



The Foghorn

Newsletter of the Maritimes Division of the
Company of Master Mariners of Canada
www.mastermariners.ca



March 2020

From the Master Captain Marshall Dunbar

Good Day Everyone,

Would like to start by advising that we have two new members, Capt. Gary Joyce, Christopher Riggs and a transfer from the Vancouver Island Division Captain Brandon Cochrane.

I would like to welcome them to our Division and hope that they enjoy our meetings, events and they can help us draw in more members which is always a benefit.

I want to say thanks to our members who are / will attend the NSCC Nautical Skills Competition March 4 & 5 as judges or to assist with the event which we are sponsoring. It is actually good that these types of events are being held by the schools as it promotes the industry, it gives great exposure to future seafarers, employers and interested parties like the MMC.

As mentioned last month, the environmental aspect of our industry continues to be hot topic. We even saw this locally with the rail disruption to the local ports being created by protestors and their demands. The intermodal system makes it work very well and yet the disruption by one mode may affect all modes.

I am going to end by continuing on with an idea that was recently published on the BBC. It is one of those ideas for an alternate fuel for shipping. Obviously giving credit to the BBC / Roger Harrabin and I hope that all find it interesting.

By Roger Harrabin BBC environment analyst

Ocean-going ships could be powered by ammonia within the decade as the shipping industry takes action to curb carbon emissions.

The chemical - the key ingredient of fertilisers - can be burned in ships' engines in place of polluting diesel.

The industry hopes ammonia will help it tackle climate change, because it burns without CO2 emissions.

The creation of the ammonia itself creates substantial CO2, but a report says technology can solve this problem.

The challenge is huge, because shipping produces around 2% of global carbon emissions – about the same as the whole German economy.

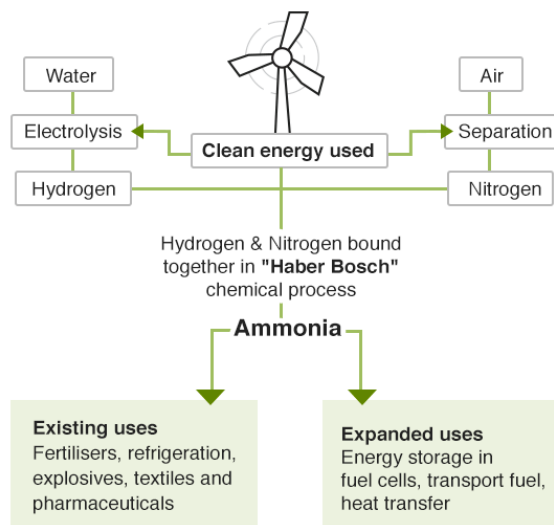
Making ammonia is also a major source of carbon. **A report by the Royal Society** says ammonia production currently creates 1.8% of global CO2 emissions – the most of any chemical industry.

But the authors of the report say new technology can create zero carbon ammonia. One way is by trapping the CO2 emissions created when ammonia is produced, and burying the CO2 in underground rocks.

Another way of making so-called "green" ammonia is to use renewable energy which doesn't create any CO2.

But the big question is whether enough clean energy will be available to create ammonia at scale in the coming decades.

How green ammonia is made





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What's so good about ammonia?

Ammonia is an invaluable jack-of-all-trades chemical – but it is a menace in the wrong place.

It is shipped in bulk as an essential base for chemicals, textiles, explosives, refrigerants and fertilisers.

But when it is spread carelessly on fields it causes air and water pollution, and it can react with other chemicals to make greenhouse gases.

The Royal Society report says farmers need to use ammonia much more carefully.

But it notes that the near ubiquitous use of ammonia for agriculture has conveniently generated a global network of ports where the chemical is traded or stored.

That means the infrastructure for storing chilled ammonia as a shipping fuel already exists. In the USA, for instance, one existing ammonia pipeline runs for 2,000 miles.

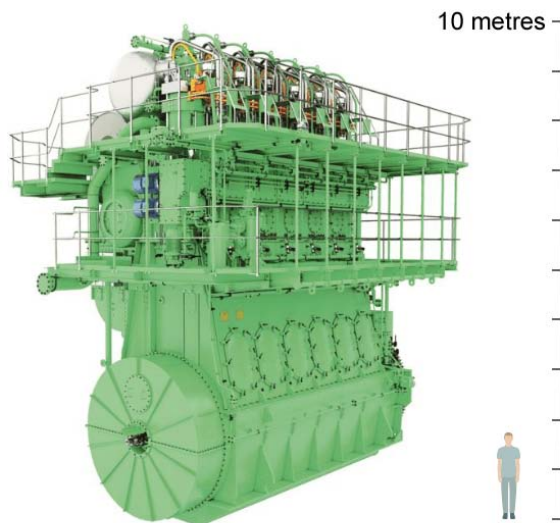


Image copyright **Man Energy Solutions** Image caption Ammonia engines can be developed from liquefied petroleum gas engines like this one

How soon could ammonia be powering ships?

The engine designer Man Energy Solutions is making a two-stroke ammonia-powered engine it hopes will be ready by 2024.

The firm's spokesman, Peter Kirkeby, told the BBC: "We see a very big interest from the market in ammonia as a fuel – even though there are challenges.

"We expect the first ships fuelled with ammonia will be existing tankers that are already transporting ammonia for fertiliser. They know how to handle it."

He said he expected ammonia to match the price of other alternative fuels such as liquefied petroleum gas, liquefied natural gas or methanol.

However, the report shows how inefficient these fuels are compared with energy-dense diesel.

This means that ships powered by greener fuels need to set aside more valuable space for fuel storage.

That's why the report's authors say hydrogen will be too bulky to fuel ocean-going ships.

And there's a further problem. Burning ammonia may not cause CO2 emissions, but it does create nitrogen oxides, which are also greenhouse gases. The report says technology will need to be developed to deal with this.



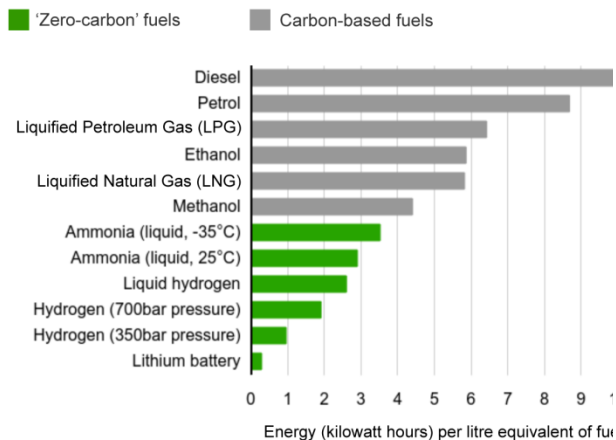
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Energy released per litre consumed of various fuels



Source: 2013 Technology Roadmap / Royal Society



Is there a bit of wishful thinking on ammonia?

The Royal Society's lead author, Prof Bill David, told the BBC: "Ammonia is the only zero-carbon fuel that will get you across the oceans."

But he warned: "In terms of emissions from industrial processes, ammonia comes only after cement and steel, so we need to decarbonise the production of ammonia."

A recent academic report called Absolute Zero was sceptical as to whether the ammonia industry could expand fast enough to power ships, while decarbonising at the same time.

It said the implementation at scale of ammonia from renewables would be an additional burden to the decarbonised power grid.

Prof David disagrees. He says: "Ammonia is the only way to store zero-carbon fuel from renewables for days, months and years."

The UN shipping body, the IMO, has a target of halving emissions from international shipping by 2050 compared with 2008.

A group of major shipping owners says \$2 (£1.50) should be levied on every tonne of ships' fuel to support research into clean engines.

Environmentalists have consistently complained the industry is not playing its part in reducing

emissions. In the short term they want to reduce the amount of shipping overall, and impose slower cruising speeds to save fuel.

All for this month and many thanks

Marshall



Meeting February 12, 2020 Held at the Maritime Museum of the Atlantic

With Captain Greg Wilkie in the chair and 9 members in attendance, the meeting began at 1900. Our guest speaker, Mac MacKay of the Shipfax Blog, started the evening off. Although beginning his early life in Stratford, Ontario, Mac was always interested in the shipping world through his summers spent in Murray Bay Qc on the St. Lawrence River. His photography interest was particularly stimulated when he arrived in Halifax in 1966 to attend university. From that time, he began haunting the waterfront and taking pictures of everything that moved on the water. His presentation to us reflected his beginnings of mailed out newsletters to friends up to today's Shipfax Blog.

Many of his photos brought back tales from our members about specific ships (remember that we're all old enough to remember those ships ☺). Saguenay Shipping, which has someone has created a Facebook page about, general cargo being phased out with the delivery of Volvo sub-assemblies in crates to Pier 9, Dart Lines with the first containers into Halifax, and the days when the grain elevators were in steady use. The Dartmouth Marine Slips were a major repair facility for foreign fishing vessels. And then the humorous stories of an infamous broker who often sold ships that he either didn't own or which were incapable of making their delivery trip.

Mac left us with a thoughtful message that a study of water levels which may affect Halifax over the next 50 to 100 years should be undertaken very quickly. The downside of rising sea levels also carried a positive message for the Port of Halifax. Unlike the majority of east coast U.S. ports, Halifax has the potential to become a sea-locked port. By closing Eastern Passage, extending Meagher's Beach toward Halifax and created a lock system, Halifax could become a major east coast port in North America. After an interesting and stimulating presentation, Mac stepped down at 2100 after a presentation from Capt. Wilkie.



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Mac MacKay and Capt. Greg Wilkie

At 2020 Capt. Wilkie opened our regular meeting with the first topic for discussion:

1. NSCC Skills Competition. This will be held at the Port Hawkesbury on March 4th and 5th. A Captains' level sponsorship at a cost of \$1200 was authorized. At the same time, it was requested that any members who would be available to act as judges at the competition put their name forward. Members in the Port Hawkesbury area will be contacted individually.
2. The 2019 financial report will be available shortly and internal auditors are required to review and approve the report. Capt. Calvesbert has volunteered to act as one of the auditors.
3. Battle of the Atlantic. This will be held on May 2nd at the MMA and was a strong reminder of the passing of LCdr Jim Reddy who, along with his wife Pat Jessome, was the major organizer of this event. Capt. Knight will attempt to contact Pat to obtain files and details and Capt. Connor will review past emails for planning information.
4. As mentioned above, the position of Secretary remains unfilled and Capt. Dunbar has requested that members review their availability to accept this important duty.

In other discussions, the passing of Capt. Jim Ewart, Master/Vice President of the Vancouver Island Division, and Linked In coordinator for MMoC, was noted. He was in his early 60's and his passing was swift and unexpected.

The Chamber of Shipping is concerned about the lack of Great Lakes pilots and Masters' pilotage

certificates. There have been suggestions by them that although pilots were well represented by their union, Masters are not. Perhaps consideration should be given by MMoC to being that representation body. More investigation and discussion is required.

With no further business to conduct, the meeting was adjourned at 2055.



Secretary's Position

Our Divisional Secretary plays a very important role in ensuring the recording of decisions, scheduling of meetings, assisting the Master (Vice President) with coordinating activities, and maintaining contact with the other divisions to make Master Mariners of Canada a truly national organization that *"Represents the interests of Shipmasters and senior deck officers in Canada and internationally through membership in the International Federation of Shipmasters Associations."*

Jim Reddy filled this position for many years in a manner which responded to all of the above requirements and his performance will be a target to be achieved for our next Secretary.

If you have an interest in assisting us by filling this position, please contact the Master,

Capt. Marshall Dunbar, at
Marshall.dunbar@federalfleet.ca



Speaker Coordinator

Our Master has done a wonderful job of finding guest speakers but it does take time and as one of us who still works full time, it does become burdensome. If there is someone in our group who has some time to arrange speakers, it would be appreciated if you would let the Master know at marshall.dunbar@federalfleet.ca





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Polar Icebreaker Conundrum **Capt. Jim Calvesbert**

The replacement for the CCGS Louis S. St.-Laurent has been set back again! Not a big surprise since Canada hasn't designed a polar icebreaker since the early '60's. Now, however, we are still debating where to build it, when to build it and, how much it will cost. The latest estimate on date is 2029 and the \$1.3 BILLION is again under review.



CCGS Louis S. St.-Laurent

The government has given Canadian shipyards two (2) weeks to indicate their capacity to build this ship which further suggests that there is one in charge who understands the complexity of shipbuilding and scheduling.

I would like to see someone in authority stand up and say "in the interest of saving time and money, we are going to buy a hull and propulsion system from a country and company that has demonstrated icebreaker construction competence and then we will finish the ship in Canada". The M/V Asterix demonstrated that this approach is cost effective and time saving and still provides Canadian jobs while meeting the needs of the client.

Not everything that we buy or build needs to be, nor should it be, "Canadianized". Purpose built – yes: but conforming to international standards so that parts are easily obtainable and interchangeable.



Future CCGS John G. Diefenbaker (maybe)

I sailed on the "Louis" in her first year of service when I was in my first year as an officer. I've been retired for 15 years: shouldn't the ship be too?

(I'd love to see some further discussion along the lines of Canadian shipbuilding in The Foghorn)



Lieutenant-Governor's Award Ceremony **February 19, 2020** **Helen Glenn**

This afternoon, Their Honours were pleased to host a reception to thank and recognize the volunteers and board members of the Mission to Seafarers Halifax. His Honour is the Honorary Patron of the Mission to Seafarers Halifax. During the reception, His Honour was pleased to invest two honours as follows:

- Sovereign's Medal for Volunteers – Mr. Elwood Gotell

- United Kingdom's Merchant Navy Medal for Meritorious Service – Captain Angus McDonald

In addition, Jack Gallagher from the Master Mariners of Canada, Maritimes Division, made the Mission Manager an Honorary Member in recognition for the work that the Mission Manager does to support mariners.

We thank Their Honours for a delightful volunteer reception at Government House. We are grateful to Elwood Gotell for his outstanding service to our Mission. He is so deserving of the award. Congratulations to Captain Angus McDonald as well.

We are very pleased and grateful for the presentation from the Company of Master Mariners who has been an incredible supporter of our Mission for decades. How very humbling and proud are we! We are truly blessed and I feel so much joy in my heart from the inspiration I receive from all our incredibly giving volunteers.



F.W.E. for this edition
Capt. Jim Calvesbert, Editor