# The Porthole

**Volume 18 No. 04 April 2018**

***The newsletter of***
***the South Australian Branch of the Company of Master Mariners of Australia,***
***PO Box 1, PORT ADELAIDE, SA 5015***
***Branch Patron: His Excellency the Honorable Hieu Van Le AC***

## Branch Master's Comments

A very Good Day to All,

As I pen this, we in the Federal Court have just spent the best part of Wednesday 18th April engaged in the AGM, which for the first time was held by a phone link up. We split the meeting up into two sessions, am and pm, and, regardless of an echo on the line, was technically pretty sound, inasmuch as all was understood between us. This was ultimately as much a cost saving measure as an experiment, and though successful, we will have a face-to-face meeting next year. Something is definitely gained with a physical meeting, in my humble opinion.

The meeting proceeded with the various reports from the Federal Master, Secretary, Registrar, and Webmaster. I will table all these reports at both our Court Meeting and at our Monthly Branch Meeting next Tuesday (the day before Anzac Day). Then the various financial reports were tabled and discussed. As you already know, a loss of $16,218 in total was sustained last year which was mainly down to the Federal Branch overestimating the membership numbers, and thus the levies. This has been corrected now, and our expenditures have been trimmed accordingly. After much discussion, it was decided to remit half of the annual levies due to the Federal Court in April, as our treasurer assures us that this would be a great help. We would remit the other half in July as per usual.

Our Federal Secretary for many years, Frank Kaleveld, is resigning effective 1st July this year, and Capt. Stuart Davey will be assuming his duties. From this date, Capt. Davey has agreed to assume the previous telephone allowance to his own account, and his honorarium has been set at $1875 per quarter. The amended Budget for 2018 was accepted.

*Continued on page 2.*

## Speaker: Paul Phillips

whose topic will be

**"Supercargo-Not So Super Ships".**

**As the last Wednesday in April falls on ANZAC Day. the next Branch meeting will be held at the Largs Pier Hotel, 198 The Esplanade, Largs Bay, on Tuesday, 24th April 2018 at 1145 for 1200.**

**Please confirm your attendance at the lunch or register your apology before 1200 on Monday, 23rd April 2018 with Bob Westley (0427 644 947) or David Holmes (0417 444 742)**

The Company of Master Mariners of Australia Ltd. is a Company established to promote and further the efficiency of the Sea Service generally, and uphold the Status, Dignity, and Prestige of Master Mariners in particular.

Inside this issue:

*Continued from page 1.*

Tim Ryan has been retained as Auditor for next year.

We are still looking for a new editor for our 'Master Mariner' magazine, and a mix of electronic and printed copies will be promulgated. Advertising income will depend on this mix. No allowance for this has been made for this year.

We decided to present Ravi Nijjer with our Outstanding Achievement Award. He is fairly well known to all Australian Seafarers due to his Bridge Resources Management courses which have been on-going for a long time.

The next Congress has been rescheduled for April 2019 in Fremantle and will coincide with our next face-to-face AGM.

We finished our AGM with a discussion about the future prospects for the employment of Cadets, and we will try to push some foreign companies that are on Australian runs (for instance the Weipa - Gladstone bauxite run) into helping Australian cadets. Our next telephone directors' meeting is scheduled for the beginning of July.

I apologise for being so long winded - I'll try not to do it again!

Good Sailing

Bob W (BM)

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## Operation IceCube

Our guest speaker at our March meeting was Sally Robertson, a Ph.D. astrophysicist student at Adelaide University, involved in Operation IceCube, the study of neutrinos.

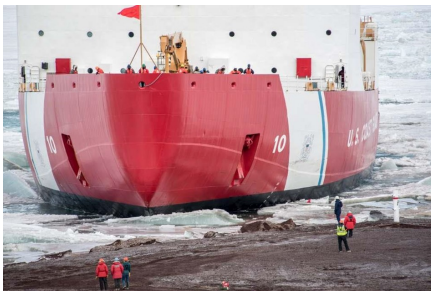
In late 2017 Sally was selected to be part of the annual team sent to the one cubic kilometre Ice Box array set within the ice at the South Geographical Pole. After a commercial flight from Adelaide to Christchurch, Sally arrived at the US operated Antarctic supply base at Christchurch. Here she was issued with Antarctic clothing and footwear and then waited for suitable weather for the flight between Christchurch and McMurdo air base set on the edge of the Antarctic ice shelf.

The flights for the 3864 kilometre journey between Christchurch and McMurdo base were on a Lockheed C5 Galaxy jet-powered transport of the United States Air Force. Freight occupies the main bay floor and passengers sit facing inwards on both sides of the aircraft, and in seats clipped into any unoccupied area of the cargo floor. There is one small porthole from which to catch their first sight of Antarctica.

The transit time at McMurdo Base is dependent on favourable weather forecasts at both the South Pole and McMurdo Base, and Sally had to wait several days for this to happen, but it gave her a chance to do some exploring, and see seals in their natural habitat (it was the wrong season for penguins).

McMurdo Base has three runways which are used depending on the season and whether or not the aircraft is fitted with wheels or skis. The airport is shared with the adjacent New Zealand Antarctic base. It is overlooked by Mount Erebus (*On 28 November 1979 Air New Zealand Lockheed DC10 Z-NZP crashed in to the slopes of Mount Erebus killing all on board, the worst disaster in New Zealand aviation history.*). Adjacent to McMurdo Base, within walking distance is Scott's Hut. (*This was his base for the ill-fated 1912 expedition that was beaten to the South Pole by the Amundsen Expedition. All Scott's party perished on the return journey.)*

Also at McMurdo base is a small underwater observatory, under the ice shelf, allowing views of marine life including algae on the underside of the ice. During Sally's wait-over an ice-dock was being constructed ready for the firs supply ship of the season, a photo of which, USCG Polar Star WAGB-10,(approaching the ice dock) is attached, having been emailed to Sally by one of the "overwinters".



Finally Sally was able to board a Lockheed C-130 Hercules for the 1360 km flight to the Amundsen-Scott South Pole Station, more than a week behind schedule. On this flight passengers were allowed visits to the flight deck for views of the Antarctic ice field.

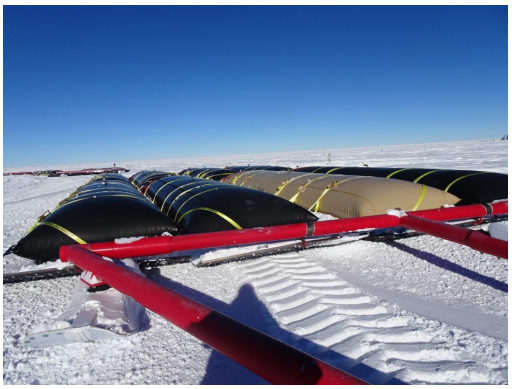
The South Pole is at an altitude of 2,835m (9,301ft) of which all but about 135m (300ft) is ice. Some visitors will suffer from 'altitude sickness' which generally occurs at altitudes in excess of 2,500m (8,000ft).

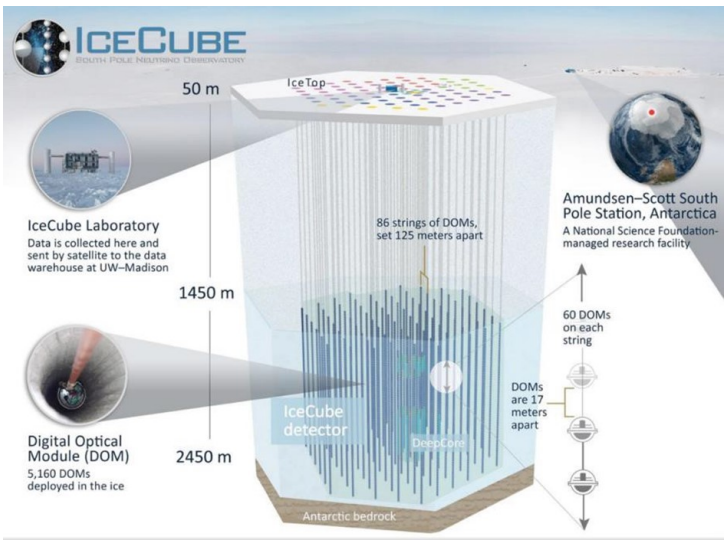
At the South Pole Station Sally joined other team members in maintenance duties on the


detector array. If the equipment was outside the first requirement usually meant digging in the snow. There was also the opportunity to drive a Pistin Bully, the multi-role snow vehicle used at both the South Pole Station and McMurdo Base.

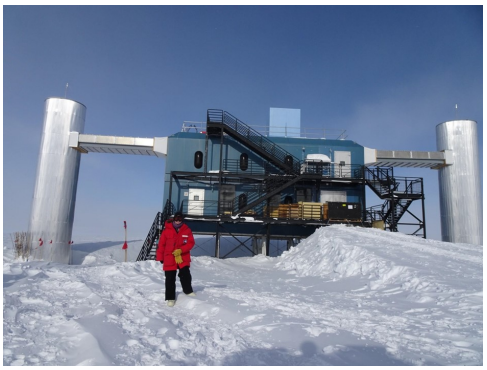
Due to the expense only passengers and time restricted freight are flown between McMurdo Base and the SPS. All other freight is sledded overland. The journey, a traverse, takes about 19 days. Everyone, medics, cooks, mechanics, take turns to drive the various tractors hauling the sleds. One sled carries an accommodation module and another sled carries a power generator to supply lighting and heat to the accommodation and to the tractors when they are parked overnight. (*Last century a Russian traverse ran out of fuel and all on board froze to death before the relief party could reach them*). Fuel for the SPS is transported in sled mounted bladders.

The detector array consists of 5,160 330mm diameter Digital Optical Modules (DOMs). There are 86 strings of DOMs set 125 metres apart. There are 60 DOMs on each string, set 17 metres apart. The lowest DOM is just above the Antarctic bedrock, apart 2450m depth, and the highest DOM in each string is about 1450m below the ice top. Each DOM contains a large diameter photomultiplier tube (A photomultiplier tube (PMT) has very low noise levels allowing the current generated by incident light, such as when 'hit' by a neutrino, to be multiplied over a million times) and a printed circuit board potted in a clear glass hemisphere. Each DOM is positioned so that the clear glass, and PMT, is pointed towards the centre of the Earth. Signals from each DOM are transmitted to the Ice Cube laboratory located on the ice top, from where the data is sent by satellite to the University of Wisconsin at Madison. UW–Madison is the lead institution for the project, and the international collaboration includes 300 physicists and engineers from the U.S., Germany, Sweden, Belgium, Switzerland, Japan, Canada, New Zealand, Australia, U.K., Korea, and Denmark. Support is also supplied by the Lawrence Berkeley National Laboratory's (Berkeley Lab's) National Energy Research Scientific Computing Centre (NERSC) at San Francisco.






Neutrinos are abundant subatomic particles that only very rarely interact with matter, generally passing through everything. About 100 trillion neutrinos pass through our body every second. However high-energy neutrinos are seen by the IceCube detector array, although they do not directly observe neutrinos, but instead measure flashes of blue light, known as Cherenkov radiation, emitted by muons and other fast-moving charged particles, which are created when neutrinos interact with the ice, and by the charged particles produced when the muons interact as they move through the ice. By measuring the light patterns from these interactions in or near the detector array, IceCube can estimate the neutrinos' directions and energies. The cover of Science magazine is a representation of the light produced when muon interacts with the ice.



Sally Robertson advised that the Antarctic array is the only array currently operating year round. The Russians operate an array on Lake Baikal, but only when it is ice free, and the Italians are setting up an array in the Mediterranean which will not operate during the winter.

At the end of the presentation, Sally was thanked by Captain Phillips and by applause from those present.

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## Kick 'em Jenny Kicking Up Again

Posted: 15 Mar 2018 07:10 AM PDT

My favourite underwater volcano is getting frisky again. Kick 'em Jenny is located off the northern coast of Grenada, in the Lesser Antilles. It rises almost a mile from the ocean floor and is roughly 600 feet below the surface. Recently, the government of Grenada has raised the alert level to orange and has imposed a 5km vessel exclusion zone around the volcano, suggesting an imminent eruption. Operators of boats and ship are advised to stay clear. The volcano is on the shipping route from St Vincent to Grenada.

Kick 'em Jenny has erupted at least a dozen times since its first recorded eruption in 1939. The last eruption was in 2015. The 1939 eruption caused a 900' high ash cloud to shoot up from the sea's surface. Most eruptions since then have been much smaller. Nevertheless, these smaller eruptions can be dangerous as they pump large quantities of volcanic gasses into the water above the volcano, reducing the buoyancy of the sea water, which could cause vessels to sink.

There have been no documented deaths from Kick 'em Jenny, but the volcano may be implicated in the greatest maritime tragedy to hit Grenada in modern times — the loss of the schooner Island Queen in 1944.

From the Seismic Research Centre website: "Submarine volcanoes release large quantities of gas bubbles into the water, even in quiet times between eruptions. This can lower the density of the seawater above the vent. This is very dangerous to shipping, because boats entering a zone of lowered water density will lose buoyancy and may sink."

On the 5th August 1944, the wooden schooner Island Queen, with over 60 people on board, disappeared between Grenada and St. Vincent. At the time it was thought that a German or allied submarine had torpedoed the boat. These theories, however, cannot easily explain the total lack of debris after the boat's disappearance. However, if a boat sinks because of lowered water density everything would sink.

Kick 'em Jenny had, in fact, erupted the year before (1943), and it is highly likely that it was still actively degassing in 1944, without any signs at the sea surface of such activity.

https://youtu.be/xIb5SbByHts Thanks to Phil Leon for contributing to this post.

The post Kick 'em Jenny Kicking Up Again appeared first on Old Salt Blog.

*Source: MNA Circular 2018-06 180331.*

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## RMS St. Helena to Return as Anti-Piracy Armory in Gulf of Oman

April 17, 2018 by Reuters

By Joe Brock JOHANNESBURG, April 17 (Reuters) – The RMS St. Helena, Britain's last working postal ship, was for nearly three decades the main source of contact between one of humanity's remotest islands and the outside world.

RMS *St Helena* berthed in Cape Town, South Africa April 17, 2018. REUTERS/Mike Hutchings

Now the ship, cherished by the 4,500 residents of British-ruled St. Helena, will start a new life as a floating armory, packed with automatic weapons, bullet-proof jackets and night vision goggles, all stored for maritime security operatives.

Renamed the MNG Tahiti, the 340-foot ship will undergo some tweaks before sailing to the Gulf of Oman where it will be used to ferry guns and guards to passing vessels navigating stretches of water lurking with pirates, its new operator said on Tuesday.

"The ship is good to go with a few adjustments," said Mark Gray, a former British Royal Marine and founder of floating armory firm MNG Maritime. "By the middle of the year we hope to have her operating."

Tahiti Shipping, a subsidiary of MNG Maritime, bought the ship for an undisclosed fee on Tuesday, the St. Helena government said in a statement.

The construction last year of a commercial airport on the isolated island in the middle of the South Atlantic rendered the 156-passenger ship obsolete, prompting St. Helena authorities to put it up for sale and begin planning a gala farewell.

Before weekly flights to South Africa began in October, a five-night voyage to Cape Town on the RMS St. Helena was the only major transport route off an island made famous as the windswept outpost where French emperor Napoleon Bonaparte died.

The yellow-funneled ship was purpose-built by the British government in 1989 to service the island and is the last of a royal mail fleet that once connected the far-flung tentacles of the old British Empire.

Its final voyage was marked with a public holiday on St. Helena, with flag-waving crowds gathering on the rocky coastline to catch one last glimpse of the ship that had delivered them everything from car parts to Christmas turkeys.

A flotilla of fishing vessels and yachts flanked the ship with those on board popping champagne corks as plumes of balloons were released into the sky to cheers from St. Helena residents, known locally as "Saints."

"I fully appreciate the role this vessel has played in all Saints' lives," MNG Maritime's Gray said. "It is not a responsibility we take on lightly. We will continue to treat her in the manner to which she has become accustomed." (Writing by Joe Brock Editing by Mark Heinrich)



*Source:gCaptain 180418*

# A bridge so far: China's controversial sea link pulls out all stops

The 420,000 tonnes of steel used for the project represent 60 times the amount used in the Eiffel Tower

*Published: 15:36 March 29, 2018*

*AFP*

Image Credit: Bloomberg

A boat sails towards a section of the Hong Kong-Zhuhai-Macau Bridge (HZMB) standing offshore in Zhuhai, China, on Wednesday, March 28, 2018.

Hong Kong: Touted as an engineering wonder, the world's longest sea bridge, which connects Hong Kong, Macau and mainland China, includes a snaking road crossing and an underwater tunnel and reportedly uses enough steel to build 60 Eiffel Towers.

Nine years after construction began on the 55-kilometre crossing, a preview organised by the Chinese government this week offered a first peek into the megaproject.

The bridge will link Hong Kong to the Chinese city of Zhuhai and the gambling enclave of Macau, cutting across the waters of the Pearl River estuary

Although the opening date has not been confirmed, officials expect the bridge to be in use for 120 years and say it will boost business by cutting travel time by 60 per cent.

The 420,000 tonnes of steel used for the project represent 60 times the amount used in the Eiffel Tower, China's official Xinhua news agency said.

Gao Xinglin, the bridge's project planning manager, said the construction of the 6.7-kilometre underwater tunnel gave him sleepless nights.

"There were many when I couldn't asleep, because there were too many difficulties during construction," Gao told reporters on Wednesday.

"Linking the 80,000-tonne pipes under the sea with watertight technology was the most challenging," he added.

The total price tag for the project, which includes artificial islands, linked roads and new border-crossing facilities, is unclear, but some estimates run to over 100 billion yuan ($15.1 billion), leading critics to slam it as a costly white elephant.

Opponents in Hong Kong say the project is part of Beijing's drive to tighten its grip on the semi-autonomous city.

Dogged by delays, budget overruns, accusations of corruption and the deaths of construction workers, the bridge failed to open by the end of 2017 as hoped.

There have also been safety concerns after 19 lab workers were charged over faking concrete test reports, with one man jailed last December.

*Source: Shipping News.*

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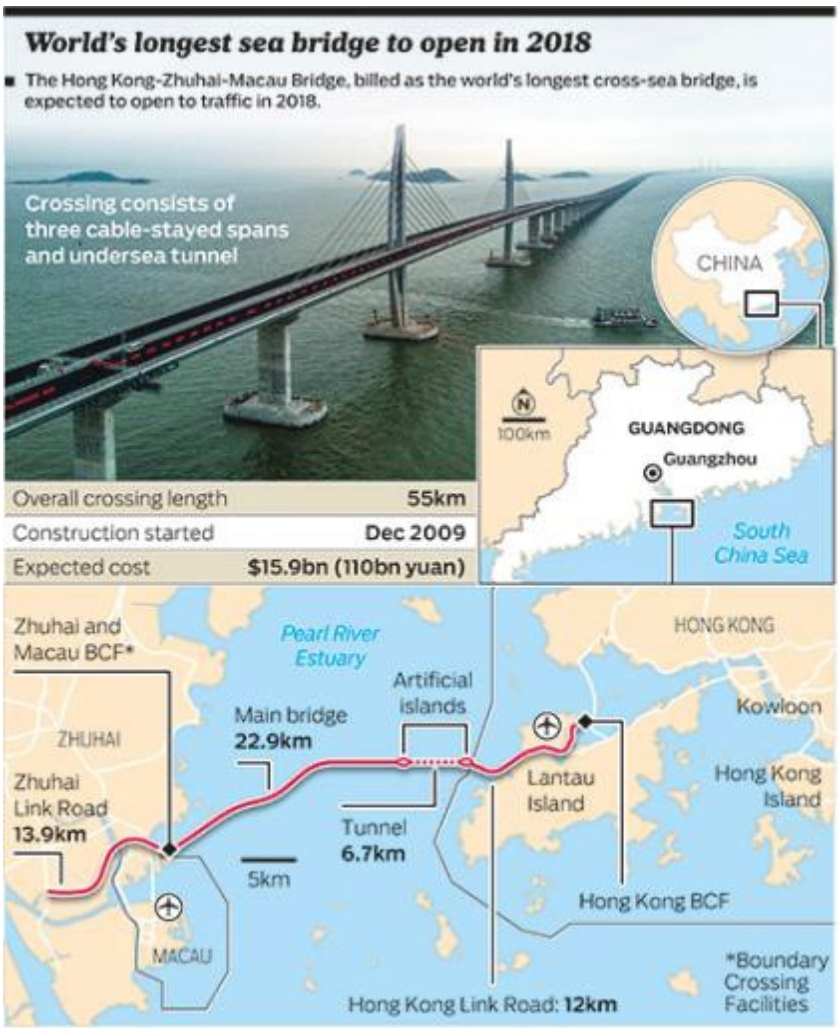


# World's First Deepsea Mining Support Vessel Launched

**Nautilus New Era**

2018-03-29 17:50:57

Nautilus Minerals' production support vessel *Nautilus New Era* was launched at the Mawei shipyard in China on Thursday. The dynamically-positioned vessel will be used by Nautilus and its partner Eda Kopa (Solwara) Limited to undertake deep-sea mining operations at the Solwara 1 Project site, in the Bismarck Sea off Papua New Guinea.


Solwara 1 is expected to be the world's first commercial high-grade seafloor copper-gold mine project. The deposits at Solwara 1 are associated with high grade polymetallic sulfides that are rich in copper and gold. Based on drilling results, indicated resources are 1,030,000 tons of ore containing 7.2 percent copper. The average copper grade today for land-based copper mines is 0.6 percent, says Nautilus. In addition, gold grades of well over 20 g/ton have been recorded at Solwara 1, and zinc and silver will also be extracted.

Mike Johnston, Nautilus' CEO commented at the launch, "We believe that mining the seafloor for much needed minerals will be a more cost effective and environmentally friendly source of obtaining high grade copper, gold and silver. Nautilus further differentiates itself from others by having a "first-mover advantage" which is protected by intellectual property and 20 patents. Once our new vessel is delivered, and subject to final funding, mining operations at 1,600-meter water depth is anticipated to commence in late 2019."

The *Nautilus New Era* will have accommodation for up to 180 people and will generate approximately 31MW of power. Delivery is scheduled for March 31, 2019.

Nautilus Minerals successfully completed submerged trials of its seafloor production tools in Papua New Guinea in February this year. Each of the machines, a bulk cutter, an auxiliary cutter and a collection machine, weighs around 250 tons. All three will operate at depths of around 1,500 meters (4,900 feet) in temperatures of 2.6°C. The machines are designed to break rock with much greater force than land machines and must operate at low temperatures to avoid overheating.

The auxiliary cutter prepares the rugged seabed for the more powerful bulk cutter. The two tools gather the excavated material; the third, the collecting machine, will collect the cut material by drawing it in as a seawater slurry with internal pumps and pushing it through a flexible pipe to the sub-sea pump, and on to the support vessel above, via the riser and lifting system.

The machines will be remotely controlled from *Nautilus New Era*.

Earlier this year, the Government of Papua New Guinea granted a two-year exploration license to Nautilus. Work done in the area by the company has identified numerous exploration targets with similar geology to the deposits found at Solwara 1. The oceans have significant potential to provide the key minerals (copper, gold, silver, zinc, nickel, cobalt and manganese) needed by the world as it transitions to a low carbon future based on electric vehicles and batteries, says Nautilus.

# Researchers Map Seven Years of Arctic Shipping

April 12, 2018 by gCaptain
By knyazev vasily / Shutterstock

The Arctic's declining sea ice has meant more opportunities for the shipping industry to expand its use of the region that in decades past was unnavigable for the vast majority of the year.

The Northwest Passage through Canada and the Northern Sea Route, or Northeast Passage, north of Russia and Siberia, are both valued because they could significantly shorten ship transit times between Asia, Europe, and North America.

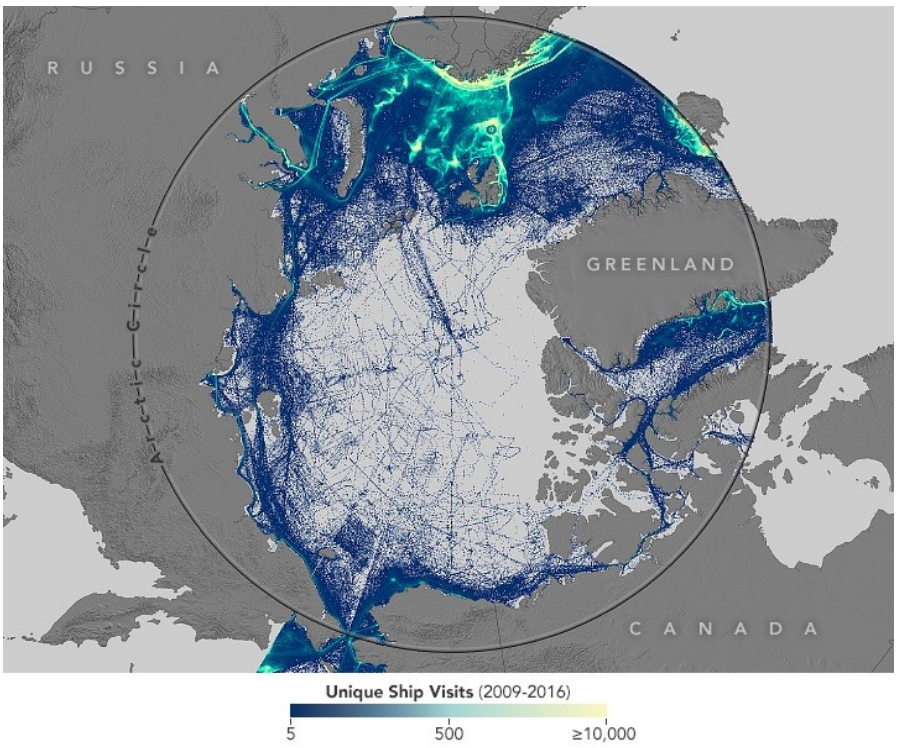
In August 2017, a newly designed LNG carrier with an ice-hardened hull became the first merchant ship to sail across the Arctic Ocean without the aid of an icebreaker. The vessel, the *Christophe de Margerie*, made the voyage in just 19 days, nearly a week faster than the traditional route through the Suez Canal.

In February, a similar tanker, the *Eduard Atoll*, completed its own unescorted trip through the region in the dead of winter, marking another historic first. During that voyage, the vessel sailed South Korea to Sabetta terminal in northern Russia, where it loaded LNG produced at a new $27 billion plant and transported it to France.

To illustrate this increase in ship activity in the Arctic, a team of scientists has banded together to analyse and map more than 120 million data points in order to track where ships are most using the region.

To make the map, the team, led by Paul Arthur Berkman, director of the science diplomacy centre at Tufts University, and Greg Fiske, a geospatial analyst at the Woods Hole Research Centre, used data compiled by SpaceQuest, a company which designs microsatellites that can monitor the track Automatic Identification System (AIS) signals from ships.

Once the data was plotted, there were some interesting observations to be made.




The map (left) shows unique ship visits to Arctic waters between September 1, 2009, and December 31, 2016. Credit: NASA Earth Observatory

Looking at the data, Berkman, Fiske, and their colleagues found that the mean centre of shipping activity moved 300 kilometres north and east—closer to the North Pole—over the 7-year span.

Notably, they were particularly surprised to find more small ships, such as fishing boats, wading farther into Arctic waters. The team also plotted the AIS ship tracks against sea ice data from NSIDC and found that ships are encountering ice more often and doing so farther north each year.

Despite the seemingly growing opportunities for shipping, the increasing number of ships in the region has given rise to serious concerns about pollution, oil spills, and disturbances to marine life, among other possible impacts.

Berkman is the coordinator and lead investigator of Pan-Arctic Options, which provides objective information that can guide the placement of infrastructure and the management of activities such as search and rescue and pollution response.

Now whether or not open Arctic waters will be long-term boon for shipping remains to be seen, but scientists agree that the melting trend does not bode well for the Arctic environment as we have known it.

"Arctic sea ice cover continues to be in a decreasing trend, and this is connected to the ongoing warming of the Arctic," said Claire Parkinson, a climate scientist at NASA's Goddard Space Flight Centre. "It's a two-way street: the warming means less ice is going to form, and more ice is going to melt. But also, because there is less ice, less of the Sun's radiation is reflected off of Earth, and this contributes to the warming."

*Source: gCaptain 180413*

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## Gasoline Exports Surge In China

July 23, 2017 by Bloomberg

China's diesel and gasoline exports surged in the first half of the year as a domestic supply glut and slowing demand growth prompted refiners to sell more fuel abroad.

Diesel shipments jumped almost 21 percent in the first six months compared to the same period a year ago, averaging about 328,500 barrels a day, according to Bloomberg calculations based on data posted Sunday on the website of the General Administration of Customs. Gasoline exports rose 8.1 percent, averaging nearly 222,000 barrels a day.

China's state-run fuel makers have sent more fuel overseas to draw down stockpiles that have swollen thanks to a refining capacity glut and higher production from independent refiners, known generally as teapots. Meanwhile, the nation's gasoline and diesel demand growth has been slowed by alternative transportation such as shared bicycles, as well as gas-fed vehicles and electric cars, according to ICIS China, a Shanghai-based commodity researcher.

"Alternative transportation has taken a notable toll on consumption of traditional fuels this year," Lin Jiaxin, an analyst with ICIS China, said before the data were released. "With new refining units coming online in the second half of the year, refiners will have to ship even more overseas."

Average gasoline demand in China, the world's biggest energy user, will grow by 95,000 barrels a day this year, "dramatically" below gains of 230,000-290,000 barrels a day during the prior two years, the Paris-based International Energy Agency said in a report this month.

The use of shared bikes in big cities may replace 1.27 million metric tons of gasoline demand this year while natural gas cars have already displaced 22 million tons of fuel used in transportation in 2016, according to Guo Yifan, an analyst at Shanghai-based Sinolink Securities.

The nation's gasoline exports totalled 4.81 million tons in the first half of the year, with 770,000 tons shipped in June, Sunday's data showed. Diesel shipments totalled 7.97 million tons between January and June, with exports at 1.31 million tons last month.



*Source: gCaptain 180413*

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## Saudi Supertanker Fully Laden with American Oil Arrives Off China

April 12, 2018 by Mike Schuler

A Saudi supertanker carrying the first export cargo from the United States' only port capable of handling the world's biggest oil tankers has arrived off China.

According to the website, TankerTrackers.com, the Very Large Crude Carrier (VLCC) *Shaden* has now arrived at an offshore anchorage at the Port of Rizhao.


The company has been tracking the Saudi Arabian-owned *Shaden* since it departed the U.S. Gulf Coast in February.

The tanker is laden with 2 million barrels of oil that was loaded at the Louisiana Offshore Oil Port, or the LOOP.

The LOOP, which is located in deeper water about 18 miles off of the Louisiana coast, is currently the only deep-water port in the U.S. capable of handling the world's biggest.

*Shaden*'s departure marked the first time a fully laden supertanker sailed from an American port. Since then, at least one other VLCC has loaded at the port.

The United States lifted a 40-year ban on most crude oil exports in late 2015, reshaping the global energy map. Since then, China and other Asian countries have emerged as big buyers of American crude.

*Source: gCaptain 180413*

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## Maersk precautionary measures following the *Maersk Honam* fire.

There are reports that following the fire on board the ultra large container ship *Maersk Honam*, Maersk have acted to limit the stowage of dangerous IMDG cargos in areas close to residential areas and machinery spaces. Maersk insist these steps are purely precautionary and advise that all dangerous cargo on the fire-stricken containership was loaded in accordance with the IMDG code. They are also carrying out inspections of containers and loads on other vessels which have the same shipper, freight forwarder or commodity combination as those near where the fire is reported to have started. They also advise that on the basis of their records there was no calcium hypochlorite on board.

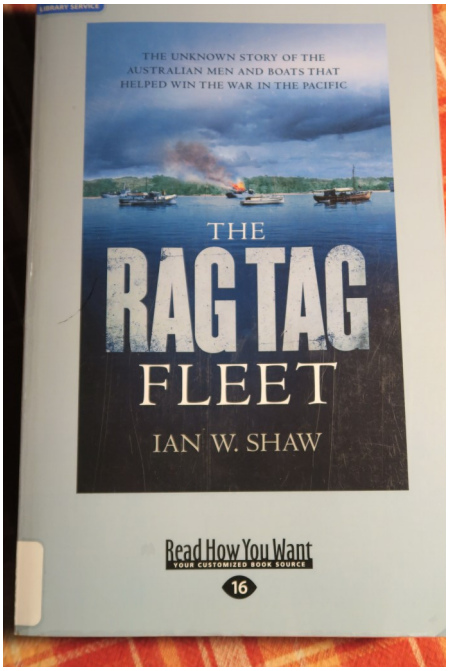
*Source: Flashlight 184.*

## Book Review

## The Rag Tag Fleet

By Ian Shaw

This a very detailed but readable account of the vital part that Australian men and small boats played in the supply of munitions, food, drugs and medical equipment, and anything else to the US and Australian troops engaged on the attack on Bona on the New Guinea east coast




The main obstacle was supplying the Allies with stores. The land was swampy jungle, unsuitable for air fields and/or aerial supply drops, and the waters off the coastline were mostly uncharted and too shallow for seagoing vessels. The US government sought the advice of two American brothers, who, in pre-war days, had spent their "gap time" sailing around the PNG waters, and then engaged them to implement a solution. Their answer was to search up and down the east coast of Australia for shallow draft vessels, such as fishing and small trading vessels. The next problem was to find crews as the ideal persons were already serving in RAN. The solution was to recruit men, not American and mostly Australian, with nautical experience who were either too old, too young, or unfit for military service, who were engaged as civilians on individual six-month contracts. The vessels operated under the US flag and were controlled by a special unit of the US Army.

Due to their ignorance of the jungle terrain and weather conditions, US Army command (including General MacArthur) in Port Moresby assumed that air support would deliver supplies and munitions to the troops, which proved to be impossible. As a result, these virtually defenceless vessels became the sole supply line, while under intense Japanese air attack.

Mostly, the vessels' movements had to be carried out at night to avoid Japanese air attacks, which added to the hazard of operating in poorly charted waters. Some of the smaller vessels had to be beached at high tide under cover of trees, and then, after the cargo had been discharged, re-floated on the next night time high tide.

Ultimately, Bono was captured, and more purpose designed water craft became available. The war moved on to the Philippines and into the Pacific. The rag tag fleet was replaced with more suitable craft. The civilian contracts expired; some of the men returned to their previous employment, some renewed the contracts and saw service in the Philippines and others joined the US Army.

Sadly, as the crews were not Americans but civilians working for the US Army, they were ineligible for any awards, Australian or American. This book is a worthy tribute to the bravery, ingenuity and tenacity of the crews.

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## Roboats in the Canals of Amsterdam

Posted: 18 Mar 2018 09:21 AM PDT

Autonomous barges may soon be carrying cargo and passengers on Amsterdam's 100 km of canals. Referred to as roboats (as in robot boats, not rowboats) they can also be linked together to create bridges and performance stages and platforms. The roboats are a pilot project led by the Massachusetts Institute of Technology (MIT) and the Amsterdam Institute for Advanced Metropolitan Solutions (AMS).

In addition to carrying cargo and being linked up as temporary structures, researchers also see the potential for monitoring water quality and cleaning up floating garbage. Arjan van Timmeren, AMS Institute's scientific director, told the Global Construction Review: "We could, for instance, do further research on underwater robots that can detect diseases, or use Roboats to rid the canals of floating waste, and find a more efficient way to handle the 12,000 bicycles that end up in the city's canals each year."

The project, which has $25 million in funding, is expected to last five years.

Thanks to Roberta Weisbrod for contributing to this post.

The post Roboats in the Canals of Amsterdam appeared first on Old Salt Blog.

*Source: MNA Circular 2018-06 180315*

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## Hamburg's largest container ship to-date entered port on 15 March 2018

The *CMA CGM Antoine de Saint Exupéry* set a new record on 15 March 2018 as being the largest containership to call at the port of Hamburg, Germany. The vessel, which has a carrying capacity of 20,766 teu, discharged some 7,000 containers and loaded 4,000 more before departure on 17 March 2018. Fifty years ago, the first containership to call at Hamburg was the *American Lancer* which could carry 1,200 teu. *Source: Flashlight 184*

## Singapore developing collision prevention AI tech

The technology is aimed at preventing collisions like the one between US destroyer USS *John S McCain* and merchant ship *Alnic MC* in the Singapore Strait in August 2017. Photo: US Navy

Fujitsu Limited, Singapore Management University (SMU), and A*STAR's Institute of High Performance Computing (IHPC) have partnered up to develop new technologies for vessel traffic management in the Port of Singapore.

The project will be supported by the Maritime and Port Authority of Singapore (MPA).

As explained, the predictive technologies will leverage the power of artificial intelligence (AI) and big data analytics to optimize the management of Singapore's port and surrounding waters, which sees an immense volume of seaborne trade and traffic.

The technologies will also be validated using real-world data to improve the forecasting of congestion and identification of potential collisions and other risk hotspots before they occur at sea.

The research and development for these new maritime technologies has been conducted under the guidance of the Urban Computing and Engineering Centre of Excellence (UCE CoE), a public-private partnership consisting of the Agency for Science, Technology and Research (A*STAR), SMU, and Fujitsu, that was established in 2014. The outcomes of this research and development phase, as well as the practical knowledge and experience gained through the project trials, will be integrated into Fujitsu's future maritime solutions.

As a result of the collaboration between the trio, several technologies are being developed for improving the management of maritime vessel traffic. These include predictions models, risk and hotspot calculation models and intelligent coordination models.

These technologies will eventually be integrated and test-bedded for their potential to enhance navigational safety, such as the ability to detect and recognize a near-miss risk prior to the event — e.g. 10 minutes beforehand — by combining short-term trajectory prediction with risk calculation. Another target is to forecast and mitigate the dynamically changing hotspot before it is generated — e.g. 30 minutes beforehand — by integrating long-term traffic forecasts, hotspot calculation, and intelligent coordination models.

*"Multi-agent technology has been used extensively in coordinating the movements of unmanned aerial vehicles and unmanned ground vehicles. In this project with MPA, SMU is breaking new ground in research by proposing a next generation maritime traffic coordination technology that is akin to air traffic control, yet respecting major differences and constraints between air and sea navigation. With the advent of autonomous ships, this technology can potentially disrupt vessel traffic management to reduce human errors and improve navigational safety,"* Lau Hoong Chuin, SMU's Lab Director and Lead Investigator of the UCE CoE, said.

Last year, a fatal collision between the US Navy ship USS *John S McCain* and the merchant ship *Alnic MC* occurred in the Singapore Strait, resulting in ten fatalities on the navy destroyer. It was caused by a sudden turn by the destroyer, which put it in the patch of *Alnic MC*. The USS *John S McCain's* sudden turn was due to a series of missteps that took place after propulsion controls were transferred, Singapore's Transport Safety Investigation Bureau said earlier in a report.

The new technologies are expected to predict and prevent such collisions in the future.

*Source: Navy Today 180417*

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## Flinders Adelaide Container Terminal appoints new GM

Former Flinders Adelaide Container Terminal (FACT) Operations Manager David Sleath has been promoted to the role of General Manager at the terminal.

Mr Sleath was officially appointed to the role in February 2018, where he takes over the reins from Steve Cox who departed the role in late 2017.

Mr Sleath has a vast knowledge of the operational requirements of the container terminal as he held the role of Operations Manager for seven years. He has extensive experience in the daily workings of the terminal and working constructively with FACT's clients and stakeholders.

Stewart Lammin, CEO of Flinders Port Holdings commented that "we are pleased to have appointed David into the General Manager's role. David is highly experienced and knowledgeable professional who is well known and respected in the industry. During his time at FACT, he has constantly demonstrated his commitment to industry best practice with respect to workplace safety, efficiency and customer service."

*Source: SAFC Freightlog March 2018*

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