

Melbourne Branch

The Log
The Monthly Newsletter of the Melbourne Branch of
The Company of Master Mariners of Australia Limited

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NEXT MEETING

Mail Exchange Hotel

Wednesday 28th Sept 2022 @ 1800 hrs

Video Presentation from The Netherlands

Speakers Capt. Antonio Di Lieto

**DILIGENT PILOTAGE- Lessons learned
from the Jolly Nero**

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From the Branch Master

On 08 September 2022, in the United Kingdom Her Majesty Queen Elizabeth II, the longest serving British sovereign in history passed.

All commissioned ships and establishments within the Royal Australian Navy were recognised as Her Majesty's Australian Ships. Now the recognition has changed to His Majesty's Australian Ships.

His Majesty's Australian Ship Warramunga arrived on 12 September for port visit to Melbourne berthing at Outer East Station Pier, Port Melbourne. An historic arrival for the first visit under the new recognition.

HMAS Warramunga (II) is the third of eight Anzac Class frigates built by Tenix Defence Systems at Williamstown, Victoria for the Royal Australian Navy. The design is based on the German Meko 200 frigate.

Warramunga is a long range frigate capable of air defence, surface and undersea warfare, surveillance, reconnaissance and interdiction. Warramunga's combat capabilities have been significantly improved under the Anti Ship Missile Defence upgrade program, a world class program that provides an enhanced sensor and weapons systems capability.

The Merchant Navy Day celebration lunch held at the Royal Victorian Motor Yacht Club, Williamstown was an outstanding success. The RVMYC was represented by Vice Commodore Chris Ackerman who proposed the loyal toast. The toast to the Merchant Navy was proposed by the Branch Master. CoMMA members and partners/guests then enjoyed a sumptuous three course lunch in the main dining room with spectacular views over Hobson's Bay. We were even privileged to be able to watch passing shipping entering and leaving the Port of Melbourne on the day. A fascinating presentation was given at the monthly dinner by Capt. Jorgen Berg on his adventures in Antarctica. The talk was well illustrated with many historic photos taken from the ships he served on and off board on the ice. Please see the summary included in the LOG.

Fair Winds

Graeme



Up Coming Events

The September meeting will be a video presentation by Capt. Antonio Di Lieto the author of "Diligent Pilotage- Lessons learned from the Jolly Nero".

Nine people were killed when the ship "Jolly Nero" struck the control tower in Genoa following a main engine failure. Capt. Di Lieto will speak about the causes of the accident and the conviction of the Captain, Chief Engineer and First Officer.

Capt. Di Lieto is a senior instructor at Carnival Corporations Cruiseship Simulation Centre. He has experience as a hydrographic surveyor, Master of a survey ship and cruiship officer. He worked at Smartship Australia as a simulator instructor where he facilitated port development projects and Marine Pilot training courses.

This year the Mission to Seafarers Maritime Art Prize and Exhibition will celebrate 20 years since its inception. Total prize money this year will be \$25,000.

The official opening will be on Thursday 29th September and the exhibition will be open to the public from 30th September to 16th October.

The Annual Seafarers Church Service at St. Paul's Cathedral will be held on 23rd October commencing at 1000hr.

The organising committee for the service comprises representatives from the Mission to Seafarers, The Company of Master Mariners and the Naval Commemoration Committee of Victoria.



“Wattle” Update

A circular has been received from Tony Lewis the Chairman of Bay Steamers Maritime Museum advising that they are in the process of raising \$200,000 to complete the fit out of the Tug and get it operating by the end of the year.

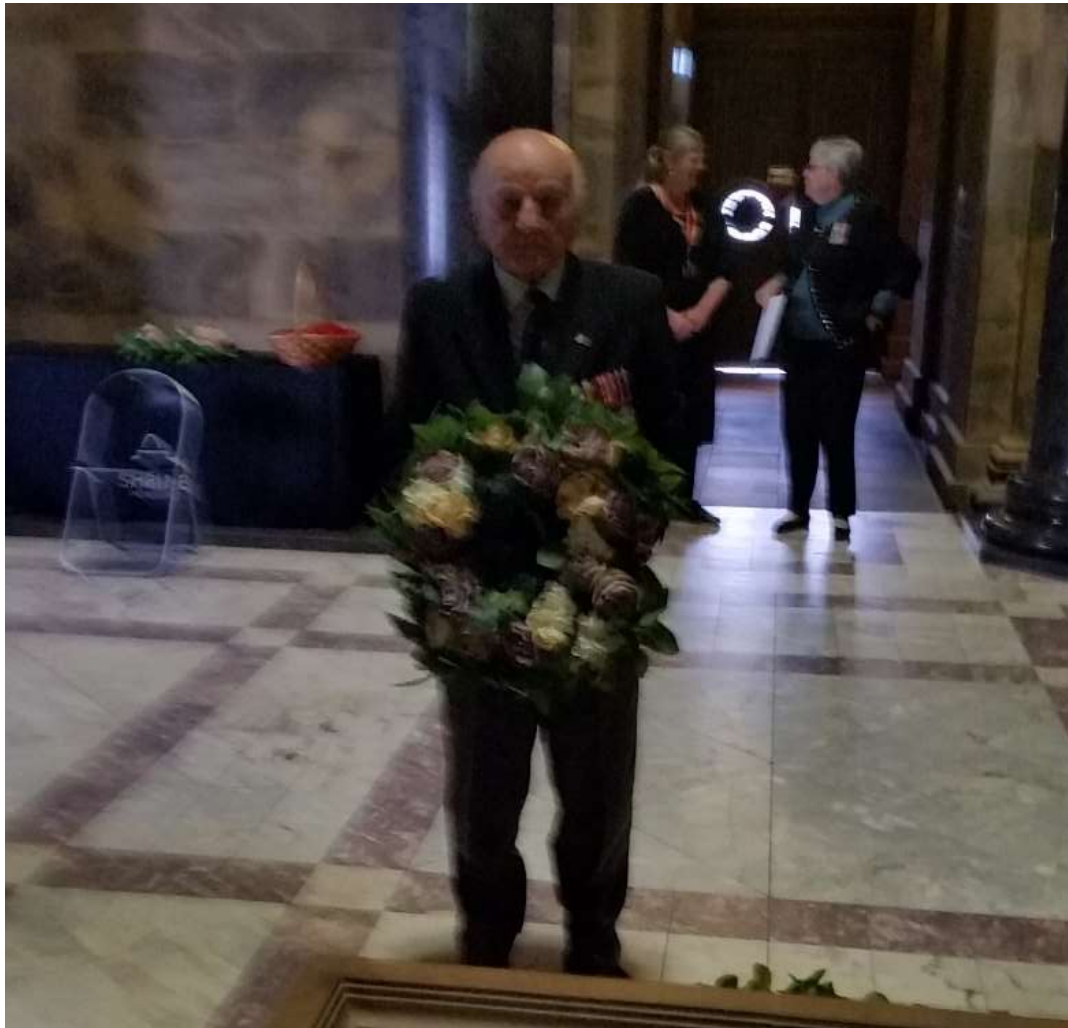
Funds raised will be used to refurbish the galley to obtain a food licence after which the Tug must be slipped, its bottom inspected and painted, and an inclining experiment completed. Other expenses are the purchase of 55 PFDs and lots of little items such as crew radios, pyrotechnics, etc. Another big slice of money will be taken up by Lightship Assessment, Stability Book, Insurances and sundry fees for food and liquor licences etc. Following which an application will be made to AMSA for issue of a Certificate of Survey and a Certificate of Operations. Bay Steamers have also budgeted for initial funds to underwrite operational and maintenance activities until they return to profitability.

If you are looking to hone your seamanship skills or just need a Saturday morning hobby, Bay Steamers Maritime Museum welcomes anyone who would like to spend some time helping in the restoration and operation of the Wattle. The crew meet every Saturday from 0900 at Shed 2 North Wharf, Docklands (access from Collins Street). Consider this an invitation to turn up and meet other like-minded enthusiasts.

Bay Steamers is also looking for Masters to drive this tug within the bay.



Merchant Navy Day – 3rd September



Two dozen people attended the Merchant Navy Day Service at the Shrine of Remembrance. The address was given by CDRE Greg Yorke who spoke about the vital role the Merchant Navy played in supporting the troops during wars.

Two Melbourne Branch members played a role in the service. Capt Neville Daniel laid a wreath of behalf of the Merchant Navy and for the Mission to Seafarers by Capt Graeme Keys.

The 3rd September marks the anniversary of the first day of WW2 when the first merchant ship, “Athenia” was lost in the war.

In 2007 Merchant Navy Day was declared a national day of observance in Australia to pay tribute to the wartime service of the Merchant Navy.

Captain Mike Wood - 50 Year Member



Captain Mike Wood was presented with a plaque in recognition of his 50 years of membership of COMMA.

Mike went to sea in 1958 as an Apprentice with the Singapore Navigation Company the shipping arm of the H.C. Sleigh group of companies. Recalling how times have changed he sailed on the "Harold Sleigh" which was engaged in the crude oil trade with a deadweight of only 12,614 tons.

He studied for his Masters Certificate at the Sir John Cass College London.

Mike stayed with the Sleigh Group which included Dominion Line which operated the passenger ships "George Anson" and "Francis Drake". He met his wife who was the hairdresser on "George Anson"

His last ship was the tanker "Hamilton Sleigh"

In 1972 Mike was appointed Marine Superintendent and in 1975 Operations Manager. He retired as General Manager in 2000.

Battery Powered Electric Ships

The shipping industry which is responsible for about 3% of Global CO₂ emissions is required by the IMO Greenhouse Gas Strategy to reduce CO₂ emissions by 40% by 2030 and by 2050 to reduce total annual greenhouse gas emissions by 50% compared to 2008 levels.

The industry is approaching the problem of emission reduction in a number of ways including developing the use of low carbon fuels such as methanol, ammonia, LNG and fuels produced from biomass sources.

Another approach being trialled is wind assisted propulsion which uses rigid sails, rotor sails or even wind kites to assist the ship's conventional means of propulsion. Slow steaming, voyage optimization and hull design can also assist in reducing emissions and there is renewed interest in the US in nuclear powered ships.

Battery powered electric ships are seen as having a major role to play in the future. At present they are limited to relatively small ships operating over short distances at usually low speeds in sheltered waters.

Amongst the first electric vessels was the Norwegian car ferry "*Ampere*" which entered service in Sognefjord in 2015. The 260 foot ferry carries 120 cars and 360 passengers.



With thousands of islands and inland fjords ferry travel is the fastest way to reach many destinations in Norway.

With abundant hydroelectric power the nations entire ferry fleet numbering over 70 will be electric by 2023. Norway's first high speed electric ferry "*Nedstraum*" has recently entered service. At 98 feet long the vessel carries 147 passengers and a crew of 3 at a top speed of 23 knots.

"*Yara Birkeland*" the world's first electric container vessel is also autonomous. With a length of 80 metres and a deadweight of 3,200 tonnes it can carry 120 TEU at an economical speed of 6-7 knots.



Electric ferries are being designed to operate from Piraeus to the Greek Islands and the government in California has awarded a grant to support the development of an electric ferry service around San Francisco.

The largest ferry currently in operation is the "*Yangtze River Three Gorges 1*" which can carry 1300 passengers and travel 100 kilometres on a single charge.



While ferries make up the bulk of electric ships at this stage, examples of electric vessels can be found over a wide range of ship types.

Auckland has recently taken delivery of an electric tug which they named "*Sparky*".

The running cost will be a third of a diesel tug and will save approximately 465 tonnes of CO₂ per year. Recharge time is two hours and the tug can run up to four shipping moves on one charge.

In Japan the Asahi Tanker Company will operate a 60 metre electric tanker to bunker ships in Tokyo Bay with marine fuel oil.



The use of electric ships in the ocean going trades is restricted by the limitations of the Lithium-ion battery.

Bureau Veritas wrote in a commentary on battery powered ships "Key concerns regarding safety, cost, installation and battery lifecycle must be addressed before batteries can be regularly integrated aboard ships"

Thermal runaway is the greatest risk with Lithium-ion batteries. If a battery cell is damaged or subjected to intense heat it suffers an exothermic reaction causing more and more heat to be generated. This can propagate to other battery cells resulting in a reaction that is almost impossible to stop.

Lithium-ion battery failure can result in water reacting with Lithium to produce hydrogen gas. Ship based battery systems are often in enclosed spaces heightening the risk of explosion.

In 2018 the superyacht *"Kanga"* was heavily damaged by a battery fire off the coast of Dubrovnik. In 2019 the Norwegian ferry *"Ytteroyningen"* suffered a Lithium-ion battery fire and explosion. The damage was considerable and 12 firefighters were hospitalised due to exposure to hazardous gasses. In March 2022 the car carrier *"Felicity Ace"* carrying thousands of luxury German cars caught fire and sank. Many of the cars were fitted with Lithium-ion batteries and while these batteries may not have been the cause of the fire they resulted in a fire that could not be controlled. Though not a ships battery fire it demonstrated the potential danger of Lithium-ion batteries.

The classification societies such as ABS have produced guides to provide requirements and reference standards to facilitate effective installation and operation of Lithium-ion battery systems and the UK Maritime & Coastguard Agency issued a Marine Guidance Note on the subject.

Battery capacity decreases over time and batteries must undergo endurance testing to ensure sufficient capacity is maintained. Once batteries can no longer be used they must be recycled to ensure that the dangerous and polluting elements are handled safely.

To increase the range of electric ships the US Company Fleet Zero proposes building batteries into 20 foot containers. When the ship reaches port the depleted batteries can be lifted off and swapped for charged ones.

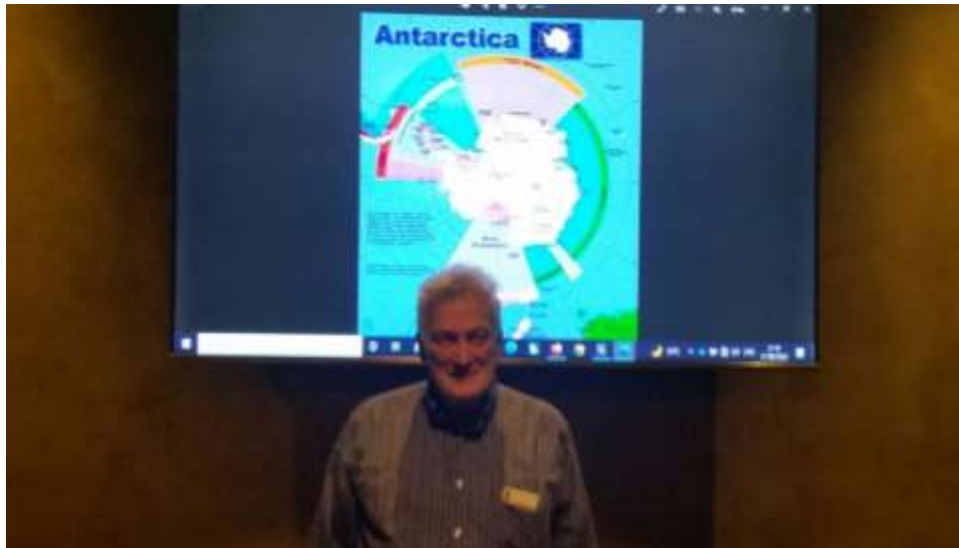
Academics from the University of California and the US Department of Energy have calculated that 40% of global container ships could be electric within the decade.

The study showed that the cost of propulsion of an 8,000 TEU battery electric containership is lower than that of an identical ship slow steaming with a diesel engine burning MFO on voyages less than 1,000kms. For longer voyages the cost of the larger battery system out ways the savings but expected improvements in battery energy density will eventually increase the effective range.

The electric ship industry are confident that battery/electric ships will be making international voyages within the decade.

August Speakers Summary

The speaker at our August meeting was Branch Member Captain Jorgen Berg who spoke about his time on the Danish Polar Expedition Ships.



Jorgen spent 10 months as a deck apprentice on board *"Kista Dan"* and latter served as 1st Officer then Chief Officer on *"Thala Dan"*

Jorgen's voyage on *"Kista Dan"* started with loading cargo in the UK for the British Antarctic Survey. When the ship crossed the equator King Neptune paid a visit and a photo of the occasion showed Jorgen was dressed as a women with enormous breasts.



As an apprentice one of Jorgen's duties was to look after the sledge dogs. On occasions the crew would butcher seals to supplement the dog's diet.

"Kista Dan" called at the Falkland Islands and at South Georgia where at the time there was a whaling station. The next call was to the base at Signy Island then to Deception Bay where some of the cargo was transferred to the British Antarctic Survey Vessel *"John Biscoe"*.

Jorgen showed photos of the different types of ice the ship experienced on the passage to Halley Bay where the cargo was discharged onto the ice then placed on sleds and towed to the base by vehicles with caterpillar tracks.



The station at Halley Bay was continually being covered in snow. Eventually the weight of snow would crush the buildings and they would have to build new ones. This practice was not sustainable and the ice shelf was moving and subject to cracking. A new style of accommodation built on skis was developed that could be towed to different locations as required.



Jorgen's next photo was of the "*Kista Dan*" in dry dock which showed the arrangement for protecting the propeller from ice. The system worked and the ship never lost a propeller blade which many other ships did.



Photos were shown of a couple of earlier polar supply ships. "*Laburan*" an ex WW2 tank landing ship and "*Wyatt Earp*" which was originally built for the Norwegian herring fishing trade. There were some interesting photos of "*Thala Dan*" discharging cargo at Mawson and Dumont d'Urville bases sometimes using DUKWs or LARCs. Sometimes the cargo included aircraft.



Operating in Antarctica was not without its problems. On one occasion *"Thala Dan"* was beset by ice for 32 days. The ship also ran aground approaching Casey station causing damage to its forward tanks requiring it to return to Australia for repairs. Jorgen concluded his talk by showing photos of some of the most modern Antarctic expedition ships including *"Nuyima"*, *"Sir David Attenborough"* and *"Xue Long 2"*. During his presentation Jorgen showed 96 photos showing everything from ships to bases, icebergs to penguins, modern aircraft to Mawson's Hut. Jorgen gave an excellent talk that was appreciated by the members.



"Thala Dan"



Photos used in this article were supplied by Mr. Pen Guin