



The Deck Log

Newsletter

Master Mariners of Canada (MMC)

NL Division

October – December 2022

October 13th, 2022

The monthly meeting, for October, took place at the Crow's Nest (13 present) and was also conducted by Zoom (9 present).



October 13th Monthly Meeting

Divisional Master Captain Eben March was unable to chair the meeting but was present for the early part but had to leave to attend the National meeting. After a period to sort out technical issues with Zoom, the meeting was called to order at 19:18 by the Deputy Division Master Captain John Ennis.

There were two presentations given by second year nautical Science students on papers they submitted for their first-year communication skills course.

The first presenter was Bradley Barker with the topic “Examining Alternate Propulsion Methods”. The alternate propulsion methods examined were “Liquid Natural Gas” and Cleaner Fuel Supplemented with Solar Power. Mr. Barker compared the two methods in relation to Emissions, Economic Viability and Ease of Use on new build vessels.

The second presenter was Dominic Tremblay with the topic “Investigation into Cyber Security for Autonomous Vessels”. Mr. Tremblay investigated innovations in cyber security and ways of preventing cyber attacks and how to recover if an attack occurred. Some of the ideas investigated were blockchain technology and precautions for ashore cyber security.

Both presentations concluded with a Q & A session and a general discussion. Both presenters were very knowledgeable and did a great job presenting their topic and answering questions. Captain Ray Dalton presented a gift to each speaker, on behalf of the MMC NL Division.



Gift Presentation October 13th

National executive. Anyone having interest, were asked to contact the Secretary and their name would be forwarded.

Plans are underway for the 2023 Nautical Skills Competition (NSC). Captain Eben March will meet with the two NSC coordinators, Jennifer Howell and Maria Halfyard. After the meeting, a meeting request for all interested in volunteering was sent out.

The meeting was opened for new business and Captain Hearn stated that the national executive is considering options for the name of the organization. One of the proposed new names is Company of Masters and Mates. Any ideas or suggestions were welcome.

Captain Hearn also gave an update on UK and Canada bilateral trade negotiations. After the UK left the European Union they were no longer a party to the Canada-European Union Comprehensive Economic and Trade Agreement (CETA) and are now looking to get a similar agreement with Canada.

November 10th, 2022

A Remembrance Day Ceremony took place at the Allied Merchant Navy Memorial at the Marine Institute of Memorial University. Members, from NL Division, were in attendance. Captain John Ennis was MC for the event. Captain Jim Parsons read the Mariners Prayer. Cadet members, Robin Blatch & André Simões Ré, laid a wreath on behalf of the NL MMC division.

Captain Chris Hearn is participating in a workshop with the Canadian Hydrographic Service on the future of charts and charting. This includes what's happening with the S-100 series of chart information and details. Captain Hearn would like to hear from members regarding this topic in relation to the email he sent out the previous week.

Discussion of the new proposed Marine Personnel Regulations. In the meeting invite there was an attached document titled "Summary of comments on the proposed marine personnel regulations, 2024". All comments are welcome, and the list will be compiled and sent to the National group.

National Business. Expression of interest for volunteers to sit on various positions of the



Remembrance Day Ceremony at Allied Merchant Navy Memorial, Nov. 10th



Capt. John Ennis, MC



**Captain Jim Parsons
reading Mariners Prayer**



**Robin Blatch (left)
& André Simões Ré**

November 17th, 2022

The monthly meeting, for November, took place at the Crow's Nest (13 present) and was also conducted by Zoom (3 present).



November 17th Monthly Meeting

Divisional Master, Captain Eben March, opened the meeting and welcomed all members present at the Crow's Nest and via Zoom.

Captain Kris Drodge, Project Manager of the Net Zero Project, spoke on the project.

The Net Zero Project is a collaborative partnership of Energy NL, Econext and OilCo to drive economic growth, diversification, investment, and awareness in the offshore energy industry through the lens of sustainability in Newfoundland and Labrador by setting the stage for the development, demonstration, and adoption of clean growth strategies and technologies.

The Net Zero Project supports the development of clean growth strategies and projects in priority areas of Canada's net zero journey as they relate to its offshore energy industry: carbon capture, utilization, and storage; electrification and renewable energy; and hydrogen.

Here is a link to their LinkedIn page: <https://www.The Net Zero Project: Overview | LinkedIn>

If you are interested in the project, it is recommended to follow their page.

Captain Eben March presented a gift to the speaker, on behalf of the MMC NL Division.

Captain Eben March gave an update on national business. The proposed Marine Personnel Regulations (MPR), 2023 (hyperlink below) will have Part 1 of the proposed regs gazetted in June of 2023 and Part 2 in the Fall of 2024. Captain Capt. Jim Calvesbert, National Chair Education and Professional Development Committee, has recommended that MMC put together a committee with a representative from each Division to address the issue

of the proposed MPR's. Jim, as the outgoing Chair of Education and Professional Development, is prepared to lead this initiative until a new Chair is in place unless there is someone who feels that they have the background to take it on and work with Bud Streeter to prepare a combined response to TC. [Hyperlink to proposed MPR's: XSL FO Document \(dieselduck.info\)](https://www.dieselduck.info)

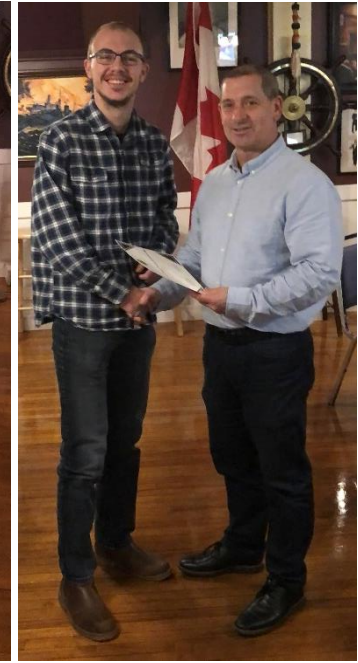
The National AGM was held in October.



Capt. Eben March presenting gift to Capt. Kris Drodge



Baugh Scholarship Certificate to William Peng



Baugh Scholarship Certificate to Bradley Barker

Captain March gave an update on Nautical Skills 2023 Competition. The competition is scheduled for March 3 & 4, 2023 with an alternate date of March 10 & 11, 2023. Jennifer Howell & Maria Halfyard will co-chair the competition. An email has been sent out to potential sponsors and a request for volunteers will be sent out for judges. Nautical Science students can apply online starting December 02, 2022 and the teams will be picked when the new semester starts in 2023. The Master Mariners of Canada NL Division and the Fisheries and Marine Institute will work together to provide the mentoring and the simulators to assist the participants in completing the six challenging exercises. Link to competition: <http://nsc.mastermariners.ca/>

The MMC foundation awards the Captain G.O. Baugh Memorial Scholarship annually and applicants must be a Second, Third or Fourth Year Nautical Student or a Navigation Officer planning to attain or upgrade Nautical Certification. This year two Nautical Science students (Bradley Barker and William Peng), from the Marine Institute, were awarded the scholarships.

Plans are underway for the MMC NL DIV Christmas Dinner. Captain March has booked the Sheraton for December 17, 2022. A separate email was sent to the group outlining the details.

December 1st, 2022

The 11th Nautical Skills Competition was formally launched the Marine Institute. The competition is scheduled for March 3 & 4, 2023 with an alternate date of March 10 & 11, 2023. Further updates will be included in the next edition of this newsletter.

December 17th, 2022

The division's Christmas Dinner was held at the Sheraton Newfoundland Hotel. This dinner was a get together of the Canadian Institute of Marine Engineers (CIMarE) and MMC NL Division. A great time had by all.



Christmas Dinner at the Sheraton

Nautical Trivia

What's the world's largest cruise ship?

Answer: **Wonder of the Seas** (delivered January 2022, photos on next page) and 4 sister ships. Length: 362 m, Breath: 64 m, Draft: 9.3 m, GT: 236,857, Displacement: approximately 100,000t, Cruising Speed: 22 knots, Total Installed Power: 134,290 hp, Bow Thrusters: 4(total 7,400 hp), Azipods: 3(total 81,000 hp), Cost: \$1,350,000,000, Crew: 2300, Passengers: 6,988.

Unlike the Titanic, regulatory requirements for this vessel dictate that there be adequate lifeboats/life rafts to accommodate all onboard, should circumstances require abandoning ship. Wonder of the Seas achieves this with 18 (370 person) lifeboats and at least 32 life rafts (capacities unknown) to make up the balance for regulatory requirements. All of these life savings appliances take up valuable deck space on the ship. A company called Survitec, has put forward a new alternative to help cruise lines manage their increasing passenger capacities while also freeing up valuable deck space. That alternative comes in the form of the world's largest inflatable lifeboat (see page 9).



Wonder of the Seas (even the name on the bow is big). Ref:

<https://www.shipspotting.com/photos/3424252?navList=gallery&shipName=Wonder+of+the+Seas&shipNameSearchMode=begin&page=1&viewType=normal&sortBy=newest>



Wonder of the Seas in Drydock. Ref: <https://www.rivieramm.com/news-content-hub/news-content-hub/wonder-of-the-seas-due-to-leave-chantiers-de-lrsquoatlantique-68336#gallery>



2 Survitec, Seahaven, inflatable lifeboats on sea trials. Ref:

<https://survitecgroup.com/services/seahaven/>

This lifeboat:

- has a capacity for up to 1,060 persons.
- has Stowage footprint of 16.3 x 3.6 m.
- uses about 85% less deck space than the conventional lifeboats needed to carry the same number of persons.
- can be loaded in under 22 minutes.
- launches at the push of a button.
- deploys in under 4 minutes.
- can travel independently for 24 hours, at a speed of up to six knots (using outboard motors).
- has received full type approval certification from classification society Lloyd's Register (08/09/22).

Video links showing deployment and sea trials:

https://www.youtube.com/watch?v=Ax8ghaDv_es (Deployment, 2:29)

https://www.youtube.com/watch?v=H1IgDOU_KKY (2:10)

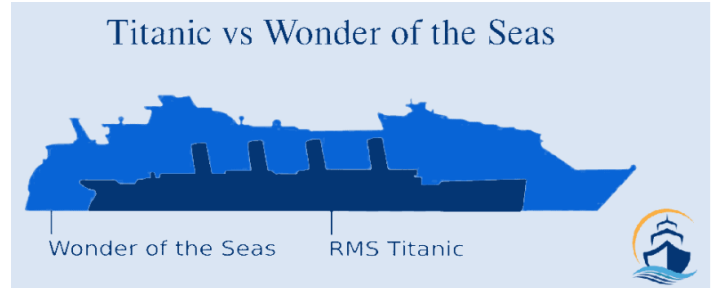
No indications that anyone has ordered the system yet. However, considerable costs would have been incurred developing the system and it is unlikely that would have been done without some idea that there is a market requirement.

The potential here is that there could be up to 1,060 persons occupying what is essentially a motorized life raft. Don't have to give this much thought before potential issues come to light. The chances of 1000 people jumping into those chutes and all ending up safely in the boat, without some sort of injury, is a long shot. Looking at the videos, the motion characteristics can best be described as "interesting". Whomever is in charge had best have an efficient means of distributing seasickness medication to all onboard. Even then, motion sickness is likely to be a major issue. Managing survivors, after abandoning ship, is a challenge in any situation. With these numbers, the challenge would be greatly amplified. In any event, it has been approved and will hopefully work as the designers intend, should the system ever be deployed in an emergency.

For Wonder of the Seas, the label of largest cruise ship won't last long. Icon of the Seas is currently fitting out in Finland. When completed in 2024, at 365m long, approximately 250,800 gross tons, maximum passenger capacity 7,600 and 2,350 crew, it will take over the title.



Passenger vessel size has grown considerably, since the days when the Titanic was the largest.



Size comparison, Wonder of the Seas & Titanic.

Ref: <https://highseascruising.com/titanic-vs-cruise-ship-comparison/>

On the Lighter Side



The deck crew had only one job assigned for the day and still couldn't get it quite right. Or perhaps they did. Maybe a group of smokers who don't like wearing PPE, wanting to make a statement. Those who might not see the benefit of planning and toolbox talks, before starting a job, should take note.

In the News

Pilot misses turn, while on his cell phone, and container ship runs aground.

On a daily basis, we see drivers using their phones while driving. Seems the shipping industry is not immune to this.

On March 13th, 2022, enroute to sea from Baltimore, the container ship Ever Forward ran aground in Chesapeake Bay.

The master left the bridge to go to dinner, leaving the pilot with the third officer, an AB and a cadet. Forty seven minutes later, as Ever Forward approached a turn in the channel, the pilot (distracted by his phone) gave no orders to make the course change. The third officer reminded him of current speed and heading in hopes of getting his attention, but the pilot did not notice. The vessel had overshot her turn by a full minute, by the time the pilot became aware that something was amiss. Urgent maneuvers to avoid a grounding, were too late. The vessel (12.8m draft) ran aground in the mud outside the channel, in a water depth of about 7.3m (at low water).

Refloating occurred with the help of 2 anchor barges, 5 large tugboats, and a full moon on April 17, following dredging of more than 153,000 cubic meters of material from around the vessel and the removal of 505 containers.



A review of the vessel's Voice Data Recorder found that the pilot talked on the phone for about half of the 126 minute time period between leaving the berth and running aground. He had also been seen texting and writing an email on his phone (he was writing an email when the turn was missed).

As a result of the incident, the Maryland Board of Pilots has decided to enact a rule change that forbids on-duty pilots from using their phones. Maryland had banned texting and driving in 2013, but it had still been technically legal to "text and pilot" merchant ships, while in state waters.

The license of the pilot involved, was suspended. Subsequently, he permanently surrendered his Maryland pilot license, in a settlement agreement. He has also agreed that he will never reapply for a license. The ultimate message, don't text and drive.

Ever Forward, aground, March 15th, 2022. Ref: https://gcaptain.com/coast-guard-ever-forward-pilot-distracted-by-cell-phone-prior-to-grounding/?subscriber=true&goal=0_f50174ef03-31cabce225-139902913&mc_cid=31cabce225&mc_eid=8fb15eb136

The USCG report, on the incident, can be found at: https://www.dco.uscg.mil/Portals/9/DCO%20Documents/5p/CG-5PC/INV/docs/documents/EverForwardGrounding_ROI_Redacted.pdf?ver=odDgOSiBdmfRW2gXWrdnEQ%3d%3d

Irving to build 2 Arctic patrol ships for the Canadian Coast Guard.

The Canadian government has finalized a deal with Irving Shipbuilding to build 2 more Arctic and Offshore Patrol Ships (AOPS), for the Canadian Coast Guard. A total of 6 AOPS are to be built for the Canadian Navy and 3 have been delivered. The AOPS can patrol in the Arctic from roughly June to October. To accomplish this they are ice strengthened, have an icebreaking bow and power output similar to that of an icebreaker. However, they are not pure icebreakers. They do not have a hull form for optimum performance in the ice (solo operations) or for operations requiring the escort of other vessels. During the part of the year when they cannot patrol in the Arctic, they will serve as patrol vessels in other areas as subject to naval requirements. Quite often this will be in open waters where no ice is present. To cover these two very different patrol requirements the AOPS are a compromise design. They don't perform the icebreaking role as well as a purpose designed icebreaker and they don't perform the open ocean patrol role as well as a purpose deigned open ocean patrol vessel,



HMCS Harry DeWolf, lead vessel of the class. Ref: <https://www.seaforces.org/marint/Canadian-Navy/Patrol-Vessel/Harry-DeWolf-class.htm>

The deal to expand the class, with a modified variant for the Canadian Coast Guard, extends the production run for Irving and its workforce. The 2 additional ships, for the CCG, will help Irving's Halifax shipyard avoid layoffs during a production gap, while it retools to begin construction of the next generation of Canadian naval frigates. Without the 2 extra vessels, Irving would likely loose a good portion of its skilled workforce.

Government has stated that minimal design changes are needed to make the naval AOPS suitable for CCG operations.

Government has indicated that these 2 extra AOPS will:

- be dedicated to a range of critical missions, including North Atlantic Fisheries Organization (NAFO) patrols.
- operate as the primary conservation and protection enforcement vessels on Canada’s east coast, replacing existing Coast Guard offshore patrol vessels. Likely these would replace the 2 oldest CCG patrol vessels, Cape Roger and Cygnus. Both built in the 1970s.
- have ice capable functionality that will allow the Coast Guard to expand its patrol capability into the low Arctic.

The AOPS contract is part of Canada's National Shipbuilding Strategy (NSS), the multi-year procurement program that divides federal shipbuilding work between three yards - Seaspan (Vancouver), Irving (Halifax) and the recently-added Davie Shipbuilding (Quebec). The high cost of vessels, built under the NSS, has faced criticism. In particular, the high costs, as related to similar vessels being built in other countries. It has been noted that project costs not only cover building costs. Things such as project management, spares, crew training, port infrastructure, maintenance, etc, are included in the costs of the Canadian vessels (varies dependant on the document that you read). Other countries, supposedly, only state building costs.

Costs for Arctic and Offshore Patrol Ships (AOPS)		
Initial Contract 2013	\$288,000,000	Irving was awarded a contract to design, not build, the AOPS. The design is based upon a Norwegian vessel (Svalbard) whose design Ottawa had already purchased for just \$5 million. The Svalbard design needed extensive revisions to adapt it to Canadian requirements and produce final blueprints. Experts estimated cost for this (in Canada) would be no more than about \$20 million. The actual design of the ship was subcontracted offshore, to OMT of Denmark, whose cost estimate IMC (see below) described as "quite generous." So much for spending the money in Canada, to create Canadian jobs.
Initial Build Contract 2015	\$2,300,00,000	Contract awarded for Irving to build 6 AOPS. The contract only guaranteed delivery of five ships and allowed for construction of a 6 th ship, if the shipbuilder could find enough savings within the existing program budget (these were never realized). About \$400 million for each of 5 ships. Before signing the contract, the federal government was warned, by its own advisers, that the contract was “overpriced”. Based on a report, by International Marine Consultants of Vancouver (IMC), that was commissioned by the Department of Public Works.
2022	\$4,300,000,000	Project cost, for 6 AOPS, update. Including budget for the 6 th AOPS, at \$800 million.
2023	\$4,980,000,000	Latest project cost, for 6 AOPS, update. Average cost for each vessel, \$830 million.
2023	\$1,600,000,000	Project cost, for the 2 AOPS for CCG at \$800 million each.

The class has had its share of teething issues. HMCS Harry DeWolf is currently sidelined due to diesel generator failures. The navy recently discovered excess lead in the drinking water system. It has traced the cause back to pipe fittings and valves made of alloys that exceed lead content standards. The same components

have also been built into sister ships HMCS Margaret Brooke, HMCS Max Bernays and HMCS William Hall. Currently, bottled water is being supplied for the crews. For vessels that have to deploy to the Canadian Arctic, a huge logistical and costly issue. The cost, from initial estimates, has doubled from \$400 million per ship to \$800 million. Even at \$400 million, it should have been possible to design, procure and install a potable water system that meets current guidelines.

What will CCG, and the taxpayer, be getting for \$1.6 billion?

- The CCG AOPS will mean that current aging patrol vessels will be replaced by 2 long endurance (6,800 miles at 14 knots), helicopter carrying offshore vessels, much earlier than expected under the NSS.
- The vessels have a hangar and flight deck capable of employing and maintaining large CH-148 naval and CH-149 Cormorant SAR helicopters.
- The vessels are much larger than those they will replace. Displacing 6,600 t (as opposed to 1,625 t) and 103.6 m long (as opposed to 62.5 m).
- Increased ice capable functionality that will give the CCG to increased patrol capability in ice covered waters.

What are the doubts about what CCG, and the taxpayer, are getting for \$1.6 billion?

- There are questions as to whether the AOPS is fast enough for a patrol vessel. A maximum speed of 17 knots is only 1 knot slower than that of the vessels they are to replace. However, the original planned maximum speed for the AOPS was 20 knots. An icebreaking bow form is not the most efficient shape to push through the water. The AOPS needs 12,400 SHP to achieve 17 knots. The power needed to get those 3 extra knots was labelled as “immense”.
- Much of the operational profile for the CCG AOPS will include patrols offshore Eastern Canada. How will the icebreaking bow perform in rough weather conditions that will often be experienced? Especially when heading into rough seas, the effects of slamming on the vessel/crew and potential speed restrictions.
- The AOPS has no bilge keels, due to ice operations requirements. Fin stabilizers are fitted to control vessel motions. At reduced, or zero speed, stabilizer effectiveness is reduced. Will the CCG AOPS have poor motion characteristics when slowed to deploy/recover FRCs or to conduct helicopter operations.
- The AOPS can easily accommodate the helicopters currently operated by CCG. Being able to launch and recover in the sea states found offshore, is something else. Will AOPSs motion characteristics seriously impede the ability to use embarked helicopters, when operating offshore? This video, showing a naval helicopter (especially equipped for such operations) landing on a Danish patrol vessel in heavy seas, will serve to illustrate the difficulties involved. <https://www.youtube.com/watch?v=NJIZTL2ZyEw>
- Having 2 ice capable patrol ships, might make it harder for CCG to justify getting new, dedicated icebreakers. Being ice capable is not the same as being an icebreaker. They have very different hull and machinery requirements. The AOPS suffices to get itself through the ice. An icebreaker is required to be able to break ice to the extent necessary to allow other, less well protected, ships to transit. Those making future purchase decisions, may not understand this. Ideally CCG AOPS should be seen as offshore multi-mission patrol ships that can operate in ice, where and when necessary.

Whether these vessels are totally suitable, for the tasks assigned, remains to be seen. How the CCG AOPS performs will be seen when they are operational. Based on history of CCG vessel longevity, one thing is certain.

Once in service, these 2 vessels will be in service for a long time. One way for taxpayers to get some value for their money.



Model of Canadian Coast Guard AOPS. Ref:

<https://twitter.com/IrvingShipbuild/status/1323351521287954433/photo/1>

Wishing all members, family and friends a Very Happy New Year - 2023