

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)

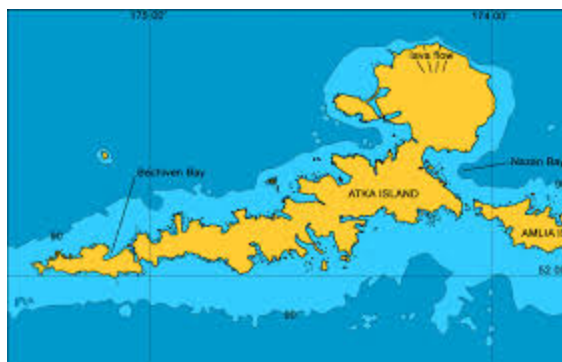


June 2019

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 2:**

It was November 22nd and the ship was approaching Atka Island. Strong southerly winds prevailed and it was assumed that a suitable shelter would not be available at Nazan Bay. So the course was altered for Cape Idalug on Amlia Island. The wind was now much stronger and visibility reduced to about a half mile. The vessel was preparing to enter the bay when they sighted the *Viking*, an American crab-fishing boat, and VHF communications were established. The boat's Skipper advised that Cape Idalug was not suitable and he advised they go to Nazan Bay. Another American fishing boat, the *Seaview*, generously provided a spare large-scale chart of Nazan Bay (U.S.C. & G.S. No. 9010) and with considerable difficulty was able to pass the chart aboard. At 1020HRS the course was again altered for Nazan Bay. The following



cable was received from Vancouver: -
MASTER ATHOL USCG PERMISSION GRANTED YOU ANCHOR ATKA ISLAND AND RESECURE DECK CARGO =
MONAGHAN TRANSMACAN

Two hours later the vessel approached Nazan Bay in poor visibility and strong winds. With the aid of radar and using extreme caution, the vessel anchored at Nazan Bay inner anchorage. The bay is well sheltered from the seas and is a safe anchorage with a good holding ground. However the anchorage is exposed to westerly winds that funnel down the mountainsides. (As a point of interest it was later learned that the *Athol* was the first large vessel to visit the bay since World War Two).

Restowing at No. 1 hatch began early in the afternoon but because of strong winds and continuous rain the work was slow. By 2100 that day the wind had reached gale force and it became difficult and dangerous to lift cargo with the UCG. So it was decided to quit for that night.

At 0600 hrs the next morning an attempt was made to continue the restow but it was still too dangerous. Later that morning another attempt failed because of snow flurries and severe weather. Cables explaining the situation were sent to the Owners, CTCo, Oceanroutes and the US Coast Guard. A cable received from Japan asked for the draft fore and aft when arriving at Kawasaki.

Throughout that afternoon and night the wind persisted at gale force with freezing rain. Bridge watches were maintained and the vessel's position regularly checked.

On November 24th the wind began to abate so at 0430 hrs work resumed. It was necessary to shift cargo from the hatchcover to the wings before restowing it back on the hatchcover. Using a gang of longshoremen this work might not take much time, but lack of proper equipment and expertise made the task more difficult. However, using crowbars and wire ropes the job was completed by mid afternoon. An hour later the chains had been tightened, the boom lowered and at 1710 hrs the vessel weighed anchor and departed Nazan Bay. At 1920, off the northern tip of Atka Island, in position 52° 26'N 174°09'W, the vessel resumed her voyage. A cable for the US Coast Guard said: -
USCOAST GUARD KODIAK RESTOWING OPERATIONS COMPLETED AND SAILED NAZAN BAY 250500Z MANY THANKS
Other messages were sent to the Owners and CTCo showing an ETA Kawasaki for December 2nd.

To Oceanroutes the message read: SAILED NAZANBAY 250500Z INTEND FOLLOW ROUTE RL ATTU GC 4400N 15000E RL INUOBE SAKI PLEASE ADVISE = MASTER

The vessel proceeded to the western end of the Aleutians, Attu Island. The weather in this part of the Bering Sea was slight. A message from San Francisco read: -

MASTER ATHOL EXPECT BRIEF PERIOD HEAVY SOUTHERLIES VICINITY 175E BECOMING WESTERLY UNTIL 160E NORTH 40N CONCUR INTENTIONS = OCEANROUTES



A message from Tokyo read: ADVISE WHETHER REQUIRE SURVEYOR ON ARRIVAL ALSO EXTENT LOSS SO ARRANGE DISCH TALLY WISHING YOU SMOOTHER BALANCE = LANDAHL

The Master's reply was: LANDAHL NIPPONMARITIME TOKYO THANKS YOUR MSG LOSS TO PERSONAL PRIDE AND CONFIDENCE ONLY SAME CANNOT BE SURVEYED STOP NIL CARGO LOB ETA KAWASAKI NOON SECOND = MASTER

That night the vessel crossed the Date Line and the clocks were advanced 24 hours to 0001 hrs on November 27th.

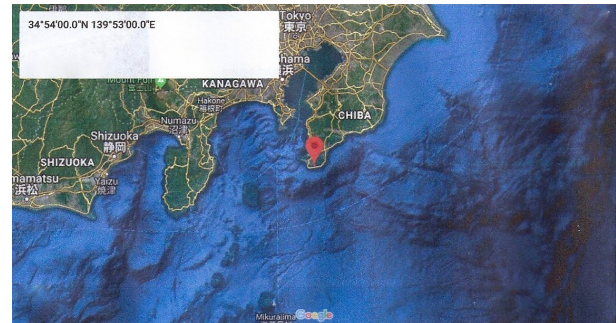
That morning the ship rounded Attu Island and set a

course of 240°(T) for the intended route. Soon they encountered a very heavy southwesterly swell and speed was reduced. Some timbers came loose at No. 1 again. The course was altered and with speed reduced the crew secured these timbers once more. A course of 270°(T) was set because the ship rode well on that course.

At 1600 hrs the wind and swell abated and in DR position 53° 00'N 169°26'E the course was altered to 235°(T) for the intended route.

That night a study of the weather report showed a pair of depressions ahead of the ship. Accordingly, at 2300 hrs, in DR position 52° 05'N 167°25'E the course was altered to 180°(T) to allow room for the depressions to pass. This course was maintained until noon on November 28th in observed position 50° 02'N 167°09'E when it was determined

to head directly for Nojima Saki (right) on course 233°(T). Throughout this day the weather was moderate and the vessel continued at optimum speed, but at 0600 on November 29th the wind freshened and veered to the SW. The swell was confused and it increased in height. At 1000 the course was altered to 180°(T) and the speed reduced. At 1130, in DR position 46° 57'N 160°52'E, the course was changed to 140°(T) and the speed further reduced. By noon the wind was from the west force 8/9 with a predominantly westerly 10 - 12 feet swell.



At 1600 on the 29th, in DR position 46° 21'N 161°40'E, a freak wave about 30 feet high struck the ship from just abaft the starboard beam. The vessel rolled to 36° by the inclinometer and shifted the entire deck cargo over to the port side. Immediately the helm was put hard over to port and the course changed to 110°(T) so that the remaining waves were taken right aft or on the starboard quarter.

It was found that the deck load was now overhanging the portside by about one foot, held on only by the chains. Damage to the No. 5 exhaust vent and the bulwark rails was apparent.

The ship now developed a port list of about 8° so fuel oil and ballast water were transferred to compensate.

The weather deteriorated further and the wind force increased to 9/10. The swell rose to 18 feet. The vessel's speed was reduced and the course altered to discover the most suitable position.

Cables were sent to CTCO. and to the owners with the following details: -

FREAK 30 FOOT WAVE SHIFTED NUMBER FOUR FIVE DECKCARGO OVERHANGING PORTSIDE ABOUT ONE FOOT APPARENT DAMAGE TO HOLD VENTILATOR AND BULWARK RAILS STOP EXPERIENCING VERY HEAVY WEATHER BEST ETA THIRD DECEMBER = MASTER

The vessel continued heading eastwards due to gale force WNW'y winds and a very heavy swell. It was not prudent to strain the vessel and the already shifted cargo by heading into the wind and seas.

On the morning of November 30th a cable was sent to Oceanroutes Tokyo: -

292100Z 4600 16530 NUMBER FOUR FIVE DECKCARGO SHIFTED OVERHANGING PORTSIDE ONE FOOT STOP HEAVY WESTERLIES PERMIT EASTERLY COURSE ONLY PLEASE ADVISE URGENT = MASTER

At 1530 hrs that day, in DR position 45° 35'N 167°40'E, it was finally possible to turn the ship and set a course of 250°(T). The speed was further reduced. An answer came from Oceanroutes: -

MASTER ATHOL EXPECT 45 KNOT WESTERLIES NORTH 45N 30 KNOTS NORTH 36N AND 18 FOOT SWELL EAST 155E NORTH 40N = OCEANROUTES

The vessel continued on her course and from 0800 hrs on December 1st the speed was gradually increased. That morning the Master and Mate thoroughly inspected the deck cargo and then sent this cable to CTCO, Tokyo: -

LANDAHL NIPPONMARITIME TOKYO AFTER CLOSE EXAMINATION SITUATION DECK CARGO FOLLOWING STOP ALL CARGO ABOVE HATCHTOP LEVEL FROM TWO TO FIVE MOVED ATHWART TWO FEET OVERHANGING PORTSIDE ONE

FOOT EXCEPT VICINITY MASTHOUSE STBDSIDE CARGO INTACT BUT PORTSIDE OVERHANGING STOP OVERHANG HOLDING BY CHAINS ONLY STOP NUMBERONE RESTOWED CARGO AGAIN SHIFTED FORWARD HELTER SKELTER SOME LOOSE ON FOCSSLE DECK RESECURED WITH WIRE BEST POSSIBLE STOP PORTSIDE ALONGSIDE SOLID PIER WITHOUT FENDERS PREFERRED CAN ENDEAVOUR BUMP CARGO AGAINST PIER WHEN DOCKING UTILISING TUGS FAILING WHICH NECESSARY UNLASH DISCHARGE SECTIONWISE PREVENT VIOLENT REACTIONS STOP MINOR VESSEL DAMAGES APPARENT NO CARGO LOB AS YET STOP DUE DELICATE CONDITION DECKCARGO AND UNFAVOURABLE WEATHER REGRET UNABLE PROCEED FULL SPEED CERTAINTY OF TOTAL LOSS CANNOT BE OVERLOOKED IF CHAINS PART 010000Z POSITION 4140N 16340E HOPEFUL ETA FIFTH WILL KEEP ADVISED STOP PLEASE RELAY TO TRANSMACAN AND OWNERS REGARDS = CAPTAIN MONTEIRO MASTER

Having studied the weather report it was found that a low just east of Honshu was moving towards the ship. Accordingly at 1500 hrs in DR position 43° 50'N 162°35'E the course was altered to 270°(T) in order to pass north of the depression.

However, prevailing conditions, the risk of the depression altering its heading and a further low developing in China and heading seawards caused another alteration. At 1600 hrs, in position 43° 50'N 162°25'E, the ship altered course to 180°(T). That night the weather conditions improved substantially and speed was gradually increased.

On December 2nd the weather deteriorated again. The 2118Z (0748SMT) weather report from Tokyo indicated the storm: GALE WARNING = DEVELOPING LOW 1008 MBS AT TWO TWO NORTH ONE THREE ONE EAST SOUTH OF MINAMIDITO JIMA MOVING EASTNORTHEAST 20 KNOTS WITH WARM FRONT TO 24N 135E 25N 133E AND COLD FRONT TO 18N 124E = WINDS 30 TO 40 KNOTS EXPECTED WITHIN 500 MILES RADIUS FOR NEXT 24 HOURS.

After the noon sight the course was altered to 255°(T), heading once again for Japan, expecting to pass north of the centre of the low. The following position report was despatched: - OCEANROUTES TOKYO AL144 02 NOON 3948 16404 255 = MASTER.

The weather improved and speed was gradually increased. The 0318Z weather report from Tokyo read: - GALE WARNING = DEVELOPING LOW 1002 MBS AT TWO NINE NORTH ONE FOUR TWO EAST SOUTH OF KANTO MOVING EASTNORTHEAST 40 KNOTS WITH WARM FRONT TO 28N 150E AND COLD FRONT TO 23N 139E WINDS 30 TO 40 KNOTS WITH 400 MILES RADIUS FROM CENTRE AND NEAR FRONTS.

That evening the following cable was despatched: ALGONQUIN CROYDON REQUEST PERMISSION WIFE CHILD JOIN VESSEL DURATION PRESENT STAY JAPAN OWN EXPENSE = MASTER



The weather situation was watched closely that night and, at midnight, with a barometer reading of 1022.0 mbs it was assumed the low would continue as forecast and pass 300 miles south of the vessel. Then, on Dec. 3rd the 2118Z weather report from Tokyo told a different story: - GALE WARNING = DEVELOPING LOW 992 MBS AT THREE SIX NORTH ONE FOUR NINE EAST MOVING NORTHEAST 40 KNOTS WITH WARM FRONT TO 32N 162E AND COLD FRONT TO 30N 148E 19N 137E = WINDS 30 TO 45 KNOTS WITHIN 400 MILES RADIUS FROM CENTRE AND FRONT.

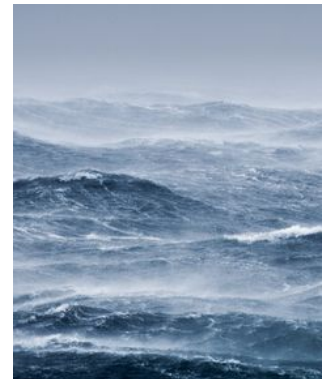
This was the first indication that the low had changed direction. Course was altered to 270°(T) expecting the low would resume ENE direction. The wind direction did not indicate an alteration in the low's direction. Then the barometer began to fall rapidly with a corresponding increase in wind force, and the swell grew larger. Two

timbers were washed overboard. Cables were sent to CTCo agents in Japan plus the following to owners: -

ETA KAWASAKI 0900 SIXTH DRAFT 3109 EK TWO TIMBERS FOCSSLE LOB STOP ARRANGE ADVANCES DOLLARS 10000 YEN 500000 ARRIVAL PROVISIONS PAYABLE ICANSHIP STOP AVOID REPEAT PRESENT MISHAP STRONGLY URGE INSTALL WEATHER FACSIMILE AND OMEGA NAVIGATIONAL SYSTEMS PRIOR SAILING JAPAN CONSIDER ESSENTIAL FOR SAFETY WITH THIS CARGO AND OPERATIONAL AREA REGARDS = MASTER

At noon, in DR position 39° 30'N 158°15'E, the wind was S x E force 9. There was a 10-foot swell from the south. The sky was cloudy with light fog and the barometer had fallen to 986.5 mbs. Soon afterwards the wind force increased and the swell rose. The vessel hove to with engine speed reduced and the course altered to maintain steerage, the wind and sea about two points on the port bow. By 1400 the wind was S x W force 9/10 and the swell S x W 15/18 feet. The barometer read 982.0 mbs. Heavy spray foam on the sea surface reduced the visibility. An attempt was made to turn and run with the wind but the vessel had great difficulty moving from its 'broached' position, even with engines at full power. No sooner did she manage to turn completely, the vessel began to lose steerage and engine power.

The strength of the wind can be demonstrated by the fact the turbo-chargers lost suction and cylinder temperatures shot up immediately. The maximum possible temperatures were overridden under direct orders of the Master and the engines changed over to diesel fuel.



With no steerage and without engine power the vessel would certainly have been lost. So, with great difficulty, she was again put about and she remained hove to in that position with just sufficient power to maintain steerage.

At 1600 the wind had shifted to W x S force 11. The swell was confused but mainly W x S at a height of 30/35 feet. Visibility had deteriorated and the barometer read 982.5 mbs.

The vessel was steered for every individual wave to keep the wind and waves just about 2 points on the port bow. She was pitching heavily and riding the waves gallantly with a slight roll. Spray from the fo'c'sle lashed against the bridge front with blinding force. The Master's previous experience on a similar vessel told him that the ship was built with exceptional strength and was sound.

At 1620 hours a mountainous wave, at least 40/50 feet high, was sighted approaching the vessel from the southwest (four points on the port bow) about a half-mile distant.

End of Episode 2; the next will appear in the August 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 Third Officer? Shortly after an Apprentice has finished his indentures, he rushes off to the DOT examination room and gains for himself a Second Mate's Certificate of Competency. He then becomes what is known as a Third Officer. Third Officers, come in four types; short, medium, long and just plain clumsy.

A Third Officer is Columbus with cough drops in his pocket; Drake with dandruff on his shoulders; Thor Heyerdahl with a lifeboat list in his hand. He can be found spilling ink on the chart, oil on the deck, peas on the table and the "beans".

No one else can be saving so hard for so much from so little; for a Jaguar, a large screen TV, a chicken farm, a wife, seven suits, and a fortnight in Paris.

He likes motorbikes, chorus girls, West End shows, bed, receiving mail, rum and coke, whistling, Shirley Bassey and going ashore.

He hates lifeboats, flags, libraries, 4th engineers, being told to, girl's mothers, ex Meridians, 8 o'clock, coming back from leave, Umm Said and writing home.

Only he can trip up, fall down, crash into, fall out of, wear crepe soled shoes ashore, heavy boots on the bridge, talk politics, take the chartroom pencil, tell the Chief Officer his star sights were wrong, drop the Captain's binoculars and still live.

To his mother he is St. Christopher, to his girl a mathematical genius, to the engineers a telegraph swinger.

And who is it that greets the Second Officer with a smile at midnight, saying, "The log has carried away?" None other than that broad-shouldered scapegoat, that modern Marco Polo - the Third Officer.

Submitted by Captain David Batchelor FNI

(Would you like to be Third Mate again? Watch this video to learn what you have to do: -

The Third Mate: Life at Sea | Seaman Vlog - <https://www.youtube.com/watch?v=zK51hIF4Izw>)

Wings at the Bow Could Smooth Passenger Ship's Ride: For more than 150 years it has been known that placing a wing - or a foil - may be favourable at the bow of a ship. It both reduces the ship's energy consumption and provides increased comfort for passengers on board, but no one has managed to exploit this knowledge in real life.

Until now: In 2021, the shipping company Havila will launch a route between Bergen and Kirkenes, and will build four new environmentally friendly ships for the stretch. This opportunity caught the attention of start-up **Wavefoil** immediately.

"We contacted Havyard Group, who designed the new boats, to hear if they could be interested in using our technology in the new vessels. They thought it was interesting and sent us the drawings of the new ships," said the general manager of Wavefoil, Eirik Bøckmann.

In the last six months there has been rapid progress for Wavefoil. This summer, Havila Group and SINTEF Ocean tested the hulls of the new vessels in the shipbuilding tank in Trondheim. On the bow, the model boat has two foils. The final results after testing are not yet complete.

"But the results look promising and in line with expectations. We expect to achieve fuel savings on the Bergen-Kirkenes route on average four to five%," says Bøckmann. "Another great advantage of the foils is that they dampen the ship's motion and will increase the comfort onboard. Comfort is very important for passengers on the coast, and this in itself can also contribute to increased turnover."

Based on NTNU research: The story of Wavefoil started eight years ago when Bøckmann began researching a wave that could save fuel. In 2015, he completed his PhD on the subject, transferred to a postdoctoral position at

NTNU and became acquainted with a Masters student, Audun Yrke. He came up with the technical solution, for how the wings could become an included part of the ship hull.

"The solution is based on the fact that the wings are folded vertically into the bow. They are in a rail system. When the foils are folded out, they are turned and locked in the correct position," explains Yrke.

Together, Yrke and Bøckmann formed the company Wavefoil, and they attracted support from the investment company Cofounder.

Ambitious goals: Many model trials have shown that the solution works in practice and that it is possible to achieve energy savings up to 20%. Savings must be calculated for each ship and depend on, among other things, the vessel's length, width, draft, speed range, operating profile and type of operations.

Wavefoil has estimated that the foils will withstand up to six metres of significant wave height. If it's over it, fold the foils in. If there is a flat sea, the foils have no function either.

The foil itself is made of a special type of fiberglass, which is stronger than typical fiberglass but still somewhat elastic.

"There is no restriction on the type of vessel and size, but medium-sized passenger and cruise ships, fishing vessels and ferries in exposed waters are most relevant. Our goal is that all new passenger ships in five years will have our foil module installed," says Bøckmann.

The new company has received support from Innovation Norway and NTNU Discovery, among others. Now Wavefoil is ready to produce its first full-scale unit at Delprodukt AS at Kvål in Trøndelag.

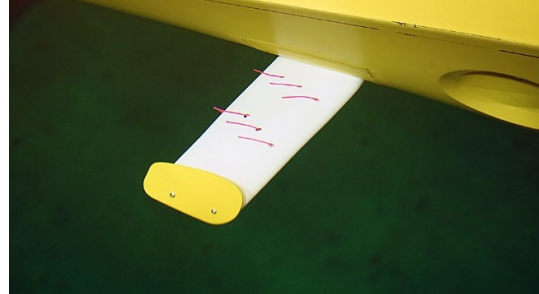
"We have planned production start in September. Initially, it will be a small full-scale unit that is 3.5 metres high. It is suitable for a ship of about 40 metres," says Bøckmann.

On August 24, the company has its own kick-off at NTNU Accel in Trondheim. Here, it has opened the possibility for the general public to buy shares through the folkeinvest finance platform, which is a web platform designed precisely for start-ups to be able to raise capital.

"We are hoping to collect between two and four million kroner, and that many can imagine investing in technology for a more environmentally friendly shipping," says Bøckmann. **BY GEMINI NEWS 2018-08-31**

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

<https://www.maritime-executive.com/editorials/wings-at-the-bow-could-smooth-passenger-ship-s-ride#gs.774UlnU>



Shipping in the school syllabus: How can we convey something of the interest and fascination of ships and shipping to a new generation? How can we make children and young people aware of the contribution that shipping has made, and continues to make, to their lives? These are important questions, and are asked a lot as shipping people worry about how to recruit their own replacements.

Is it possible to persuade educationalists to include something of maritime trade and transport in their various syllabuses? But even in so-called maritime nations, there has been something of a reluctance to do this, not least because for teachers, like anyone else, shipping tends to be below their everyday horizon.

But it could be introduced to quite young children as part of their geography work, as they learn about the interdependence of nations, and where their food and manufactured goods come from. Shipping has a strong environmental message to convey and the younger it is given the better. Shipping is also very "visual" and, properly simplified, something of its amazing technology can be illustrated.

With older children the importance of ships and shipping, command of the seas and the link between sea power and trade can be a strong component in the history syllabus. The voyages of discovery, the search for the North West Passage or the charting of unknown oceans are fascinating tales that more children need to know about. Science curricula could benefit from an "applied" message about ship stability, magnetism and even navigation.

Economics, logistics, the basics of trade are educational messages that ought to have a strong resonance in a global village where there is scarcely a person on earth whose life is untouched by merchant ships. A better understanding of the natural sciences could well be provided by more attention to the seas and oceans, their effects upon the environment and the need to protect them for the benefit of future generations.

There is a need for far more positive thinking in the provision of maritime-related learning materials.

Environmental messages are strong and compelling, and the shipping industry needs to add its weight, to ensure that young people do not receive only negative aspects of ships and shipping.

The shipping world is a fascinating, important, all-encompassing study that, with a little thought, could be exported into the curriculum. The worry is that otherwise, shipping will be completely ignored, or worse, children and young people will believe it to be an industry that has a cavalier attitude towards pollution, and the environment in general and the most famous ship in the world will continue to be that terrible maiden voyage failure - the *Titanic*!

*The above was published by BIMCO in 2009. **Seascapes 02.01.09***



Jack Knox: A tale of two Captains, and a sincere ‘mea culpa’: I screwed up Saturday. Got on my high horse and took a swipe at the Canadian Coast Guard over the description of the New Brunswick woman for whom its new icebreaker, the CCGS *Molly Kool*, was named. It called her the first licensed female ship Captain in Canada.

Pshaww, I said. The first female Master Mariner in Canada was Dorothy Blackmore of Port Alberni, who got her certification in 1937, two years before Kool.

And that got me slapped around the head by a couple of letter-writers who pointed out, rightly, that the term Master Mariner is reserved for those with the highest certification, while Blackmore's papers were for a lesser qualification, that of a tugboat Captain in minor waters. Kool, who earned her certificate in 1939, was a Master Mariner. Blackmore was not. I was sloppy, used the term too loosely.

Ah, but the government of Canada still sailed into dangerous waters, as did news outlets across the country, when in December they referred to Kool as the first female licensed ship Captain. Capt. Jim Ewart of the Vancouver Island Division of the Master Mariners of Canada says anyone granted Master's papers qualifies as a ship Captain. So Blackmore, even with a lesser designation, still deserves to be called the first licensed ship Captain. And her daughter, Sidney's Patricia Currie, has valid reason to keep pushing for her mother's place in history to be recognized.

But really, rather than getting into an unseemly title fight, how about using this as a teachable moment, Ewart says. How about celebrating the accomplishments of both women, and using them as a timely reminder of how space needs to be made in the profession for all.

Note, he says, that the Master Mariners of Canada have just scheduled a fall symposium titled “The Evolution of Equality and Inclusion in the Maritime Profession”. To be held in Ottawa this October, it challenges participants to ask questions like: “What is unconscious bias?” and: “How does it affect our everyday interactions in the workplace?”

The group is also looking for panel participants who can discuss the barriers they faced when introduced to the maritime field and how they overcame them.

Heaven knows both Kool and Blackmore had to overcome obstacles, which, yes, makes the “who's on first” debate seem somewhat petty. To quote the Coast Guard: “Captain Blackmore and Captain Kool have both provided an extraordinary example for women in the maritime world. Their contributions to Canada, in both leadership and courage, are invaluable.”

That's how Currie sees her mother's story. Blackmore had worked for her father's maritime business for six years before earning her Master's papers as a tugboat Captain in 1937. It was a big deal at the time, earning lots of ink from newspapers across North America (even if many of the papers did spend as much time dwelling on her looks as on the breakthrough of Canada getting its first female skipper).



Port Alberni's Dorothy Blackmore was the first woman to become a licensed Ship Captain in Canada.

But Blackmore would not have been the first had a Mrs. J. Hay been awarded her certificate. When she sought her papers in the 1920s, the government turned her down on the basis of her sex. After the Persons Case of 1929 established that women should have equal rights, the wheels of change began turning and it appeared that Hay was going to finally become successful. Unfortunately, she drowned before that could happen.

Meanwhile, Currie accepts that it is right to refer to Kool as the first female Master Mariner, and to celebrate her for that. She's still proud of her mother's place, though.

“She's still the first Master, and that's a very significant achievement,” Currie said Saturday. And she's glad that the Coast Guard has reached out to say it “recognizes the tremendous accomplishments of Captain Blackmore and will be looking for opportunities to share her inspiring story.”

<https://www.timescolonist.com/news/local/jack-knox-a-tale-of-two-captains-and-a-sincere-mea-culpa-1.23790916>

For information about Molly Kool see Page 2 of <http://www.mastermariners.ca/wp-content/uploads/2016/03/FTB-09-051.pdf>

Charity helps Cadets achieve a career at sea: “Coming from a small town, my cadetship allowed me to go further and experience much more than I ever imagined I could.” Rachel Vassallo, 23, from South Shields, is one of the 70 students who have received a Sailors' Society scholarship since 2015 to help achieve a career at sea.

Rachel began her training in September 2015, starting at South Shields Marine School.

“I had only been on one ship before and that was the Shields Ferry,” she said. “Learning about topics such as celestial navigation and ships stability was quite daunting but with training on firefighting, survival and first aid, it was an exciting start to my cadetship.”

Now a qualified Deck Officer of the Watch, she says the cadetship has provided her valuable skills and experience and enabled her to find a job with Princess Cruises.

Rachel joined her first ship, the *STS Lord Nelson*, in 2016. The vessel is designed to be accessible to people of all abilities.

"I learned the basics of being an officer of the watch, and because of the age of the ship, a whole lot about ship maintenance."

After travelling on board from the Canary Islands to Southampton, Rachel joined a couple of ferries. "The Irish Sea was a valuable experience, I feel I learned the most about how to be an officer and was given a far greater amount of responsibility than I ever imagined I would as a cadet. I was trusted to load the main deck and lower holds, take charge of mooring stations and even manoeuvre the ship off the berth under the Captain's supervision."

She then joined a large cargo vessel with a multinational crew. "I saw a great deal of the world, sailing to Brazil, America and Singapore. It was hard getting used to not having any passengers on board."



Although she doesn't speak any Tagalog, that didn't hinder Rachel from engaging with her crewmates. "The crew spent time honing their English skills and even managed to learn a few Geordie phrases."

On returning to South Shields Marine School, she completed her exams and is now looking forward to a career at sea. "My cadetship has been the best experience of my life and I would like to thank Sailors' Society for their financial support and enabling me to start what I hope will be a long and rewarding career," she said.

Source: Sailors' Society

<https://www.hellenicshippingnews.com/charity-helps-cadets-achieve-a-career-at-sea/>

APL and Ship Captain sentenced in seized Singapore Terrex troop carriers case in HK

HONG KONG - More than two years after nine Singapore Armed Forces (SAF) armoured vehicles worth HK\$136.6 million (S\$24 million) were seized in Hong Kong, a court in the territory has imposed fines on both the shipping firm APL and Ship Captain Pan Xuejun for their roles in the case.

The District Court judge ordered APL to pay a fine of HK\$90,000 (S\$15,600), while Pan was fined HK\$9,000 and given a suspended jail term of three months.

Singapore-based APL and Pan were found guilty earlier on Monday (April 29) of importing strategic commodities without the necessary licence.

This came after a two-week trial that began in October.

Both the firm and captain had denied breaching the Import and Export Ordinance, which carries a maximum sentence of a jail term of seven years and an unlimited fine.

In delivering his decision on Monday, Judge Stanley Chan said the firm and the Captain would have known that the containers carried the Terrexes but they failed to notify Hong Kong Customs officials and failed to get the proper licence.

He rejected the defence that the two did not have a clue that the military vehicles were on board the vessel as the receiver was Singapore's Ministry of Defence and the sender, Taiwan. This information would have indicated the nature of the cargo.

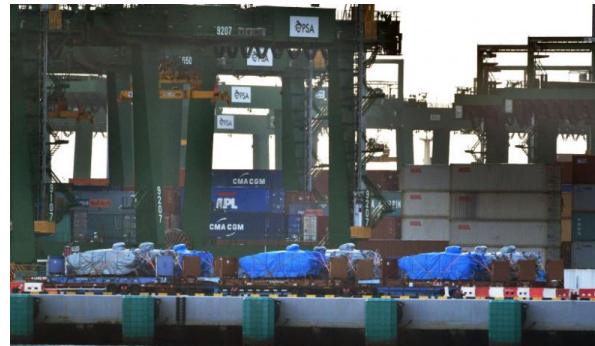
Local media reported that the judge said the military vehicles "could not be stored in a normal container, but a flat rack container". And although a large canvas covered the vehicles, "the tyres could still be seen which could not be covered entirely", so someone would have seen them.

Pan, a Chinese national, was the Captain of the APL vessel that was transporting the nine Singapore-made Terrex troop carriers back to Singapore after a military exercise in Taiwan in November 2016.

The ship, *APL Qatar*, docked at Terminal 8 of Kwai Chung Container Port at 8.32am on Nov 23, 2016.

The court was told that Hong Kong customs officials checked their database, but the shipment documentation failed to mention that the containers housed the military vehicles, considered "strategic commodities". APL staff were later questioned, and the firm produced a document that described the goods inside the containers as "vehicles".

In Hong Kong, "strategic commodities" must have a licence to be imported, issued by the city's director-general of trade and industry, which APL and Pan did not have.



This resulted in Hong Kong officials impounding the Terrex vehicles. They were impounded at the River Trade Terminal in Tuen Mun and returned to the Singapore Government on January 26, 2017 after investigations wrapped up. April 29th 2019 <https://www.straitstimes.com/asia/east-asia/hong-kong-court-says-shiping-firm-captain-guilty-over-seizure-of-singapore-saf>

Keeping watch - The work of a B.C. lightkeeper is solitary, unique and vitally important - and the Canadian Coast Guard is looking for more of them: At 51 metres above sea level, the tower at Cape Beale Lighthouse offers

a panoramic view of Pacific Ocean waves as they break over black craggy rocks on the west coast of Vancouver Island.

For more than a decade, principal keeper Karen Zacharuk has watched for trouble amid the remote beauty of this frothing stretch of reef just south of Ucluelet. "It's very treacherous waters. I mean, that is why we are here," the 43-year-old said, standing on the walkway that surrounds the lantern room at the top of the tower. "Every few years, there is an issue with vessels capsizing near the reef."

The watch from this light station has carried on uninterrupted for 145 years.

Cape Beale is the oldest of 27-staffed lighthouses on the B.C. coast. The keepers live on site to maintain the buildings and equipment, provide weather and sea state information and monitor for emergency situations.

"There has always been someone looking out, watching out, every day," Zacharuk said.



The waters off Cape Beale are among the most dangerous on the B.C. coast:

<http://www.cbc.ca/player/play/1516473923862/>

The steady watch from Canadian light stations almost came to an end on the East and West coasts nine years ago, when lightkeeper positions were **nearly eliminated entirely** during a push for automation.

Following public pushback over the impact on maritime safety, the federal government agreed there was no substitute for having human eyes the water. It changed course and opted to keep the positions.

But in the years that followed, the ranks of lightkeepers in B.C. thinned nonetheless, due to retirements and attrition.

Last fall, the union that represents keepers went public with **concerns that the staffing shortage had become critical**. The Union of Canadian Transportation Employees sounded the alarm because more than a dozen of the 54 permanent keeper positions in B.C. were vacant, the relief pool meant to fill staffing gaps was nearly empty and permanent keepers were struggling to take vacation leave.

The situation called into question whether staffing light stations was still a priority.

But the Canadian Coast Guard maintained there were no plans to get rid of keeper positions. In the months that followed, it responded by recruiting new people to take up this unique profession, said Berry Tchir, regional vice-president for the Pacific region of the Union of Canadian Transportation Employees.

"Things are looking up. All our stations are actively filled with [contract workers] or casuals and they are still recruiting," he said. "Hopefully, they stay the course and keep hiring."

Zacharuk explains how the light works at Cape Beale: <http://www.cbc.ca/player/play/1516473923770/>

Zacharuk used to live on a sailboat, so she had some experience with an off-the-grid lifestyle when she decided to take a chance on the job 18 years ago and moved to her first lighthouse with her husband, who has found work at Coast Guard stations, which are often located nearby.

"I didn't know anybody from a light station. I had never met a lightkeeper before," Zacharuk said. Nearly two decades after her first job at a lighthouse, she has no regrets.

"I just fell in love with it," she said. "You are just so closely connected with nature. The weather and tides determine what you are going to do for the day."

Having eyes on the churning waters off Cape Beale has led to a number of dramatic rescues over the years. In one case a few years ago, a boat with several people aboard capsized near the reef in thick fog. The crew was not able to get a distress call off.

"If the lightkeeper hadn't heard them, they likely wouldn't have survived," Zacharuk said. The damaged boat still sits on a beach near the lighthouse, a visual reminder that the ocean can turn dangerous in an instant.

By lighthouse standards, Cape Beale is not that remote. It can be accessed by boat, when tides and sea conditions permit. In a pinch, a rugged seven-kilometre trail connects to the remote village of Bamfield. There is also cell service and an internet connection.

Some B.C. light stations are helicopter access only, have no cell service and only limited internet connectivity. Instead, keepers rely on a decades-old radiophone technology to communicate. Some are also located in spots known for driving rain and gale-force winds.

Karen Zacharuk provides a first-hand account of the weather to a Coast Guard communications centre:

<http://www.cbc.ca/player/play/1516478019751/>

Each remote lighthouse has a principal keeper and an assistant keeper. They take shifts monitoring VHF radio channels for distress calls 24 hours a day. Other duties include the more mundane — everything from repairing lawn mower engines to washing the windows of the iconic red and white keeper houses.

While it's possible to get to town from Cape Beale, there's no leaving on a whim, Zacharuk said.

"This job isn't for everybody. You really have to be comfortable with your own company."

By Megan Thomas. May 5, 2019. <https://newsinteractives.cbc.ca/longform/lighthouse-keeper-bc-cape-beale>

Food and fitness – a healthy and happy crew: Life at sea is challenging and most seafarers spend more time onboard than at home. One of the keys to a long career at sea is to ensure a healthy lifestyle and to reduce the risk for lifestyle diseases. How can this be achieved?

Tasty, good and nutritious food is welfare but unfortunately such food might be more expensive compared to more greasy food, and the managers might not be eager to increase the victualing budget. One solution is to work closer with the food suppliers or the sea catering services being used. Many of them provide services such as training for the chief cooks, setting up suggestions for weekly menus and they will also help to ensure a good inventory control. A good inventory control will lead to less food waste, which is good for the environment and it gives more value out of the victualing budget.

Some of the benefits of healthy food onboard

- Controls weight
- Flag states might have different BMI requirements
- Reduces fatigue
- Reduced risk for diseases
- Risk of heart disease and stroke will be reduced when the cholesterol and blood pressure are within a safe range
- Risk of diabetes will be reduced
- Increases life expectancy
- Better mood

Besides having focus on the food, the managers will benefit from motivating their seafarers to conduct physical exercise onboard. Sports onboard is not only good for the physical health but it is fun, it is social and it can also be a teambuilding effort.

Some of the benefits of physical exercises onboard

- Physically and mentally stronger
- Less stressed
- More balanced
- Better sleep
- Better digestion
- Stabilising blood sugar
- Gives self-confidence

Ship managers who facilitate for tasty, healthy and nutritious food onboard as well as physical activities will benefit from this. A healthy and fit seafarer is a safe and happy seafarer.

Source: Skuld. November 2018. <https://www.hellenicshippingnews.com/food-and-fitness-a-healthy-and-happy-crew/>



Windows to the World

The Human Eye: Seafarers are often told that the most important piece of equipment on the bridge is their own eyes. Like any piece of technology you can only get the best use of your eyes if you know something about how they work – and how to deal with their strengths and weaknesses. The sense we most rely on is sight. Approximately 80% of the information received by the brain is through our eyes and if there is ambiguity between the senses, the information collected by the eyes takes precedence.

Our eyes are spherical in shape with a window-like structure that admits light into the eye while protecting it from outside elements. The retina at the back receives admitted light and converts it into electrical signals that are carried to the brain via the optic nerve.

Behind the cornea is the iris. This is the coloured part of the eye that controls the amount of light admitted into the eye, via the lens, by changing its shape and thereby adjusting the size of the pupil or aperture. The

lens is flexible and changes its shape to ensure correct focus of objects seen on the retina. Light sensitive cells known as rods and cones cover the surface of retina. Cones sit behind the lens in the macula or fovea region of the retina and are responsible for colour vision and work in bright lights. The fovea region is the most sensitive area of the retina. Rods work well in dim light, are concentrated in the outer area of the retina and help with peripheral and night vision. Contained with the rods is rhodopsin (visual purple), a compound that helps the retina adapt to night vision. It typically takes about 30 to 45 minutes to reach its full concentration and can be broken down when struck by a bright light or glare. Beyond the fovea region is the junction of the optic nerve, which forms the blind spot.

Limitations of the eye:

Night vision. Since it takes about 30 to 45 minutes for rhodopsin to reach its full density, at least 30 minutes should be allowed to ensure good night vision. Bright lights should be avoided before and during nighttime watches. Fully dimmable lights should be the norm on a vessel's bridge; some experts suggest red light for bridge lighting and flashlights. The instrument panel and displays should be switched over to night mode and their brightness adjusted to ensure optimal night vision – just bright enough to read the instruments clearly. One method that can help regain night vision when faced with unavoidable glare or bright lights is to close one eye.

During the day, excessive exposure to sunlight and glare should be avoided, as it increases the recovery time of rhodopsin to hours or even days. In fact, prolonged exposure to glare or the sun without proper eye protection can permanently damage the eyes. Wear good quality sunglasses (100% UV protection) to avoid glare and to protect the eyes against long-term permanent damage.

If you are on lookout duty, looking at an object directly is unhelpful because there are no rods in the centre of the retina. Motion is needed to attract our attention (especially at night) so lookouts must keep moving their eyes. This helps apparently stationary objects and avoids the image falling into an area with minimal rods or the blind spot.

Empty field myopia. When the environment is relatively unchanging and the eye has nothing to focus on, the lens takes up a position of rest. This can happen during very dark nights, in open seas and in hazy weather conditions. The focal distance under these circumstances is between 80cm and a few metres, and the lookout may well be staring out and seeing nothing. This phenomenon is similar to when a digital camera covers its lens after a few minutes of inactivity.

Narrow field of vision. Though our eyes can usually accept light from an arc of nearly 200°, the field of vision to focus on a target is narrow – only 10 to 15°. We can perceive movement at the periphery, but cannot identify it. This can become tunnel vision.

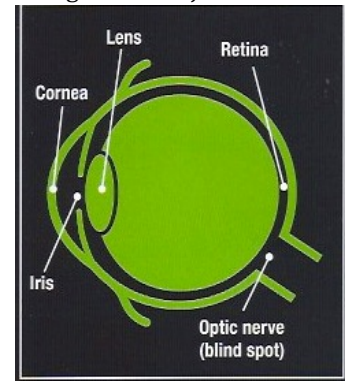
Judging distance and blending into the background. A target that contrasts against the background, is apparently moving and is not in a glare is easier to see than a target in poor contrast, is apparently stationary and its in glaring light. The absence of a background, context or reference point also makes it difficult for lookouts to judge distance. At night, lookouts must judge distance by size and brightness alone and this can be dangerous.

Perception and over-estimation of visual ability:

The mind can play tricks on lookouts so that what they think they are seeing is different from reality. A faint white light with an occasionally sighted red light, fine on the starboard bow, could be perceived as a large vessel crossing at distance from starboard to port. In reality, it may be a small fishing vessel coming very close to the lookout's own vessel.

Scanning the horizon:

Considering all these vision limitations, there is no point in simply staring out into the open ocean or skimming the eyes across the ocean. Instead, lookouts should focus frequently on a distant object and then scan the horizon in blocks of about 15°. Observe each block for at least one second to detect objects. The distant object could be celestial, terrestrial or on the vessel itself – for example, the back scatter of the



Want to know more?

This article is taken from The Nautical Institute's book *Human Performance and Limitation for Mariners*, which aims to help seafarers understand their own limitations and abilities and build competency and confidence. Find it at www.nautinst.org/shop.

CHIRP Maritime has produced a fascinating – and free! – video on the working of the human eye and how to keep a better lookout. *Vision and Decision* can be found on YouTube at <https://tinyurl.com/VisionDecision>.

foremast light. Given that the movement of the eyeballs alone is ineffective, it is best to move the head continually to scan the periphery and create a complete picture at all times.

At night, vision is improved by looking slightly to one side of the object in focus. In addition to these visual scanning techniques, it is important to acquire the best situational awareness possible.

From "The Navigator" October 2018. A free publication of The Nautical Institute.

Super sniffer drones: Teams of drones are about to start policing the skies of some of the world's busiest shipping ports. Their target? Environmental rule-breakers.

It might sound — and look — like something out of a Marvel Avengers movie, but for many ports around the world, these so-called sniffer drones are the best way to enforce new regulations aimed at cutting the air pollution caused by ships.

Regulators are bracing for rules that are meant to lower shipping's emissions of sulphur oxides, pollutants blamed for acid rain and aggravating human health conditions like asthma. Because the regulations, which start Jan. 1, will require most of the world's ships to burn more expensive fuels, there's been speculation some owners may try to cheat to drive down what is their single biggest cost. And that's where the drones come in.

Super Sniffers: In the Netherlands, home to Europe's largest port, [preparations are underway](#) to use a large, unmanned flying vehicle capable of traveling well over 10 miles from the shore to detect emissions from ships. The local enforcement authority calls it a 'super drone.'

In Hong Kong, where rule breakers face large fines and up to [six months in prison](#), similar — albeit smaller — machines are currently being tested for the same purpose. Maritime authorities in Denmark and Norway have also already started using the technology.

Authorities can use drones to effectively filter through the tens of thousands of vessels coming in and out of their ports. Knowing in advance if a ship is burning non-compliant fuel means they can target the right carrier for a manual inspection.

In Hong Kong and Shenzhen — where hundreds of ships are currently randomly selected for spot-checks — authorities are working with academics on using drones, said Professor Zhi Ning from the Hong Kong University of Science and Technology.

The unmanned vehicles will fly into plumes of smoke created by vessels, collecting real-time data that is then used to calculate how much sulphur is in the ship's fuel. The university is field-testing its technology this month and will send staff on boat trips around Hong Kong, whose name means Fragrant Harbour.

Quick Work: "It takes only two to three minutes for us to finish one scanning of the plume of one ship," said Ning.

"We hope to have this joint effort between Hong Kong and Shenzhen for the Greater Bay area. In the end, the air pollution doesn't have any boundaries — it just flows around."

In the Netherlands, where the marine fuel sulphur limit is already set at 0.1%, there are plans for unmanned aircraft to start being used for emissions testing in the second half of this year.

The local enforcement authority — the Inspectie Leefomgeving en Transport known as ILT — is also awaiting approval to start using a so-called super drone capable of analyzing the emissions of ships that are much further out to sea, with testing starting by the beginning of next year when the IMO rules kick in. That's all in addition to Rotterdam's "sniffer pole," a fixed installation at the port's entrance that tests the fumes of all passing vessels.

Drones are cost-effective and will make enforcement much more efficient, said Marco Buitelaar, program manager for clean vessels at the ILT.

Pinpoint Cheats: While the data the drones collect can't be used in a criminal court case, Buitelaar plans to use their findings to pinpoint which vessels' fuel tanks to get physical samples from. His team is serious about enforcing the IMO's rules and is aiming for full compliance. As of April, the public prosecutor was investigating four ships for exceeding the existing sulphur limit, according to Buitelaar.

"Drones are not the end of law enforcement," said Ning. "After we scan the ships, our government can then take the fuel samples from these targets to use in court as physical evidence. The plume is gone after we finish taking the measurement, so it can't be used."

The shipping industry is likely to comply with IMO emission regulations, especially major companies that wouldn't be able to escape the risk to their reputations from cheating, according to Richard Chatterton, an analyst with Bloomberg NEF in Singapore.



International Waters: While using the drones could help spot cheats near coastal areas, it won't necessarily help to catch them in international waters, often hundreds of miles from land — especially if vessels that are supposed to be using scrubbers to eliminate sulphur emissions choose to switch off the equipment.

"It would be really expensive to be flying these drones out into international waters left, right and centre," said Chatterton. "Flag states are responsible for enforcing pollution regulations, but why would anybody pay that money?" Back closer to land, other ports continue to take enforcement seriously. Last year, Norway's maritime authority uncovered at least five violations of sulphur regulations and started using drones. Denmark launched its own for the same purpose in April. In Singapore, the world's largest bunkering port, rule-breakers risk jail terms of up to two years. © 2019 Bloomberg L.P. By Jack Wittels and Ann Koh (Bloomberg) — Photo: Igor Grochev / Shutterstock <https://gcaptain.com/super-sniffer-drones-and-jail-regulators-get-tough-on-shipping/> May 22nd 2019

THE GREAT PACIFIC GARBAGE PATCH IS THE LARGEST ACCUMULATION OF OCEAN PLASTIC AND HUMAN-MADE DEBRIS IN THE WORLD. It covers a surface area twice the size of Texas, and contains up to an estimated 3.6 trillion pieces. But did you know it's not actually a "patch"? Or how about the fact that garbage is accumulating in five distinct areas of our oceans? And did you know that your laundry is likely contributing to the problem?

Visit the **Maritime Museum of BC** to learn more about marine debris and plastic in our oceans, including why it exists and how it continues to grow. You'll also learn about the efforts from people around the world who are working to better the situation, and even how you can make small changes in your daily life that can contribute to big changes for our oceans.

[Maritime Museum of BC](http://mmbc.bc.ca/)

634 Humboldt St.

Victoria, BC V8W 1A4

Phone: 250-385-4222

Website: <http://mmbc.bc.ca/>



New Guidelines on Fatigue – SSB No. 10/2019

Follow the following links to read about the latest IMO Guidelines re "Fatigue".

<http://www.tc.gc.ca/eng/marinesafety/bulletins-2019-10-eng.htm>

<http://www.tc.gc.ca/fra/securitemaritime/bulletins-2019-10-fra.htm>

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