleared and the small adjacent lock opened for coastal and barge traffic. Meanwhile, work on the main lock went ahead. New gates were installed, and on April 18th 1969, nearly five weeks after the disaster, the Manchester Ship Canal was fully operational once more.

Are you familiar with the Great Lakes? I am not. For a glimpse of the Welland Canal on a time lapse look at https://www.youtube.com/watch?v=U15Fwo9tbJ4

The 2017 BCIT Marine Campus Convocation took place at the BCIT Downtown Campus on July 21st. As has been the case since the graduation of the first class of Nautical Science students in 2003, the Society was there to make book presentations.



Stan Bowles presented books to Junior Officer Brennan Phillips.

David Whitaker presented books to Junior Engineer Alfred Crocker

The graduating class of Nautical Science students included Phoebe Gilday MNI and Sarah Bidner, both winners of the NIBC Second Year Book Awards. On this day Phoebe won the prestigious Oak Maritime Award while Sarah received the BC Ferry and Marine Workers Union Award.

The Nautical Institute BC Branch - Vancouver Transportation Foundation Scholarships

The Vancouver Transportation Foundation provided five scholarships this year. Three of these were for students who are away at sea at this time. The other two were for members of this year's graduating class. Time did not allow for us to make the presentation to these in front of their class, as we usually do, so it was agreed that we could do so during the Convocation Ceremony.

David Whitaker presented cheques to Junior Officers Serguei Koutaitsev and Ali Hassan.

Your Society.

Do you wish to make a financial contribution to the Society? Is it time for you to renew your membership? The Annual Membership Fee remains at **$40.00** but any amount that you can donate will be greatly appreciated.

Please make your cheque payable to the **NPESC** and mail it to: -

Nautical Professional Education Society of Canada,
3648 Glenview Crescent, North Vancouver, B.C. V7R 3E8

Thank you.

Contributions to the NPESC are tax deductible. Charitable Registration # 1039049-20

Nautical Professional Education Society of Canada
Founded by The Nautical Institute of BC

Articles or comments for inclusion in future editions of Seatimes can be sent to me at whitknit@telus.net
Sincerely, David Whitaker FNI

The Nautical Institute
British Columbia Branch

A one-day seminar presented by:

MASTER MARINERS OF CANADA

Friday, September 29, 2017 at the BCIT Marine Campus, North Vancouver BC

MITIGATING RISK IN MARINE TRANSPORTATION: Are moratoriums necessary in the 21st century?

As the lifeblood of the global economy, thousands of ships around the world are safely plying the oceans and waterways on a 24/7/365 basis. Moreover, as a result of intelligent design, development and utilization of enhanced navigational technologies these vessels are able to operate efficiently and safely in very confined and restricted locations.

There are numerous commonly known and practiced approaches to managing risk and uncertainty. While one of these approaches is to totally eliminate the risk by not partaking in the activity, non-participation does not bode well with maritime transportation given the significant role it plays as an enabler in the growth and development of global society.

Current and emerging technologies are helping shape the industrial internet of things and allowing connected ships the provision of real-time, dynamic utilization of vessel operations and maximization of efficiencies. In light of the exponential advancements of technology and availing of best practices, the prevention of safe vessel operations via the enforcement of moratoriums may not be necessary.

Join the Master Mariners of Canada on Friday, 29 September 2017 at the BCIT Marine Campus in North Vancouver, BC to discuss the topic of vessel moratoriums. Confirmed speakers to date include and represent a while range of Canadian industry stakeholders including ship-owners and operators, Transport Canada, pilotage associations, the legal profession, and academia.

If you are interested in presenting and or sponsoring this timely event, please contact Captain James Parsons, PhD at jim.parsons@mi.mun.ca.

Confirmed Speakers:

David Jarrett	Bernard LLP
Will Moreira	Stewart McKelvey
Michael Broad	Shipping Federation of Canada
Phoebe Miles	Transport Canada
Dylan May	Marine Institute
Serge Le Guellec	Transport Desgagnés Inc.
Robert Lewis-Manning	Chamber of Shipping

Sponsors: Shipping Federation of Canada, Saam Smit Towage, Bernard LLP, Chamber of Shipping, BC Shipping News

Registration is set up at:
https://www.eventbrite.ca/o/master-mariners-of-canada-5927511149

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