The Porthole

Volume 18 No. 06 June 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

Greetings to all our readers,

Another month slips past without leaving much trace; our Southern Hemisphere shortest day is gone, and things in general are looking up. The Stock Market is at a peak, and although not officially announced yet, the 'shipbuilding' outlook for Adelaide is looking more promising than it has in years, always assuming that we can find enough qualified people to do the construction work without having to look outside Australia.

Our recent rains, while being very gratefully received, were soaked up by the parched paddocks with almost zero run-off, leaving my dams' water levels unchanged from before...

On the Federal front, nothing much has happened recently, except the sad news that Casper, our Queensland stalwart, has lost his wife after a long illness, for which I have expressed our condolences.

Please enjoy this magazine, and I hope to see many of you at our luncheon meeting next Wednesday at the Largs Pier Hotel.

Happy Sailing

Bob Westley (BM)

Speaker: David Sleath, who will speak about future developments at the Flinders Adelaide Container Terminal.

The next Branch meeting will be held at the Largs Pier Hotel, 198 The Esplanade, Largs Bay, on Wednesday, 27th June, 2018, at 1145 for 1200.

Please confirm your attendance at the lunch or register your apology before 1200 on Monday, 25th June 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:

San Jose's 310 year oldwreck found off Colombian coast.	2
Caribbean Fantasy fire reveals poor safety culture.	3
China's drone boats.	4/5
Shell's *Prelude* FLNG goes live off WA coast.	5/6
The Falkirk Wheel	*6*
Historic vessels at the SA Maritime Museum	7/8
BRANCH MEMBERS ONLY	
May 2018 Branch meeting minutes	9/10

San Jose, the gold-laden 'holy grail of shipwrecks', found off the coast of Colombia

Updated Wed 23 May 2018, 3:57pm

A **Spanish galleon, laden with gold, that sank off the coast of Colombia more than 300 years ago, was found three years ago by an underwater autonomous vehicle operated by the Woods Hole Oceanographic Institution (WHOI), the agency has disclosed.**

The ship's fate is captured in an 18th-century oil painting. (Wikimedia Commons)

New details about the discovery of the *San Jose* were released with permission from the agencies involved in the search, including the Colombian government.

"We've been holding this under wraps out of respect for the Colombian government," said WHOI's vice president for marine facilities and operations, Rob Munier.

The exact location of the wreck of the *San Jose*, often called the "holy grail of shipwrecks", was long considered one of history's enduring maritime mysteries.

The 62-gun, three-masted galleon went down on June 8, 1708, with 600 people on board as well as a treasure of gold, silver and emeralds during a battle with British ships in the War of Spanish Succession.

The treasure would be worth as much as $US17 billion ($22.5 billion) by modern standards.

Sonar discovered the wreck in 600 metres of water.

The Massachusetts-based WHOI was invited to join the search because of its expertise in deep water exploration.

Photographs of the *San Jose's* cannons helped to identify the wreck. (AP: WHOI)

The institute's autonomous underwater vehicle, REMUS 6000, helped find the wreckage of Air France 447 in 2011, which crashed in 2009 several hundred miles off the coast of Brazil.

It was REMUS 6000 that in November, 2015, took some side sonar images that found the San Jose in more than 600 metres of water.

The vehicle descended to nine metres above the wreck to take several photographs, including some of the distinctive dolphin engravings on the *San Jose's* cannons, a key piece of visual evidence.

"The wreck was partially sediment-covered, but with the camera images from the lower altitude missions, we were able to see new details in the wreckage and the resolution was good enough to make out the decorative carving on the cannons," said WHOI engineer and expedition leader Mike Purcell.

"It was a pretty strong feeling of gratification to finally find it," said Mr Munier, who was not at the site but learned in a phone call from Purcell. "It was a great moment."

The treasure has been the subject of legal battles between several nations as well as private companies.

Several weeks ago, UNESCO, the United Nations cultural agency, called on Colombia not to commercially exploit the wreck, whose exact location remains a state secret.

As for the treasure, that remains on the sea bed — for now.

First posted 23 May 2018, 12:31pm Wed 23 May 2018, 12:31pm

Source: ABC News

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The Real Story Behind Youtube's Most Epic Ship Collision Video

http://gcaptain.com/the-real-story-behind-youtubes-most-epic-ship-collision-video/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+Gcaptain+%28gCaptain.com%29&goal=0_f50174ef03-d79dac6ded-139894965&mc_cid=d79dac6ded&mc_eid=4c72dd3685

NTSB Cites Poor Safety Culture in Fire Investigation

June 6, 2018 by gCaptain

"The *Caribbean Fantasy* had been detained 3 times in the years immediately before the fire, yet no red flags went up," commented NTSB Chairman Robert Sumwalt.

Coast Guard and other assets respond to the *Caribbean Fantasy* off the coast of Puerto Rico on Wednesday, August 17, 2016. U.S. Coast Guard Photo

The National Transportation Safety Board has determined that the fire aboard the roll-on/roll-off car and passenger ferry *Caribbean Fantasy* was caused by leaking fuel that contacted a hot surface in the ship's engine room.

The fire occurred on August 17, 2016, as the ferry was underway off San Juan, Puerto Rico, with more than 500 people on board. The Master gave the order to abandon ship, prompting a major search and rescue operation.

The probable cause was determined during an NTSB meeting on the incident on Tuesday.

Contributing to the fire's rapid spread were quick-closing valves for fuel and lube oil that were intentionally blocked open, according to the investigation. The NTSB also found that fixed firefighting systems and a structural fire boundary failed.

Also contributing to the fire and a subsequent prolonged abandonment effort was Baja Ferries' poor safety culture and ineffective implementation of its safety management system on board the Caribbean Fantasy, the NTSB found.

Adding to the severity of the fire was the failure of the Panama Maritime Authority and the recognized organization, RINA Services, to ensure the safety management system was functional.

The fire started in the main engine room of the 614-foot long, Panamanian-flagged vessel, when fuel spraying from a leaking flange contacted the hot surface of the port main engine. The fire could not be contained, and the master ordered abandon ship.

The fire burned for three days while the vessel, used for ferry service between Santo Domingo, Dominican Republic, and San Juan and Mayaguez, Puerto Rico, drifted and subsequently grounded near the port of San Juan. The fire was extinguished by shore-based firefighters after the Caribbean Fantasy was towed into the harbor.

All 511 passengers and crew aboard were rescued and 45 people were treated for non-life-threatening injuries, including knee, ankle and leg injuries, fainting, breathing difficulties and other issues. Only six injuries – ankle injuries incurred while sliding down the marine evacuation system – were considered serious.

The accident resulted in an estimated $20 million in damage and the *Caribbean Fantasy* was eventually scrapped in lieu of repairs.

As a result of the investigation, the NTSB issued safety recommendations to the to the U.S. Coast Guard, Baja Ferries S.A. de C.V., RINA Services S.p.A, the International Association of Classification Societies, and the Panama Maritime Authority.

The recommendations address machinery maintenance practices, fuel and lube oil quick-closing valves, fire protection, crew training on and familiarity with emergency systems and procedures, implementation of the company's safety management system, and oversight by Panama.

"The recommendations that we issued today, if acted upon, will improve marine safety," said NTSB Chairman Robert L. Sumwalt. "I urge the recipients to act on these recommendations so that this fortunately non-fatal fire is not remembered as the dress rehearsal for a future tragedy."

The synopsis, findings and all recommendations related to the accident are available online at https://goo.gl/4azkER

The full report will be available in a few weeks on the NTSB website.

Source: gCaptain 180606

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Robot Boats Propel One of China's Hottest Startups

June 4, 2018 by Bloomberg

By Blake Schmidt (Bloomberg) — In the vast, freezing Ross Sea, China's *"Snow Dragon"* icebreaker needed to find a safe anchorage before it could begin its mission to set up China's fifth Antarctic research station. The solution was to deploy one of Zhang Yunfei's freezer-tested boat drones to map the ocean floor.

The Chinese icebreaking research vessel MV *Xue Long* (aka *Snow Dragon*). Photo: Oceanalpha

For Zhang, it was the latest in a string of government contracts — from surveying Tibetan lakes to testing river pollution — that have helped him turn a university project into China's largest unmanned surface vessel company, one that has fired the interest of some of China's biggest venture capitalists. In a pending round of funding, Oceanalpha Co. Ltd. may be valued at $780 million — about 40 times revenue — despite never having turned a profit.

"If you look at Chinese traditional culture, we're not as close to the ocean as Western countries. But now we're getting closer," Zhang, 34, said at his offices in Zhuhai, a seaside city next to Macau. "We want to change the relationship that human beings have with the sea."

Outside, workers are building the company's new $40 million waterfront headquarters on land leased at a steep discount from the government, fashioned like a giant 10-storey catamaran, including topographical pools for testing. Alongside a private dock are prototypes of various sizes, from boats that can fit several people to motorized life savers for rescue missions.

In U.S. Gulf of Mexico, Robots and Drones Take on Dangerous Offshore Oil and Gas Work

While Shenzhen-based DJI led the charge in the competitive consumer market for aerial drones, and China has used unmanned submersibles to probe the depths of the South China Sea, Oceanalpha is one of a handful of companies around the globe specializing in ocean-going drones that operate on the surface.

"Zhang found a unique niche," said Derrick Xiong, a co-founder of EHang Inc., which is developing aerial drones for swarms, deliveries and air taxis in nearby Guangzhou.

Oceanalpha's advantage is being in China, where capital is readily available and leader Xi Jinping is promoting both technology to move up the manufacturing value chain and maritime industries to enhance the nation's overseas interests.

As its trading empire has grown, so has China's interest in the oceans, with the construction of a modern navy, trading ports and an armada of merchant vessels. It's a turnaround from what China's textbooks call the "century of humiliation," when the nation's weakness at sea allowed a period of foreign interventions beginning with the Opium Wars.

Zhang says venture capitalists began hounding him ever since his start-up won the China Innovation & Entrepreneurship competition in 2013. Zhen Fund and GGV Capital are both investors.

Singapore Wants to Start Using Aerial Drones for Remote Ship Inspections

Now, after nearly a decade focusing on research and development, Oceanalpha is expanding from water sampling and hydrological surveys into search and rescue, surveillance and other segments. The company may seek a public listing after 2020.

The big prize is cargo. Zhang has a new partnership with Wuhan University of Technology, China's Classification Society and Zhuhai municipal government that will use artificial intelligence to direct autonomous container vessels.

"There will be a huge revolution in the maritime industry within three years," Zhang said. "Cargo ships will be autonomous before cars."

The project, called Cloudrift — a reference to the Chinese legend of the monkey king, who could summon a cloud on which he travelled — is racing against rivals to build an unmanned cargo ship this year. Norway has created a test area for pilotless vessels in the Trondheim Fjord, in a joint effort by the Norwegian University of Science Technology and companies including Rolls Royce.

Cloudrift's ship would be battery powered and use China's BeiDou satellite navigation system. The 50-meter vessel would have a loading capacity of 500 metric tons and a range of 500 nautical miles per charge. The company is building a test site of its own among islands about 50 kilometres from Zhuhai, and the group is investing $10 million in cargo technology and $50 million in USV field-test development.

Zhang is in the right place. Zhuhai was one of the fastest-growing commercial ports in China last year, and the Pearl River Delta, now calling itself the Greater Bay Area as it turns high-tech, is one of China's two giant logistics regions for container ships, along with the area around Shanghai.

Raised largely in Shenzhen by parents who worked at state-owned Chinese IT companies, Zhang's path into boat drones began across the bay at Hong Kong University of Science and Technology, whose alumni include Frank Wang, founder of DJI and the first drone billionaire. Zhang and two PhD schoolmates, Cheng Liang and Wang Mingyu, convinced a chemistry professor to sell them sensors, which they mounted on a prototype to test the local seawater.

The three went on to found Oceanalpha, which now employs 260 people. Wang later left to join DJI. Cheng is general manager at Oceanalpha.

With the results of the university project, Zhang went on the road in 2009 for 10 months, showing local environmental agencies in nearly a dozen provinces how the vessels could help them collect water samples. He scored deals and started making boats that could suck water samples up through the hull and detect illegal pipelines spewing effluent into rivers.

"That trip gave us the confidence that the market needs this kind of technology," he said over sugary coffee with milk and plate-fuls of toffee candies.

Maersk to Test AI-Powered Situational Awareness System Aboard a Containership

Water sampling and hydrological surveying for government agencies and local authorities gave Oceanalpha cashflow to support research and explore other opportunities, including surveillance. In the factory paint shop, where workers put the finishing touches to different coloured drones, a camouflaged version will help China's Coast Guard monitor port security.

A recent tie-up with industry giant Teledyne Technologies Inc. will also explore strategic opportunities, Zhang said. The Thousand Oaks, California-based company didn't respond to a request for comment.

But it's Zhang's ties with Chinese government agencies that remain the impetus behind the company, in which the Zhuhai government holds a small stake. A wall of awards in his office shows photographs of Zhang with high-level Party officials. In one, he hands a model drone to Premier Li Keqiang in front of Russian Prime Minister Dmitry Medvedev. Li heads China's Made in 2025 initiative, which targets 10 areas for innovation, including maritime engineering. The program's subsidies have become a point of tension in U.S.-China trade talks.

One day Zhang hopes to have a picture with Xi, who may lead the country beyond 2023 after China recently scrapped presidential term limits. "Perhaps you'll see it next time you visit," he said.

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Source: gCaptain 180604

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Shell's Massive *Prelude* FLNG Goes 'Live' Off Western Australia

June 11, 2018 by Mike Schuler

Royal Dutch Shell's massive *Prelude* floating liquefied natural gas platform has gone 'live' off the coast of Australia after taking on board its first gas.

The 290m LNG carrier *Gallina* is dwarfed by the massive 488m *Prelude* FLNG during the LNG import operation. Photo: Shell Australia

The LNG was imported by the LNG carrier *Gallina*, arriving from Singapore, marking what was also *Prelude's* first ship-to-ship (STS) transfer.

The loaded LNG will give Shell the opportunity to test *Prelude's* LNG export systems before the subsea wells are opened at start-up later this year.

During the LNG import, the 290-metre-long *Gallina* berthed side-by-side with 488m *Prelude* and tested its free-moving offloading arms.

Once onboard, the LNG made its way – in reverse order – through process equipment and pipework to huge LNG tanks in the hull of the facility. Since the Prelude is anchored, the tanks have been designed to withstand the 'sloshing' of the product that could happen due to the movement of the facility during adverse weather.

Shell says that with the import, four of Prelude's six 39,000 m3 cryogenic LNG tanks are now full.

With gas onboard, Prelude's utilities can now switch to run on gas rather than diesel.

VP *Prelude,* David Bird, expressed excitment in reaching the milestone, but remains focused on the end goal. "It's important we take a moment to celebrate and recognize this achievement," said David. "It's equally important we don't lose sight of the end goal – the safe and reliable start-up of our incredible asset, *Prelude*, and the delivery of gas to our customers."

With the facility now 'live', *Prelude* Project Director Didrik Reymert stressed the importance of safety on board.

"The risk profile of the facility has changed fundamentally and this has a great impact on how we work," Reymert said. "Now, more than ever, we must maintain our unrelenting focus on the safety of our people and our environment."

"Introducing gas onto Prelude is an important step towards start-up, but there is a lot of work to do before we get there," he added.

The next step will be to test and ready the LNG plant on board Prelude in preparation for opening the wells. This will be followed by a period called start-up, ramp-up, after which LNG will be produced.

The 600,000 metric ton Prelude FLNG is the largest floating structure ever built. It will be permanently moored about 295 miles off the coast of Western Australia for a period of 20 to 25 years, and at its peak, it will produce and export approximately 3.6 million metric tons of liquefied natural gas per year from the nearby Prelude field.

Built in South Korea, the Prelude FLNG facility arrived in Australian waters under tow in March 2017.

Shell has said previously that it expects to start production later in 2018.

Source: gCaptain 180609

The Falkirk Wheel

The Falkirk Wheel is a rotating boat lift in Scotland, connecting the Forth and Clyde Canal with the Union Canal. The lift is named after the town of Falkirk, central Scotland, where it resides. It opened in 2002, reconnecting the two canals for the first time since the 1930s as part of the Millennium Link project.

The plan to regenerate central Scotland's canals and reconnect Glasgow with Edinburgh was led by British Waterways, with support and funding from seven local authorities, the Scottish Enterprise Network, the European Regional Development Fund, and the Millennium Commission. Planners decided early on to create a dramatic 21st-century landmark structure to reconnect the canals, instead of simply recreating the historic flight of 11 locks.

The wheel raises boats by 24 metres (79 ft), but the Union Canal is still 11 metres (36 ft) higher than the aqueduct which meets the wheel. Boats must also pass through a pair of locks between the top of the wheel and the Union Canal. The Falkirk Wheel is the only rotating boat lift of its kind in the world, and one of two working boat lifts in the United Kingdom, the other being the Anderton Boat Lift.

Source: Wikipedia

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Historic vessels at the South Australian Maritime Museum

Yelta (tugboat)

From Wikipedia, the free encyclopedia

Yelta is a steam tug which operated in the Australian state of South Australia from 1949 to 1976 within both the Port River and the waters of Gulf St Vincent immediately adjoining the river's mouth. After being laid up for about nine years, she was purchased in 1985 by the Government of South Australia for addition to the collection of the South Australian Maritime Museum as a museum ship. As of 1985, she was considered to be the only remaining steam-powered tug operating within Australian waters.

History	
Australia	
Name:	ST Yelta
Owner:	Ritch and Smith Ltd[1]
Builder:	Cockatoo Docks and Engineering Company[2]
Completed:	1948[1]
Maiden voyage:	February 1949[3]
In service:	1949
Out of service:	1976[2]
Homeport:	Port Adelaide
Fate:	Retired; sold 1985
Australia	
Name:	Yelta
Owner:	South Australian Maritime Museum
Acquired:	1985
Recommissioned:	1988
Homeport:	Port Adelaide
Status:	Museum Ship
Notes:	
General characteristics	
Length:	31.47 metres (103.25 ft)
Beam:	8.13 metres (26.66 ft)
Draught:	4.0 metres (13 ft)[2]
Propulsion:	steam engine[
Crew:	6

Yelta was built at the Cockatoo Island Dockyard in Sydney, New South Wales, during 1948 by the Cockatoo Docks and Engineering Company for Ritch and Smith Ltd of Port Adelaide, South Australia.

After an 11 day voyage from Sydney, *Yelta* arrived in Port Adelaide on 22 February 1949. Until her retirement in 1976, she assisted vessels to and from docks and other facilities within the Port River. She also assisted in refloating vessels that ran aground within the Port River, such as *Eastwave* in 1950, *Caltex Bombay* in 1952, and *Ulooloo* and *Trykori* in 1953.

Yelta was retired from service in November 1976. The Port Adelaide branch of the National Trust of South Australia purchased the vessel, with the objective of making "a feature of a maritime museum on a lease it holds on land on Cruickshank corner near the Birkenhead Bridge." The plan for a maritime museum did not proceed due to the plans of the Government of South Australia to develop facilities for the South Australian Maritime Museum. In 1985, the National Trust offered the vessel for sale by tender in order to recover some of the costs expended on its own museum proposal, and subsequently accepted an offer from the South Australian government, who added the vessel to the collection of its maritime museum.

The vessel was restored by South Australian Maritime Museum in order to "operate as both a floating museum and functional passenger vessel." Using a team of "retired and semi-retired volunteers with lengthy and comprehensive experience in various maritime industries," the vessel was re-launched on 5 October 1988 after three years of restoration.

In 1985, *Yelta* was reported as being "Australia's last working steam-powered tug". In 2017, it was described as a "historic vessel with strong associations with Port Adelaide, it is the only steam vessel on the river."

MV *Nelcebee*

From Wikipedia, the free encyclopedia

The MV *Nelcebee* is an auxiliary schooner that served the South Australian coastal trade from 1893 to 1982.
Nelcebee was built at Rutherglen in Scotland by Thomas Seath. It was assembled and tested before being broken into parts and shipped to South Australia, where it was reassembled by Thomas Cruickshank in Port Adelaide.

Nelcebee commenced service as a tug and lighter at Port Pirie, gradually being replaced in its tug role with improved designs, until it was sold in 1927.

Nelcebee was then refitted with a diesel engine and given two masts. It commenced operation in the South Australian coastal

trade from 1928, serving Spencer Gulf and Gulf St Vincent ports and carrying loads such as wheat, gypsum, and minerals. In 1962 the vessel was sold to R Fricker and Company, and commenced working to supply Kangaroo Island until it was retired in 1982.

Nelcebee was the second to last ketch operating in the South Australian coastal trade along with *Falie*. Upon retirement, it was the third oldest vessel on Lloyds Register of Shipping. It is now held by the South Australian Maritime Museum.

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History	
	Australia
Cost:	£7,000
Commissioned:	1883
Decommissioned:	1982
Fate:	To South Australian Maritime Museum
Status:	Museum Ship

General characteristics	
Type:	Steam tug and lighter (1883-1927) Motor ketch (1927-)
Length:	32.61 metres
Beam:	5.69 metres
Draft:	2.79 metres
Installed power:	Steam (1883-1827) Diesel (1927-)
Sail plan:	Ketch (1927-)

Pontcysyllte Aqueduct, Llangollen Canal