SEATIMES

The Newsletter of the Nautical Professional Education Society of Canada
(Society founded in 1995 by the British Columbia Branch of The Nautical Institute)

August 2019

This is the story of one voyage of a *Fortune Class* vessel carrying a full load of lumber from ports on Vancouver Island to Japan. The Master of the ship was Captain Ed Monteiro FNI.
Captain Monteiro was the first Chairman of the Nautical Professional Education Society.

m.v. Athol. **Report on Voyage Number 10/5, Episode 3:** At 1620 hours on December 3rd a mountainous wave, at least 40/50 feet high, was sighted approaching from the southwest, four points on the port bow, about a half-mile distant. The mere sight of this wave was staggering and unbelievable. Whosoever saw that wave approaching was certain that the ship would be swamped and that this was the end (even I said my last prayers). Instinctively the helm was put hard over to port to place the wave at two points on that bow. The vessel began to climb this behemoth and continued until half of the ship's length forward was out of the water and she was inclined at a very steep angle. In the chartroom everything smashed to the floor. The crest of the wave finally broke just above the top of the deck cargo at No. 4 hatch and then the ship plummeted downwards with a roll to starboard, burying her head into the next wave. Simultaneously the lashing chains at Nos. 4 & 5 parted with a crack like a pistol shot. The starboard half of the deck cargo slid into the sea. Number four and five U.C.G. booms swung violently to starboard, shearing off the slewing block and its bracket from the No. 4 mast crosstree. The chains went overboard along with the cargo. Corrective action to save the propeller from the chains could not be contemplated because the vessel was now riding the next mountainous wave and the helm had to be fought to prevent the vessel from being broached. Had the vessel not come around to ride this next wave she would certainly have capsized with all hands.

The radio operator was summoned and instructed to send out an XXX (Urgency Message) indicating the vessel's position and requiring other vessels to standby to assist. At 1628 SMT the following message was sent: -

XXX CQ de 5MZN = M.V. ATHOL/5MZN POSITION AT 030600Z 3820N 15712E DECK CARGO OVERBOARD SHIPS IN VICINITY PLEASE STANDBY

In the meantime at 1622 SMT the Master addressed the crew on the P.A. system as follows: -

This is the Captain speaking. We have just lost our deck cargo. We are in danger. All hands will please wear lifejackets and assemble on the boat deck inside the accommodation. Please do not panic.

The ship continued to ride the mountainous waves. One wave came from a slightly different direction and the helm could not respond fast enough. Consequently she pitched and rolled heavily to starboard. This caused the remaining cargo to slide from port to starboard, some of it going overboard. This movement sheared off the already damaged ventilator at No. 5 and also No. 3 ventilator. The roll also caused the cargo overhanging at Nos. 2 & 3 to fall back to the original position. No. 4 U.C.G. boom, which was swinging violently and completely broken, wedged itself in the deck cargo abreast the No. 3 masthouse on the starboard side.

The Master phoned the Engine Room and ordered the First Assistant Engineer, who was on watch, to remain at the controls. In case of emergency he would be informed. The Engineer gladly obeyed.

At 1631 the Urgency Message was re-broadcast and only then was it learned the Main Transmitter power was weak so the R/O quickly changed to the Emergency Transmitter which sent out the message soon afterwards.

At 1657 the message was acknowledged by the m.v. *Jag Asha*/ATBO, in position 41N 157.3E.

At 1700 hours the wind was howling from the West at force 12 and above. The swell was confused with waves about 30 feet high. Visibility was almost nil and the barometer read 985.5 mbs.

As ordered by the Master, all Officers and crew not on duty were assembled, wearing lifejackets, inside the accommodation on the boat deck. There were no visible signs of panic although were afraid and prepared to face death. All hands were joined in prayer as they prayed for survival. They were properly clothed and no one was concerned about their personal belongings. Under the circumstances of course, it would have been almost impossible even to crawl outside. Any person attempting to do so would have been blown overboard. Also, the chances of lowering a lifeboat in those conditions were very slim.

The Chief Mate assisted the Master on the Bridge and attended to the Radio Reports. The Third Mate was in charge of the crew to ensure that all was in readiness. The Second Mate was engaged in communicating with the crew and attending to other duties. Seaman B. Sinha, the best helmsman on board, who had been at the wheel since 1400 hrs, declined to be relieved, even to get his lifejacket. For traditional reasons, neither the Master nor the Mate wore theirs.

(Looking down on the deck from the bridge it was a truly tragic sight. The familiar height of the deck cargo, with its smooth surface, and the catwalk were all gone. No. 4 boom appeared ghastly, bent and twisted and wedged into the cargo at No. 3 masthouse was definitely out of place. We could not help but think about all the work we had done to keep the cargo secure, but now it was lost.)

At 1717 SMT the Urgency Message was sent again on the Main Transmitter. Then a cable was sent to the owners: -

SEVERE STORM NUMBER FOUR FIVE CARGO WASHED OVERBOARD URGENCY MESSAGE ISSUED VESSEL INTACT 030600Z DR POSITION 3820N 15712E = MASTER

In the mean time, No.5 U.C.G. boom, which had swung violently to starboard, remained there possibly due to wind pressure. But with each successive pitch it would bang heavily against the bridge front and other protuberances. At about 1730 hrs the deck crew were called and with great risk and difficulty they managed to pass a line around the topping wires and secure the boom to the starboard wing of the bridge. This probably saved that boom from the same fate as at No. 4.

At 1751 hrs Kushiro Radio replied to our Urgency Message and arranged for rescue ships at once. He was told that rescue ships would not be required. Thereafter he persistently and methodically asked all details pertaining to the cargo, nationality and number of crew, tonnage, ship's behaviour, weather conditions port of destination and departure.

By 1800 hrs the weather began to ease down and at 1830 hrs the Master once again addressed the crew on the P.A. system. "T*his is the Captain speaking. The weather has improved and as you can see, we are still afloat. The situation is well in hand. I thank you all for carrying out my orders without panicking. You may now disperse. A word of advice – 'Say your prayers tonight, keep your cabin door open and your lifejackets handy'. Thank you.*

Soon afterwards the Chief Engineer reported that the Morgan Barkley cathodic protection system was not working. There was a chance the electrodes had been damaged by chains hanging over the side and rubbing against them.

At 1837 SMT the following message was broadcast: -

CQ = MV ATHOL/5MZN QTA XXX AT 030805 GMT SITUATION UNDER CONTROL = MASTER

And at 1849 the following navigational warning was broadcast: -

TTT CQ de 5MZN = MV ATHOL/5MZN DECK CARGO (LUMBER) WASHED OVERBOARD AT 0600Z IN POSITION 38.20N 157.12E SHIPS IN THE VICINITY PLEASE TAKE CARE.

The 0918Z (1948 SMT) weather report extracted as follows: -

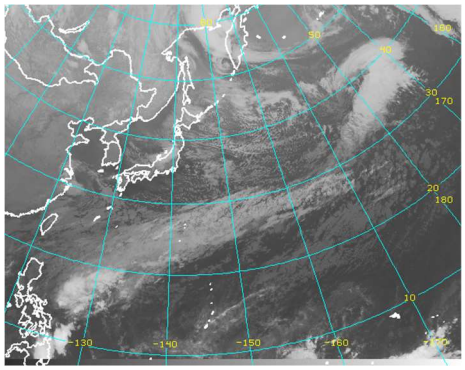
STORM WARNING = DEVELOPED LOW 980 MBS AT FOUR ONE NORTH ONE FIVE SEVEN EAST MOVING NORTHEAST 40 KNOTS WITH OCCLUDED FRONT TO 40N 162E THENCE WARM FRONT TO 31N 174E AND COLD FRONT TO 30N 155E 20N 142E = WINDS 30 TO 50 KNOTS WITHIN 600 MILES IN SOUTHSIDE AND 400 MILES IN NORTHSIDE = FORECAST POSITION FOR 040600Z BETWEEN 46N 176E AND 52N 172W.

Again Kushiro Radio called and solicitously enquired about the condition of the ship, the crew and the weather.

By 2000 hours the wind had reduced to force 10/12 and the swell, though confused, was down to 30 feet. The barometer read 995.0 mbs. Visibility had improved. Due to cargo being lost the ship had a 3° starboard list.

At about 0030 hours on December 4th the following message was sent to the Tokyo agents: -

REGRET INFORM FOUR FIVE DECKCARGO LOST OVERBOARD IN POSITION 3820N 15712E AT 030550Z URGENCY MESSAGE BROADCAST SIMULTANEOUSLY AND CANCELLED AT 030807Z SUBSTANTIAL DAMAGE BUT VESEL TIGHT STOP HOVETO AWAITING IMPROVEMENT WEATHER CONDITIONS DETAILS LATER PLEASE INFORM TRANSMACAN AND OWNERS = MASTER



By 0400 hours the wind had dropped to force 5 from NWxW with a NW swell of 10/12 feet. The barometer had risen to 1012.0 mbs. The Chief Mate called out the deck crew and inspected the gear and hydraulic systems of No. 5 U.C.G. The boom was then lowered to rest on the deck cargo at No.5.

At 0600 a stellar fix gave a position 38° 02'N 157°33'E and the course was now set at 260°(T). The weather report an hour later stated: GALE WARNING = DEVELOPED LOW 988 MBS AT FOUR FOUR NORTH ONE SIX FIVE EAST SEA EAST KURILS MOVING EASTNORTHEAST 35 KNOTS WITH OCCLUDED FRONT FROM 47N 163E TO 46N 170E 42N 172E THENCE WARM FRONT TO 38N 176E 34N 177W AND COLD FRONT TO 44N 165E 25N 152E WINDS 30 TO 45 KNOTS WITHIN 600 MILES IN SOUTHSIDE AND --- MILES IN NORTHSIDE.

At 0830 hours the Master, Mate and First Assistant Engineer inspected the vessel thoroughly to appraise the situation. The Mate and the Engineer each lead a damage control party.
The list was corrected by transferring Fuel Oil from No. 2 Stbd. Double Bottom to No. 5 Port Double Bottom tank.
The expected trim was corrected by filling the After Peak tank with ballast water.
No. 5 U.C.G. Boom was raised and secured to the starboard bridge wind against the rubber stopper using wire slings and chain blocks. The No. 4 U.C.G Boom was secured, in its present position, to the Mast Stays using chains.
No. 3 Exhaust ventilator, which had been sheared off above the trunk level completely, was blanked off with a steel plate cut to size, secured with 'C' clamps and cemented.
No. 5 Exhaust ventilator was inaccessible hence only cement was poured in places where water could enter the hold.
The deck lumber lashing chains at Nos. 2 & 3 were stretched bar taught and the stoppers of the senhouse slips were on the verge of failing. The slightest jolt would have released the turnbuckles with consequent loss of cargo and perhaps further damage. To prevent this from occurring, the loose ends of the chain were secured to the standing parts with a series of half hitches.
The following message was transmitted: -
ICANSHIP TOKYO SITUATION ABOARD RATHER GRIM DETAILS FOLLOW STOP NUMBER ONE TWO THREE DECKCARGO INTACT EXCEPT ABREAST TWO MASTHOUSE PROTRUDING OUTBOARD STOP NUMBER TWO THREE CHAINS BAR TAUT AND SENHOUSE SLIPS VERGE OF SLIPPING STOP NUMBER FOUR FIVE APPROXIMATELY 50 PERCENT CARGO OVERBOARD REST CHAOTIC NO LIKELIHOOD RETAIN STOP NUMBER ONE MAROL AT WINCH CONTROL BROKEN NUMBER THREE SLEWING WINCH BRAKE ACCUMULATOR UNSEATED SAME NUMBER FOUR PIPES BROKEN NUMBER UCG BOOM COMPLETELY BENT AND TWISTED NEEDS RENEWAL PORT MAT SLEWING SHEAVE ADRIFT NUMBER FIVE UCG MINOR DAMAGES SAME RAISED AND SECURED STBD BRIDGE WING NUMBER THREE FIVE EXHAUST VENTS BROKEN NUMBER FOUR FIVE GUARDRAILS AND NUMBER FOUR TANK AIRPIPES ADRIFT STOP 032000Z STELLAR POSITION 3802N 15733E 840 MILES TO GO ETA ON ARRIVAL HEAVY CROSS SWELL PROCEEDING GINGERLY DO NOT WISH TO BREAK ANYMORE EGGS IN BASKET CREW SAFE AND MORALE HIGH ALL SINNERS CONVERTED STOP MY SINCERE APOLOGIES STOP PLEASE COPY TO ALGONQUIN CROYDON TRANSMACAN AND NIPPONMARITIME = MASTER

End of Episode 3; the final will appear in the October 2019 edition of "Seatimes". If you cannot wait, you can read a condensed version of this story in the Master Mariners of Canada newsletter "From the Bridge" February 2019. http://www.mastermariners.ca/from-the-bridge/

What is a Second Officer? Having convinced everyone that he is ready to be certificated again, the Third Officer must leave behind him the carefree life he has been living and become a Second Officer.
Second Officers arrive in a taxi, in a train, on a bus and in a terrible hurry.
A Second Officer is to be found on the bridge, on the telephone, on the poop, on the gyro and on the carpet. He can be looking up, looking in, looking for, looking cut and looking worried. He collects smelly pipes, log lines, ashtrays, engagement rings, bottle openers, pint mugs, chart pencils and has a natural affection for stray dogs. He likes patent medicines, chess, talcum powder, popular classics, clubs, fish and chips, the Radio Officer, The News of the World, the Brown's man, chest expanders, and resigning. He hates being tidy, chart corrections, boatmen, his fiancée's brother, relieving the Third Officer, insurance policies, repairing the gyro and Birkenhead Drydock.
He is Vasco de Gama with Venus on the meridian, Magellan with chart Folio 24 on the chart table, and Lord Kelvin with a stop chronometer in his hand. He is to be seen at breakfast time dashing into the saloon with sleep in his eyes and five minutes to spare, a taste in his mouth and soap in his ears. Who else can sleep with an alarm clock ringing, the steam whistle blowing, his wardrobe door banging, a tap dripping, an empty beer bottle rolling backwards and forwards across his cabin, and stagger up onto the bridge ten minutes late and swear that he wasn't called.
To his mother he is Lord Louis Mountbatten; to his fiancée a born leader of men; and to the Captain a perfect advert for Horlicks.
And when you have had a heavy day on deck in the pouring monsoons, who is it that says to you, "The clocks are beings retarded half an hour on your watch tonight"? The non-eating, non-sleeping, non-playing Second Officer, bless his heart!

Submitted by Captain David Batchelor FNI

BC SHIPPING NEWS

September 2019 issue...The last issue of *BC Shipping News*

Nine years ago, *BC Shipping News* set out with a mandate to give a voice to the commercial marine industry on Canada's West Coast. It's been an amazing journey and we hope you'll agree that we've met that mandate and exceeded expectations in creating awareness about the truly impressive industry we have here in British Columbia. It has been such a privilege to work with so many talented people who call this industry their own.

While we've cherished every moment, the time has come for McIvor Communications Inc. to embark on a new adventure -- to that end, the September issue of BCSN will be our last. (We'll be keeping our website running through to the end of September.)

We've said this before but this time we really mean it -- this really will be our best issue yet! We're committed to going out on a high and we invite you to be a part of it. Featuring a full update on B.C. port activity, our annual look at Canada's West Coast connections to the world and the many aspects that drive this sector has always been one of our most popular issues. **Jane McIvor.**

To read a copy of the July-August 2019 issue of BC Shipping News, go to: -
https://issuu.com/janemci/docs/bcsn-jul19?e=2962115/70810638

Lloyd's of London Plots New Course as Storm Clouds Gather: Lloyd's of London, the world's oldest insurer of seafaring vessels, is facing its own perfect storm.

Old-fashioned business practices, exposure to natural disasters, competition from rival centers and Brexit are all threatening Lloyd's reputation as the place to insure anything from ships to sculptures to soccer stars' legs.

Stung by combined losses of £3 billion ($3.9 billion) over the last two years, John Neal, the new chief executive of an insurance market founded in a London coffee house in 1688, is under growing pressure to drag Lloyd's into the 21st century.

Following a six-month review, Neal will unveil a new strategy expected to include a push to automate arcane processes, a shift away from risky catastrophe insurance, a hard look at the middlemen who drive up the cost of doing business at Lloyd's and ways to attract new sources of capital.

It is also looking to improve inclusion at a time when the culture at Lloyd's is in the spotlight following a report by Bloomberg News about sexual harassment and day-time drinking.

But in a market where shipwrecks are still recorded by some insurers with a quill and paperwork is lugged around Lloyd's futuristic 14-storey building in slipcases, some brokers and underwriters are resisting innovation.

"Lloyd's has to change, it's like an old man dancing – a bit awkward and embarrassing," said one insurance company chief executive, who declined to be named. "We do not have a great track record in modernisation."

All of Lloyd's brokers are meant to shift to an electronic platform by June, but many are complaining about the cost and increased transparency – which risks hurting their fees.

Underwriters are meant to move 50% of their business to the platform by the middle of the year but several are behind, and much of their business has been deemed outside the scope of the automation drive.

"Recent performance has not been acceptable and the work we began last year has placed the market on a much firmer footing," Neal, who joined as CEO in October, told Reuters.

"The focus now turns to the changes we must make to ensure Lloyd's succeeds in the future – by supercharging innovation, simplifying the process for capital to access Lloyd's, automating claims processes, lowering costs by making an electronic exchange, and creating a culture of inclusivity."

Definitely a threat: Lloyd's is not an insurance company in itself but a group of 99 syndicates, or members, who price and underwrite policies and spread the risk among themselves. More than 150 brokers act as middlemen with clients, along with another group of intermediaries known as managing general agents.

Once mostly wealthy individuals, members now include small underwriters and listed firms such as Beazley and Hiscox, as well as global insurers specializing in business lines such as shipping, aviation and property.

The problem for Lloyd's is that while it still has global cachet and a strong A credit rating, investors from hedge funds to private equity firms looking for higher yields are piling into rival centers such as Bermuda, New York and Singapore.
While Lloyd's reputation for specialization and innovation has pushed it to the forefront of new areas such as insurance against hacking, cheaper centres are muscling in on its turf. Bermuda, for example, has developed a specialism in catastrophe bonds and other insurance-linked securities.
"It definitely is a threat and it will happen in a number of areas," said industry veteran Andrew Bathurst, director of PWS Gulf, an insurance broker in London and Dubai. "Lloyd's is aware that overseas underwriters are looking at those classes of business and weighing up whether to underwrite them."
"If we should see some more losses, particularly on the older accounts, then Lloyd's will come under pressure and then there will be more incentive to look outside," said Bathurst, who has been a Lloyd's underwriter and CEO of a Lloyd's broker.

Slow tech: Automating claims processes to cut costs in a market where most business is still done face-to-face is one of the areas highlighted in a Lloyd's leaflet hinting at its new strategy.
Lloyd's has an expense ratio – costs divided by net premiums – of 40%, according to ratings agency AM Best. Sources say this is some 10 points higher than commercial insurers like Germany's Allianz or AIG in the United States.
"The market needs to modernize. It does not make sense to have business placed by paper when we have the technology," said Ian Fantozzi, chief operating officer at Beazley, which manages seven Lloyd's syndicates.
Hiscox has also embraced technological change but Lloyd's has struggled to persuade some underwriters and brokers to adopt an electronic processing platform launched in July 2016.
While some say the system is easy to use, others complain it is unwieldy and creates, rather than reduces, workload.
Former Lloyd's CEO Inga Beale made it compulsory last year for syndicates to shift their business to the platform because underwriters had moved only 10 percent voluntarily.
Underwriters who miss the targets face charges while brokers could be deregistered – a rare event in the market.
For smaller brokers and underwriters, however, the upfront costs of adapting to the system are high. Persuading them to change is like "herding cats," according to one market source.
One senior broker said the system was not ideal because different syndicates work and use it in different ways.
The system is suited to simple, commoditised policies, rather than the complex business with lots of conditions and clauses for which Lloyd's is known, the insurance CEO said.
Smaller brokers are also wary of the increased transparency provided by the system, which would expose their charging structures and could put pressure on their fees, said one City of London source familiar with Lloyd's.
Charles Manchester, chairman of the Managing General Agents' Association, also said there was no great demand from brokers.
Power shift? Despite the inertia, Lloyd's will be reluctant to push too hard by imposing sanctions for non-compliance at such a sensitive time for the industry, which is grappling with lower premiums globally, City of London sources said.
"There is a growing worry that this could compel many brokers to leave," said a second City source familiar with Lloyd's.
"In the past, British banks would insist on using Lloyd's of London to write insurance. That balance of power is shifting and other centres could emerge, such as New York."
The risk to Lloyd's and other insurance companies in London was highlighted in a 2017 report by Boston Consulting Group and industry association London Market Group. It said the market faced competition from emerging markets and Bermuda, Singapore and Switzerland, helped by lower costs of capital and expense.
London's share of global reinsurance premiums fell to 12.3% in 2015, from 13.4% in 2013, and 15% in 2010. Premiums from emerging markets fell to $9.3 billion in 2015 from $10.5 billion in 2013, the report said.
London is still the largest centre for commercial insurance and reinsurance, but Singapore, Bermuda and Switzerland grew by 4%, 1& and 0.6% respectively each year from 2013 to 2015, while London shrank 0.3%, the report said.
Lloyd's is also facing a threat from European competition due to Britain's impending departure from the European Union. Lloyd's has opened a subsidiary in Brussels to cope with Brexit but it operates under a complex structure which some market sources worry will not prove popular.
"Lloyd's of London is beginning to fracture. With the fallout from Brexit, more companies have started to look around the world and ask whether they need to be in London," the second City of London source said.
"Underwriters in France and Germany are now starting to look at writing their business locally," the source said.
 April 26, 2019. By Carolyn Cohn and Jonathan Saul LONDON,
Photo by Anatoly Menzhiliy / Shutterstock. https://gcaptain.com/lloyds-of-london-new-course/

Questioning utility of mega ships - more trouble than they're worth? THE drive to reduce slot costs by building ships of 18,000 TEU and above has produced more costs than savings, and will continue to do so as ships get bigger and become more numerous, reports London's Loadstar

THE drive to reduce slot costs by building ships of 18,000 TEU and above has produced more costs than savings, and will continue to do so as ships get bigger and become more numerous, reports London's Loadstar.

'It's a step too far and leads to an imbalance where you have too few weekly services and too many congestion issues at ports and hinterlands,' said Lars Jensen, chief executive of SeaIntelligence Consulting.

'However, the reality is there's going to be about 150 of them, so of course carriers will use them.'

Mr. Jensen said that if the carriers had stopped at the 14,000 - 15,000-TEU range there would be more efficient networks and more frequent services with higher reliability.

'At that size these ships become very versatile, they can be used on all the deepsea trades, they can be used in the Panama Canal and, increasingly, at a lot of secondary ports,' he said.

Said Drewry's director of ports Neil Davidson, 'The world economy is maturing and slowing, and the era of globalisation has run its course. We're seeing a very significant change to more regionalisation, which is going to affect volumes on the long-haul routes, but also provide opportunities on shorter, intra-regional ones too.'

Container port growth was largely driven by throughput in China over the past 10 years, Mr. Davidson said, but as the Chinese economy matures, so too has its port volumes, leaving the rising 'ASEAN tigers' to pick up the slack. He says the biggest port opportunities now lie in Vietnam, Indonesia and Malaysia.

'This is where the intra-region growth side of the story plays in - it's not just growing volumes for intercontinental, but ASEAN is playing a bigger part in the regionalisation and the huge intra-Asia trade,' said Mr. Davidson.

https://www.seanews.com.tr/questioning-utility-of-mega-ships-more-trouble-than-theyre-worth/182954/

Note: The ship's hull is not "pink". It is "magenta".

Global Warming Effects Presenting a 'Major Challenge' to Carrier Schedules in Asia: Typhoons and other adverse weather events are playing havoc with carrier schedules, presenting a "major challenge" to the industry as it aims to recover from the record low levels of schedule reliability.

According to Jeremy Nixon, chief executive of Ocean Network Express (ONE), global warming has triggered more adverse and variable weather across key shipping lanes: a "remarkable increase" since 2016 when there were just nine major typhoons in Asia, compared with 13 in 2017 and 17 last year.

"Unfortunately, typhoons go straight through the middle of our key shipping lanes," he told the TOC Asia Container Supply Chain conference in Singapore today.

"And they track at a relatively slow pace, so they create disruption to vessels within Asia; but critically, it's also impacting the ports, particularly those in China, Korea and Japan."

So much so, Mr. Nixon noted, that the port of Shanghai was closed for eight days last August, compared with just one in the same month of 2017. There were 28 days of terminal closures between April-August 2018, he added.

"This is major disruption and, previously when there were low terminal utilisation levels, you could catch up relatively quickly in terms of operations. But because now the terminals are working at a much higher occupancy, particularly in Mainland China, the ability to recover is slow, and that has an additional impact."

Elsewhere, recent heavy weather in North America has had a big impact on rail operations, according to Mr. Nixon, while Europe has suffered from flooding and strong weather systems in the Bay of Biscay and in the Atlantic.

Sea-Intelligence Consulting chief executive Alan Murphy said carrier schedule reliability had fallen to record low levels in 2018 – the worst since the analyst began recording reliability data seven years ago.

"Service levels have been very bad, especially on the transpacific trade where two out of three vessels arriving are more than a day late," Mr. Murphy said.

Comparing reliability between the three major carrier alliances, he said in the past THE Alliance had struggled, but now "we're seeing it close that gap because unfortunately the other alliances are going down, rather than THE Alliance going up."
ONE is part of THE Alliance, alongside Hapag-Lloyd and Yang Ming. Mr. Nixon said the group planned to rejig schedules to help mitigate the impact of increased adverse weather and high port utilisation levels in Asia.
"What we're doing now as THE Alliance, as we bring our new product to market in April/May, is to make some changes to the network to build in more buffer time," he explained.
This includes reducing the number of port calls in China on a single loop, since vessels calling at both Shanghai and Ningbo end up queuing for a berth twice when operations at the two major ports are disrupted by typhoons.
To achieve this reduction, Mr. Nixon said THE Alliance would split its Ningbo and Shanghai calls, with some loops calling at fewer ports and others having additional vessels in rotation for "more buffer and recovery".
He added: "But to get back to the days of 90% schedule reliability for the whole industry is really a major challenge, in light of where we are with the terminal occupancy and with the weather these days."
By Sam Whelan in Singapore (The Loadstar) – April 9th 2019
The Loadstar is fast becoming known at the highest levels of logistics and supply chain management as one of the best sources of influential analysis and commentary. https://gcaptain.com/global-warming-effects-shipping-asia/

The Effective Crew Project
- Crewing strategy

The Effective Crew Project, led by Solent University, examines the benefits and challenges associated with the implementation of either a stable or a fluid crewing strategy on board merchant vessels. This three-year project started in April 2017 and is kindly sponsored by the Lloyds Register Foundation and the TK Foundation.
The Effective Crew research develops findings from a pilot study conducted by the same research team and will draw upon best practice from stakeholders within the maritime industry. Data will also be examined from other industries to compare best practice and draw on lessons learnt for the maritime industry to improve safety, welfare and efficiency at sea.
Project objectives: -

- Examine the impact on safety and efficiency of implementing stable or fluid crewing strategies within the Merchant Navy.
- Provide new data in an area where the current information is primarily anecdotal.
- Share best practice from other industries that apply stable and fluid teams.
- Develop a best practice guide on crewing assignment for the shipping industry.
- Develop recommendations for those in the shipping industry instrumental to crew assignment.
- Produce high impact dissemination of the research findings.

The project will ultimately highlight the benefits and limitations of implementing either a fluid or a stable crewing strategy. Drawing on the research findings and best practice from other industries, recommendations will be made on the optimum implementation of these crewing strategies, for the merchant shipping industry.
Further information
The merchant shipping industry is constantly seeking to balance different elements of the crewing equation:

- Safety - increasing evidence of the impact of the human element in safety.
- Cost - crewing is commonly the largest element in vessel operating budget.
- Efficiency - the drive to demonstrate increasing cost-effectiveness in a competitive marketplace.

One of the areas impacting on this equation is how crew are allocated to vessels and how long a senior team works together on the same vessel. Does maintaining a consistent senior team deliver benefits in safety, efficiency and cost?
In the merchant shipping industry there are companies operating a stable crewing strategy where the same senior officers (top four) operate on a back-to-back basis and return to the same vessel for several trips, with all four joining and leaving the vessel at the same time. Other companies operate a fluid system where senior officers are assigned to any appropriate vessel and will sail with different senior officers every trip.
Little literature exists regarding the benefits and challenges of these strategies within the shipping industry. Captain Kuba Szymanski, General Secretary of InterManager says, "We in the shipping industry are full of great examples, but majority of them are all anecdotal and what we are missing is good, hard scientific research which would form a basis for actions".
Evidence from other industries including healthcare, aviation and professional sports suggests the benefits of maintaining stable teams include: improved safety; building team identity; sharing skills; improved efficiency, motivation and morale. These could be of significant value to the shipping

SOLENT UNIVERSITY SOUTHAMPTON

industry, particularly regarding safety performance and seafarers' welfare.
For further information about the project, please contact:
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Telephone: +44 (0)23 8201 6780 Watch the video: https://youtu.be/3Lu8nGKaqMU
https://www.solent.ac.uk/research-innovation-enterprise/rie-at-solent/projects-and-awards/effective-crew-project

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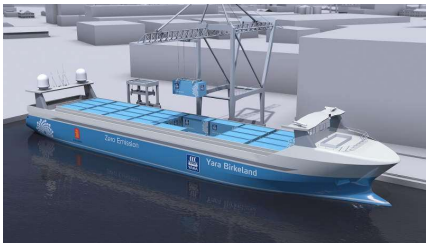
Maritime firms question their future role with robotic ships: AUTONOMOUS shipping is slowly gaining greater attention in the maritime industry with some saying it poses an existential threat to the industry. An increasing number of industry players are beginning to ask how they will fit in with what may be the future of ocean freight. Norwegian fertiliser manufacturer Yara International is a year away from testing and operating a fully autonomous containership, the *Birkeland*, reports New York's FreightWaves.
With just 120 TEU of container capacity, the *Birkeland* is hardly a threat to the container shipping industry. The *Birkeland* will operate between coastal seaports spanning a top distance of only 30 nautical miles. Even then, it is expected to have a crew onboard initially for safety purposes.



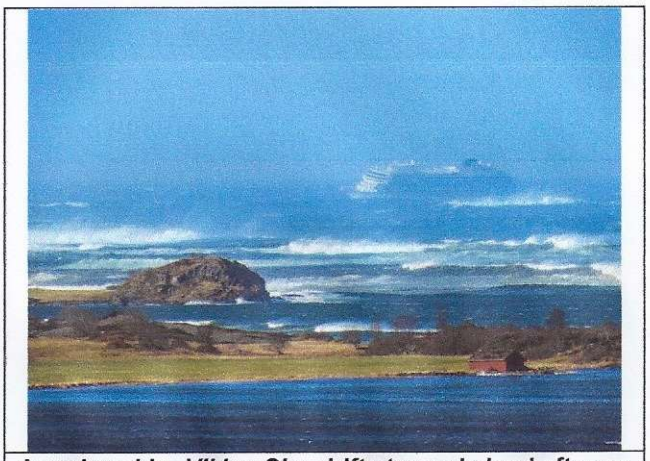
But the development of autonomous shipping does represent a power shift toward cargo owners, who can own and operate their own assets and not rely on third-party fleets.
And the momentum for autonomous shipping is growing. One Sea, a consortium of Scandinavian maritime and technology companies, expects autonomous shipping could be in commercial use by 2025.
One Sea, whose current members include Ericsson, ABB, and Wärtsilä, also ran their own trials of autonomous ships last year. Finland has given the consortium an area off its coast to test autonomous shipping.
The company recently also announced that satellite service provider Inmarsat signed on as a member as well as UK-based Royal Institution of Naval Architects (RINA) and the research subsidiary of Japan's NYK Group.
NYK itself is part of a national consortium that plans to demonstrate an autonomous tugboat in the latter half of 2019. But NYK is also said to be looking at the more ambitious project of an autonomous container ship transiting the Pacific Ocean.
Maritime classification society DNV said it completed a project with marine engineering firm Hoglund and Norwegian ferry operator Fjord1 on developing a remote monitoring and control system for onboard propulsion and systems.
Of course, technology advances faster than regulation. For autonomous shipping to become a real factor in the market, it will have to be regulated through the UN's International Maritime Organisation (IMO). 14 June 2019
https://www.seanews.com.tr/maritime-firms-question-their-future-role-with-robotic-ships/183000

Quadruple Bogeys: In March, during the third round of The Players Championship, I watched Tiger Woods miss two shots in the water on the 17th hole, ultimately making a quadruple bogey. It was a first in his 23-year professional career, including 80 PGA Tour wins (2nd all-time most) and 40 European Tour wins (3rd all-time most). It was a mistake in the magnitude of the first order. My first thought, how can that happen? My second thought? As bad as that was, what he does next will matter more.
No matter how good, professionals make mistakes over a career, even the best. The mistake itself may be bad, but one's actions following will make or break it. In this case, Tiger collected himself and went on to birdie the next hole. The next day, in soggy, cold conditions, he went on to shoot an excellent 3-under 69 round, substantially mitigating the prior day's disaster on the 17th hole. I wonder what his colleagues were thinking as he was making that quadruple bogey. Did they see in his mistake the potential of their own? And what was Tiger thinking? How did he pull himself together and turn it around in front of a national audience and his colleagues, continuing for the entire next day's round?
At the command level in the maritime industry, I have observed a mixed bag regarding those questions. We can be very critical of each other at times. Maybe it's human nature, much easier to see the mistakes in others. Perhaps it's ego-based self-preservation or something in our DNA? Whatever the case, one must guard against self-deception in a business that will have you on the national news following an incident. Like it or not, we need to be professionally accountable, objective and transparent. Individually, always focus first on own job performance and then outward with the goal of bettering the organization and profession.
There are several things in play: -

- We are all capable of making mistakes
- Recognizing the mistake in real time is of paramount importance
- What we do following the mistake may be more critical than the mistake
- Successfully mitigating any serious mistake in this business requires fortitude

- Be at least as observant of your own mistakes as you are of others'
- If you hope for professional empathy (objectivity) after mistakes, then demonstrate it first

From a personal viewpoint, I have been lucky not to make many mistakes over my professional maritime career. I don't lose any sleep at night over piloting challenges I may face, whatever or wherever they may come from. I concentrate on what I can control and don't worry about those things I can't. Still, I have enough mistakes under my belt to give me pause, including a recent mistake that required the bridge team, training and skill to mitigate. I happily exchanged embarrassment for the alternative.



A cruise ship, *Viking Sky*, drifts towards land after an engine failure, Hustadvika, Norway March 23, 2019. Frank Einar Vatne/NTB Scanpix/via REUTERS

We are in the business of moving the largest floating objects on the planet under very demanding, and at times, appalling conditions. Not just once or twice or even a thousand times; every single time, every day, year after year. There is little margin for error and no room for protecting those who don't wish to step up to the professional challenges regarding protecting lands and waters we work within and on.

The best maritime professionals take full responsibility for their actions on the water, there are no excuses. Having said that, we shouldn't be ashamed of our Quadruple Bogeys when taking action to temper a serious situation, as the alternative may result in an accident. We earn our collective keep, to the greater benefit of all, by looking mistakes squarely in the eye and acting to mitigate them. Just like Tiger, facing near disaster, absorbing the mortification, collecting himself and finishing like a professional.

By Captain George Livingstone – April 9, 2019

Captain George Livingstone *is a San Francisco Bar Pilot, co-author of 'Tug Use Offshore', contributing author of 'IMPA On Pilotage' and a regular contributor to gCaptain.* https://gcaptain.com/quadruple-bogeys/

Why are Nike trainers washing up on beaches? Over the past year, from Bermuda and the Bahamas to Ireland and Orkney, hundreds of pairs of unworn shoes have washed up on beaches. But how did they get there, and why are scientists so interested in where they are being found?

In September 2018, on Flores Island, in the remote Atlantic archipelago of the Azores, Gui Ribeiro began noticing strange items washing ashore. At first they appeared in small numbers and could be dismissed as ordinary artefacts lost by individuals - mere flotsam among the churn of man-made waste that inhabits the world's oceans. Soon, though, it became clear these Azorean arrivals were part of a greater group.

Trainers, flip-flops and a selection of other footwear were appearing with a regularity that singled them out from the other tidal deposits. They were the same brands, in the same styles, and, for some of the trainers at least, the same production dates were printed on a label sewn into the tongue of each shoe. Moreover, every item of footwear appeared to have been unworn.

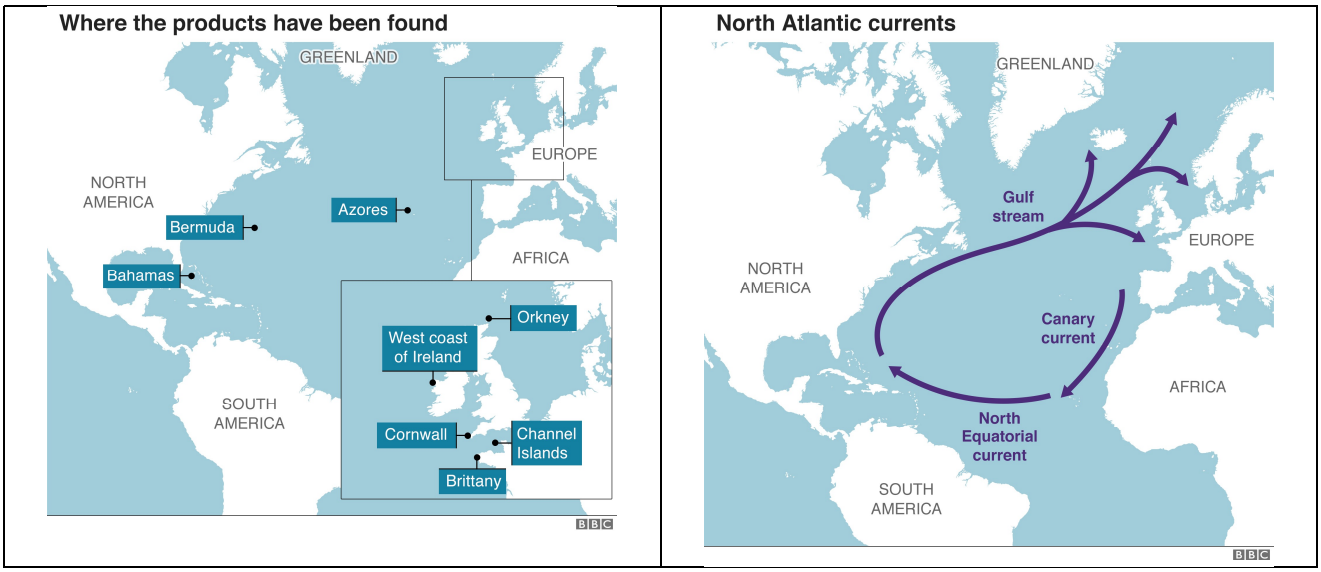
In the months that followed, Mr. Ribeiro retrieved about 60 Nike trainers, along with a host of other brands.

One of the many Nike trainers found on the west coast of Ireland by Liam McNamara, who has found well over 100 shoes. Photo by Liam McNamara

The makers of this 'Triangle' flip-flop, which appears to have had a bite taken out of it, told the BBC they lost products from the *Maersk Shanghai.* Tracey Williams Photo

News of the findings began to spread. Seven months later, and 1,400 miles (2,250km) away in Cornwall, UK, Tracey Williams started noticing a similar trend. "A friend in Ireland asked me if I had found any," says Ms. Williams. "I went out

the next day and found quite a few. "Beach cleaners or beach-combers tend to network, so if a certain item is washing up, we quickly find out about it and we're then on the lookout."
As well as the Azores and southwest England, specimens of this scattered footwear flotilla have so far been found on beaches in Bermuda, the Bahamas, France, Ireland, Orkney and the Channel Islands.



The source of all these shoes is believed to be a single ship. "Through the research I have done," Mr. Ribeiro says, "everything indicates they may have been from some of the 70 to 76 containers that fell overboard from the *Maersk Shanghai*."
In early spring last year, the *Maersk Shanghai* - a 324m (1,063ft) vessel capable of carrying more than 10,000 shipping containers - was travelling from Norfolk, Virginia, down the east coast of the US to Charleston, South Carolina.

On the evening of 3 March - 17 miles from the Oregon Inlet, off the coast of North Carolina - it was caught in a storm. While battling high winds and rough seas, a stack of its cargo-laden containers toppled overboard.
At the time, the maritime trade press reported that aircraft crews sent to locate the missing containers had found nine of them floating, but that seven had later sunk.
It is not possible to say with certainty all the recovered footwear originated from the *Maersk Shanghai* - the vessel's operator Zodiac Maritime did not respond to BBC questions on the matter. Nike also chose not to comment when contacted. However, two footwear brands, Triangle and Great Wolf Lodge, confirmed the examples of their products that had been retrieved did originate from the ship.
And Mr. Ribeiro is not the only beach cleaner to be convinced they came from the *Maersk Shanghai*. Liam McNamara, from County Clare, on the west coast of Ireland, has found "well over 100" shoes - mostly Nike trainers - that in his opinion "most definitely" came from that vessel.
"One company has admitted to losing stock from that shipment and another admitted losing stock at sea," he says. "They've been turning up all over the place."
So what impact can events like this have? "Whatever it is - if it is sinking to the bottom or washing up on beaches - it's going to have a detrimental impact to the marine wildlife," says Lauren Eyles, from the Marine Conservation Society. "The shoes will be breaking down to micro-plastics over years, which will have huge impacts on the amazing wildlife we have both in the UK and worldwide."
Estimates vary, but it is thought about 10 million tonnes of plastic end up in the oceans each year.
Asked how big a role container spills play in that pollution, Ms. Eyles says it is not fully understood. "I don't think there's enough data on it to draw proper conclusions," she explains.
The World Shipping Council estimates that of the 218 million containers transported annually, just over 1,000 go overboard. But one oceanographer, who worked with Nike helping to clear up a spill of its shoes in the early 1990s, believes the real number is likely to be higher.
"It's a number the industry likes to dispute," says Dr. Curtis Ebbesmeyer. "I think it's in the thousands of containers annually. The question really is: what's in them?"
It is at least possible in this case, Dr. Ebbesmeyer says, to estimate the size of the spill. "A container can hold about 10,000 sneakers. So if you say 70 containers multiplied by 10,000, that gives you an upper limit [of 700,000 sneakers] that could be out there."

Despite the environmental damage, scientists can salvage something from such incidents - a better understanding of our oceans and the currents that drive them. While many of the shoes from the *Maersk Shanghai* have been washing up on beaches, far more are likely to be doing laps of the North Atlantic Ocean, stuck in a network of powerful currents.
When and where the shoes appear, Dr. Ebbesmeyer says, can tell us how fast the currents are moving. "If they've gone about halfway around [from North Carolina to the UK] in just over a year, then it takes about three years to go once around the North Atlantic. So that's the typical orbital period of the sneakers, but that hasn't been studied by oceanographers much at all."
Even more enlightening, Dr. Ebbesmeyer says, is how the shape of the shoes seems to dictate where they end up. "The left and the right sneakers float with different orientation to the wind," he explains. "So when the wind blows on them they will go to different places. On some beaches you tend to get the left sneakers and on others you get the right."
Despite the criticism of the commercial shipping industry, Dr. Ebbesmeyer believes it has started to clean up its act. But he says more could be done.
"It takes something like 30, 40, 50 years for the ocean to get rid of this stuff," he says. "I think companies that have spills think we will just forget about it - but it just keeps washing up. So how do we hold companies responsible? Right now there is no accountability."
Part of the problem is that shipping companies only have to report lost containers if they could become a hazard for other vessels or if they include substances deemed "harmful to the marine environment", such as corrosive or toxic chemicals. While the Marine Conservation Society says products like trainers harm marine environments, they do not count as "harmful" for the purpose of reporting cargo lost at sea.
The International Maritime Organization - the UN's shipping regulator - told the BBC it recognised "more needs to be done to identify and report lost containers" and it had "adopted an action plan to address marine plastic litter from ships".
For Ms. Williams, who goes down to clean beaches near her home in Newquay, Cornwall multiple times a day, there is no easy solution. "Nobody wants their goods spread across beaches and polluting the ocean," she says. "But I think it would be good if companies could be more open about cargo spills - if they could put their hands up and say: 'Yes there has been an incident.'"
"These things are going to happen, but there doesn't seem to be any responsibility when they do," Mr. McNamara adds. "The bottom line has to go back to the shipping companies; they're responsible for their cargo."
June 19th 2019. By Hamish Mackay BBC News https://www.bbc.com/news/uk-48464664
* See: https://gcaptain.com/maersk-shanghai-sails-heads-to-the-bahamas-for-salvage-of-collapsed-containers/

(The following, the Chairman's report to this year's Annual General Meeting of the Society. should really appear at the beginning of this Newsletter, being Society business. But I felt I could not displace the continuing saga of the *m.v. Athol.* David).

23rd Annual General Meeting – June 22nd 2019, Brentwood Bay Resort & Spa, Victoria: Chairman's Address

Welcome everybody and thank you for attending today's Annual General Meeting for The Nautical Professional Society of Canada. This is the end of my third year as the chair of the NPESC and I continue to enjoy my involvement with this wonderful group of devoted and focused individuals.
Since our previous AGM in May of 2018, we have managed to achieve a great deal while striving to improve the education of professional mariners in Canada. This is evidenced in our continued financial growth through generous donations made by members, outside individuals and organizations and our ability to increase the number of bursary and book awards that we have made this year. In recognition of these personal donations we were pleased to bestow lifetime membership to Captains David Willows, Harry Allen and Stan Bowles.
For the second year running, we were in receipt of a large donation of $5,000 from the BC Supercargoes Association that went directly to student bursaries. The NPESC truly values the relationship that we have forged with the BC Supercargoes Association and for their continued financial support.
Captain Harry Allen is a long-time member of the Company of Master Mariners of Canada and we were most gratified that he chose the NPESC to donate $1,000 in support of a bursary award. As a result of this we were able to increase the number of bursaries made in 2018 to a total of 6 awards, each of C$1,500.
This year we have published 5 more editions of our publication "Seatimes" with the June edition arriving off the presses just within the last week. As most of you are aware this is a very interesting read and we continue to thank David Whitaker for its quality and his untiring devotion to keeping the presses running and making sure that each edition is published on time. We continue to receive many compliments on the content in this publication.
As I have at each of the last three AGMs, I must take the opportunity to thank all of the members of our Board for their great support this year. The achievements made and work performed by the Society truly are the result of great team work from a group of committed volunteers who invest considerable time and effort in all that we do. For maintaining our records both administrative and financial I pay special thanks to Joachim Ruether our Treasurer. In addition to taking part in meetings, making presentations and sitting on bursary selection committees, this is a task that takes considerable time and effort and it is very much appreciated.

Thanks, must also go to Stan Bowles, David Whitaker, Ivan Oxford, Raman Mangat, Kate Armstrong, Brian Silvester and Terry Stuart be it for their support at meetings, taking part in bursary selection committees, providing quarterly reports to the NIBC or making presentations to award recipients. These things would not happen without your efforts and I want to let you know they are greatly appreciated.

Though we only managed to hold 2 board meetings this year we have achieved a lot. Out of these meetings have come initiatives to explore the possibility of applying for Provincial Gaming Grant Money to help provide more financial support to mariners for their education, reviews and revisions of our by-laws and directors' manual and selections of books to be made available for our annual book awards at Camosun, WMI and BCIT (Golden Stripes – Leadership on the High Seas and Dokmar – Collision Regulations). We also provided a letter of support to Western Marine Institute with respect to their initiative to provide marine education and training to a cohort of 16 new entrant indigenous men and women over a 3.5-year period. The goal of this initiative is to produce competent and certified individuals from Bridge Watch Rating to Master 500GT.

We were very pleased to welcome Kate Armstrong to our bursary selection committee. As one of the first recipients of the CMMC Baugh Fund awards, Kate has first-hand experience of what it takes to be on the receiving end of one of these awards.

The Bursary Selection Committee met in October to consider 11 applications for the 6 NPESC bursaries. 8 applicants were from BCIT, 2 from WMI and one from Camosun. Of these, 7 were from the deck side and 4 from engineering.

As always, the competition for these awards is very tough and the committee has a difficult job in selecting eventual winners. During this process, the applicants are vetted individually by our committee members using a scoring sheet that has been developed over a number of years. Perhaps as a result of the years of careful tweaking that has gone into producing this form or, perhaps as a result of the outstanding quality of our adjudicators it is worth noting that the slate of winners is unanimous. I'll let you decide how this happens!

This year's NPES bursary awards went to: -

Cadet Daniil Viryachev – a second year Engineering Cadet at BCIT who is the latest in a family line of marine engineers stemming from his great grandfather. Both his father and brother continue to serve as marine engineers.

Cadet Alexander Holiove – a second year Engineering Cadet at BCIT who is serving his time with Princess Cruise Lines and has his sights set on becoming a Chief Engineer.

Cadet Havill Leitch – a third year Deck Cadet at BCIT who came from a background with little or no experience on the water and is now a volunteer with the Canadian Lifeboat Institute and serving his time with Groupe Desgagnés whilst aiming to become a Master Mariner.

Cadet Kory McSorley – a second year Deck Cadet at BCIT who grew up in Prince Rupert and plans to be a Master on the BC coast.

Marc Lamont – a First Nations student at Camosun College who is currently a deck hand with BC Ferries. He is attending Camosun to qualify for his Watch Keeping Near Coastal Certificate.

Ryan Karakai – a student at Western Marine Institute who is very involved with sail training for adults and youth. He has served on traditionally rigged sail training vessels around the world and is currently working on a replica 18th century French frigate. He hopes to commend a sail-training vessel one day.

Continuing the tradition of our annual Christmas Lunch, our third such event was held in Port Moody in December and hosted by yours truly and my wife Karen. I suppose that having held three in a row now we can claim that it has officially become an annual event.

As I mentioned earlier, the support from our board members has included a great willingness to attend at student award ceremonies and presentations on behalf of NPESC and during this past year it has been our great pleasure to attend and make the following presentations: -

July 16th – Joachim Ruether and I were in attendance at the BCIT convocation ceremonies to provide book awards to 4th year Nautical Sciences Student William Campbell and 4th year Marine Engineering Student Nicolas Ortega-Carvalhal.

November 7th – Joachim Ruether attended at the BCIT awards ceremonies.

Dec 11th – Ivan Oxford attended at Camosun College to present a book award to Tristan Hedley and also to present Marc Lamont with his NPESC bursary award.

January 25th - Stan Bowles and Joachim Ruether attended at WMI to make book awards to Cody Sutherland and Aaron Farr and also to present Ryan Karakai with his NPESC bursary award. (NB the competition for book awards was so close this year that NPESC decided to award two instead if the usual one).

March 21st – Joachim, David and I were in attendance at BCIT along with a number of other organizations who were making awards to Cadets. Also in attendance were Kate Armstrong making a presentation on behalf of the CMMC Baugh Fund and Raman Mangat making a book presentation on behalf of the NIBC. Joachim, Richard and David made NPESC Bursary awards to Cadets Daniil Viryachev, Alexander Holiove, Havill Leitch and Kory McSorley.

The BCIT Foundation First Year Achievement Award for a Nautical Sciences Cadet was also presented to Cadet Andrew Kachkarov. The recipient of this award is selected by BCIT and the amount awarded consists of funds provided in the form of one cheque from the BCIT Foundation and another (top-up) from the NPESC.

June 20th – Joachim and I attended at BCIT as guests for a Canadian Institute of Marine Engineering (CIMarE) sponsored lunch and presentation ceremony for Engineering Cadets. We were able to make the presentation of The BCIT Foundation First Year Achievement Award for a Marine Engineering Cadet to Cadet Reece Maddison.

Our thanks go out to the staff and students at WMI, Camosun and BCIT for allowing us to break into their busy schedules to make these presentations. Your cooperation and support is very much appreciated and it is our pleasure to work with you.
Thanks too to the BC Branch of the NI for allowing us to share this platform with you for our AGM.
In the coming year we plan to award up to 5 more bursaries, each valued at $1,500. The continued financial support from the BC Supercargoes, our own members and generous personal donations from individuals such as Captain Harry Allen make this all possible even as the interest returns that we see from our fund investments have taken a downturn in the last year.
In closing, I want to assure all of you that our group is committed and passionate about what we do. It is a pleasure to attend at awards and have a chance to speak to the young ladies and gentlemen who are following in our footsteps and to see the impact that our financial support is having on helping to make their dreams of a career at sea a reality whether it be the desire to become a Master or Chief Engineer on a Cruise ship, a Mate on a coastal ferry, tug or fishing boat, a Coastal Pilot or even to command a sail training ship. These young people are undoubtedly the future of our maritime industry and it is my belief that we, as the old guard, have the responsibility to give them whatever assistance and guidance that we can to make their dreams become a reality.
Thank you all once again for your support and I look forward to working with our team once again in the coming year.

Richard Smith, Chair – NPESC. June 22nd, 2019

July 2019 marked the fiftieth anniversary of the *Apollo 11* voyage to the Moon. How did they navigate this great distance? I thought I was quite clever once I got to understand celestial navigation but any course I set at sea was between two fixed locations. The astronauts were travelling between places that were not fixed, they were in motion.

Navigating in Space: To journey across the vast expanses of space, navigators drew on age-old methods and invented new ones. Space navigators drew upon techniques used on the sea and in the air. They also had to invent a new science of space navigation, using star sightings, precise timing, and radio communications. The great distances spacecraft had to travel called for even greater precision in timing and positioning than ever before.

Challenges of Space Navigation: What are the main challenges for space navigators, and how is navigation through space different from navigation in the air or at sea?

Motion: Navigators must keep in mind when planning and executing a space mission that everything is moving. Not just the spacecraft, which may be traveling many thousands of kilometres per hour, but also the destination planet or moon. The Earth is rotating and moving around the Sun.

Distances: Navigators must account for the enormous distances between destinations. If Earth were the size of a softball, the International Space Station would be orbiting just above the seams, the Moon would be a marble about 2 metres away, and Mars would be 1.2 to 2.4 kilometres away. The targets are small and moving.

Communication: Deep space missions are limited in the amount of power available for radio communication to and from Earth. Because spacecraft travel so far from the Sun, they cannot generate as much power from solar panels as Earth satellites can. The radio signals they transmit are very weak and have to be picked out of background noise. The signals may take hours to reach the Earth. So a navigator cannot expect a quick response.

Gravity: The Sun's gravity determines the basic trajectory of an interplanetary spacecraft. But for deep space missions, a navigator also has to take into account gravitational forces from planets and moons and other forces that might affect the trajectory.

https://timeandnavigation.si.edu/navigating-space/challenges

James Lovell looks through the telescope in the Apollo 8 command module. *Credit: National Air and Space Museum, Smithsonian Institution*

In case you know nothing about the Apollo 11 voyage to the Moon, take a look at the following video. Listen to the commentary by Astronaut Michael Collins. If you don't have audio it will help if you can read Dutch: -
https://www.youtube.com/watch?v=uzbquKCqEQY

After receiving the Society Book Award at the BCIT Marine Campus Convocation on July 5th 2019, Stephen Wyatt sent the following message: -

Hello Captain Ruether, Thank you for the book award and the recognition that comes with it.
I will put the ColRegs book to good use.

Thanks again, Stephen Wyatt.
BCIT Nautical Sciences.

BCIT MARINE CAMPUS CONVOCATION

Photos of the presentations for 2019 appear on our website http://npesc.ca/

Your Society.

From an initial deposit of $23,000 in 2001 the Society's Endowment to the Vancouver Foundation has grown to almost $53,000 in 2018. This is the result of periodic additions to the Fund, made possible by generous donations from members, and by the earnings of the Fund. Each year now the Endowment generates about $2,000 that is used for Bursaries.

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

NPES CANADA
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
David Whitaker FNI

The Nautical Institute British Columbia Branch