# The Porthole

**Volume 17 No. 9 September 2017**

***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

Nothing to report on Federal matters except that the next meeting of the Federal Court will be two days after our September Branch meeting.

I draw members' attention to the minutes of the last Branch meeting in which I announced that I would be standing down as Branch Master at the end of this year.

The Branch has this week received an invitation to join the Merchant Navy Association and the Vindicatrix Association in sponsoring a flag pole to fly the Merchant Navy Ensign at the rebuilt Victor Harbor War Memorial. There are seven flag poles as part of the Memorial, each with its own sponsor. If the invitation is accepted the cost to the Branch would be about $1,000.00. If you hold a view on this matter then please attend the Branch meeting and make your vote count.

We are experiencing a dearth of guest speakers so if you have any suggestions please let us know.

Best Wishes

Paul P

Branch Master

## Speaker:Bob Buchanan

## "Cruise from Amsterdam to Budapest"

**The next Branch meeting will be held at the Largs Pier Hotel, 198 The Esplanade, Largs Bay, on Wednesday, 27th September 2017 at 1145 for 1200.**

**Please confirm your attendance at the lunch or register your apology before 1200 on Monday, 25th September 2017 with Paul Phillips (0407 779 209) 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:

## Tony Wynne's Maritime Career

A summary of a talk given to Branch members on 30 August 2017

Tony joined the RAN at 17 as an Ordinary Seaman, rising to Leading Hand, and then undertook specialist training as a Specialist Duties Officer. In 1970, Tony was sent to the Royal Navy Engineering College at Manadon, Plymouth. While at the College, Tony was very active in the sailing club, skippering one of the college's Laurent Giles 43 foot yachts. Inter-establishment and inter-service racing rivalry was very high, and Tony participated in numerous ocean races and cruises from Plymouth to St. Malo, France. On completion of his training at Manadon, Tony was posted as the engineer officer on the RN Oberon Class submarines ,during which time he served as a watch keeping officer on active service in Viet Namese waters. Tony noted his UK posting was considerably extended as the RAN had apparently lost track of him. Eventually, however, he was recalled to Australia where he continued to serve as a senior engineer in the RAN's Oberon Class submarines, based at the HMAS Platypus submarine base in Neutral Bay, Sydney. He continued his sailing in Sydney, having purchased *Ariki*, a 35 foot GRP yacht, fitted out in huon pine, which he kept at the base. Tony's last job in the RAN was a shore position as a senior engineer officer at HMAS Platypus.

*Oberon*-class submarine HMS *Ocelot* 1989

Ariki

In due course, Tony decided to retire from the RAN, and, as he put it, he merely had to walk along the quay, load his personal gear on his boat and cast off, heading through Sydney Heads and turning left. Heading north, Tony eventually reached Mackay, where he decided to brush up his French with the intention to make a cruise to Noumea. To this end, Tony enrolled in a French course at the local TAFE. Tony's French teacher became his wife and together they made preparations for the ocean race from Mackay to Noumea, which, in due course, they completed and were successful in winning their class.

Collins-class submarine HMAS *Rankin*

Tony then took up a shore-based position as Chief Engineer on the Seahorse Spirit, owned by Defence Maritime Services (DMS), and operating from Osborn, Port Adelaide. DMS was originally a P&O company doing outsourced work for the RAN. This has proved to be a more economical way to carry out refit trials, mother ship work and other tasks.


Diving Support Vessel *Seahorse Spirit*

The Seahorse Spirit was fitted with a 'moon pool' through the after deck. The moon pool could be utilised to lower submarine rescue and other equipment including divers. A sister ship, Seahorse Standard, operated in Western Australia.

Tony had a supervisory role with the Collins Class submarines until retirement from the industry. He also did a stint as an exclusive surveyor for Bureau Veritas, and later, as a non-exclusive surveyor, as part of Tony's marine business.

On conclusion of his talk, Tony answered numerous questions about the operation of submarines and torpedo weapon systems.

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## In WWII, A Stranded Dutch Warship Disguised Itself as an Island to Evade Japanese Bombers

The Netherlands officially surrendered on May 15th, 1940. However, its Navy continued the fight. Part of the navy was deployed in the Dutch East Indies during the attack on the homeland and a part managed to escape to England. The Dutch Navy established a headquarters in London while its troops operated in all theatres of war. Some Dutch ships participated in Operation Dynamo, better known as the evacuation of Dunkirk, and in transport missions during the invasion of Normandy.

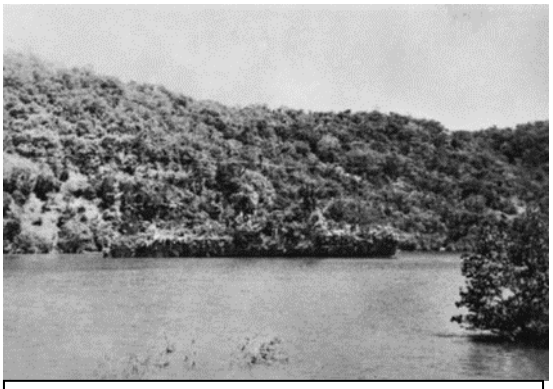
HNMS *Abraham Crijnssen* was one of the ships anchored at Surabaya in the Dutch East Indies. It was the third of eight Jan van Amstel-class minesweepers built in the 1930's. The ship was commissioned into the Royal Netherlands Navy on 26th of May 1937. The name comes from a celebrated 17th-century naval commander, Abraham Crijnssen.

The bombardment of a Netherlands cruiser during the Battle of the Java Sea.

Following the Japanese invasion in 1941 and the initial Allied defeats at the Battles of the Java Sea and the Sunda Strait in February 1942, all Dutch ships were ordered to retreat to Australian ports. These two disastrous defeats left the joint American, British, Dutch and Australian fleet decimated, and the commander of the joint forces, Karel Doorman, who was Dutch, died during the battle. At the time, the battle represented the largest surface engagement of ships since the Battle of Jutland in 1916.

HNMS *Abraham Crijnssen* was meant to leave Surabaya with an escort of three other ships, but it ended up alone. Severely outnumbered and heavily outgunned, the personnel of the ship had to figure out how to retreat without being sunk by the Japanese Imperial Navy, which lurked in the waters around the archipelago.

The captain of the HNMS *Abraham Crijnssen* devised a plan that sounded so crazy that it might actually work — he decided that the ship should be camouflaged as a floating island. Don't forget, this ship was 184 feet (56m) long, with a beam of 25 feet (7.6m) and a draft of 7 feet (2.1m). She weighed 525 tons.



HNMS *Abraham Crijnssen* covered with branches.

The personnel gathered large branches from a nearby island and arranged them so they could look as realistic as it was possible. They also painted the hull of the ship in shades that resembled rocks and cliffs. The ship was to remain close to shore at all times and travelled only by night.

The minesweeper ship was relatively slow — it could reach a maximum speed of only 15 knots. Also, it was poorly armed, carrying only a single 3-inch gun and two Oerlikon 20mm cannons. It was an easy prey for the Japanese bombers that circled the archipelago. So, the ship decided to find cover somewhere among the 18,000 islands in Indonesia. Since they moved only by night, they proved to be undetectable.

HNMS *Abraham Crijnssen* covered with branches.

HNMS *Crijnssen* and its crew of 45 managed to avoid a Japanese destroyer that had sunk several Dutch ships in the Battle of Java Sea and the Sunda Strait, and was patrolling the waters in search of the remaining Dutch ships. The voyage lasted for eight days, and the HNMS *Abraham Crijnssen* was the last ship that managed to escape the Japanese from the Dutch East Indies.

Once it found refuge in the Australian waters, the ship underwent a refit, which included the installation of new ASDIC equipment for submarine hunting. HNMS *Abraham Crijnssen* was recommissioned on the 28th of September 1942, as part of the Royal Australian Navy. The minesweeper was reclassified as an anti-submarine convoy escort vessel, since the Allies were in dire need of counter-measures against the Japanese submarines that were swarming in the Pacific.

HNMS *Abraham Crijnssen* was also used as a submarine tender for the Dutch submarines that managed to escape the Japanese invasion. The crew was replaced by the survivors from the British destroyer HMS *Jupiter*, which had been sunk during the Battle of Java Sea. In addition to the HMS *Jupiter* sailors, the HNMS *Abraham Crijnssen* was manned by Australian personnel all under the command of an Australian lieutenant. The Dutch Navy nurtured the tradition of hanging a portrait of the reigning monarch in the officers' mess hall. This led to a minor feud between the British and the Dutch when it was proposed that the picture of Queen Wilhelmina of the Netherlands be replaced by a portrait of King George VI of the United Kingdom. The Dutch insisted that the portrait of their queen not be removed and it was decided that it should stay, even though the crew was British/Australian.

During its operational service under the Australian Navy flag, *Abraham Crijnssen* detected a submarine, while escorting a convoy to Sydney through the Bass Strait, on 26th of January 1943. Together with the Australian HMAS *Bundaberg*, they depth charged the submarine. No wreckage of the submarine was found, nor was the kill confirmed, but the ex-minesweeper suffered some damage due to hastily released depth charges; several fittings and pipes were damaged, and all of her centreline had to be replaced during a week-long dry docking.

After this incident, the ship was finally returned to Royal Netherlands Navy service on 5th of May 1943, even though it spent the rest of the war in Australian waters. It hadn't been in use until 1945, when the ship left Sydney and headed for Darwin, towing an oil lighter and a Dutch K9 submarine that was out of action. In an unfortunate event, the tow cable snapped, and the submarine washed ashore at Seal Rocks, New South Wales.

*Abraham Crijnssen* ended its WWII career just like she started it — as a minesweeper that was responsible for clearing mines in Kupang Harbor before the arrival of an RAN force to accept the Japanese surrender of Timor.

*Source: War History on Line. 160419*

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## Master warns on Chinese 'arrest'

An experienced ship master, who was detained in a Chinese port because two numerals were missing from a form, has warned other seafarers to be on their guard against criminalisation in the country.

The master was taken from his ship and questioned in police headquarters ashore after immigration officers noticed that two zeros were missing from the passport number of the chief officer on the vessel's departure crew list.

The ordeal began after the master's ship had completed cargo operations and was preparing to sail. The master was called to the ship's conference room, and told that the charterer's agent and immigration wanted to see him.

'I saw the agent was physically shaking as he was being spoken to by three immigration officers,' the master said. 'I was told it was a big problem. I apologised for the error and asked why this was not questioned on the three previous occasions when crew lists had been submitted in other ports, but there was no explanation'.

'I also questioned why the mistake had not been noticed by the charterer's agent, who had requested copies of all passports before the vessel's arrival, for the sole purpose of checking crew lists before submission to Immigration,' he added. 'I realise this in no way mitigates my mistake. I was then told to stand next to an immigration officer who told me the offence I had committed. This was being recorded and afterwards a brief translation given by the agent. It was very formal and was being videoed.' The master was then told to accompany the immigration officers to their office to sign and receive forms relating to the 'offence'.

Both his passport and that of the chief officer were seized by the immigration officers.

He was then taken to what he believes were the police headquarters, a large building in a secure gated compound some 25-30 minutes from the ship. He was asked more questions, had his mobile phone taken away, and underwent a full body search before he was photographed.

He then underwent more interviews with two immigration officers. 'They asked me lots of personal questions about home and family. Then questions about my occupation and did I admit the offence and accept the consequences — the fine,' he recalled.

'All the time the agent translated. But not very well. The one thing I recall vividly was being asked if I wanted my family notifying.'

He was then required to sign a series of documents, which were all in Chinese, before being taken back to the immigration office to pay the fine — finally returning to the vessel about four hours after the incident began.

'Although at no time did anyone say I was arrested, I felt I had no choice but to comply, and when I was asked if I wanted my family to be notified, I was concerned that I might be there for some time and that the ship could go without me because there was another master onboard,' he added. 'I certainly feel this was another case of criminalisation and a sign of how our job is changing,' the master said. 'I hope other masters will take note of my experience and be very careful when they are visiting ports in China.'

*Flashlight Editor: After 20 years of marine surveying in mainland China this does not surprise me. In most cases, it is a case of pure blackmail with a backhander to the officials to release the ship. In this case, it would appear that the process was formal. However, did he receive a receipt for the fine?*

*Source: Flashlight 177.*

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## Marine Insurers Demand Better Fire Protection for Large Containerships

September 19, 2017 by Reuters

By Mike Wackett (The Loadstar) – The International Union of Marine Insurance (IUMI) has warned that Solas firefighting regulations for container vessels are "inadequate" – particularly as ships have grown in recent years.


The 13,798 TEU containership *MSC Daniela* on fire off Colombo, Sri Lanka, in April 2017. Photo courtesy Sri Lankan MoD.

IUMI said the regulations were developed for general cargo vessels, where freight is stored openly in holds, and are "not suitable for a modern containership". It added: "With the growing size of container vessels and a recent spate of fires on board these ships, IUMI is concerned that current firefighting provisions are insufficient."

IUMI listed high-profile examples, including the mid-Atlantic blaze on the 6,732 teu *MSC Flaminia* in July 2012, which took the lives of three crew members and resulted in a constructive total loss of the ship.

It argues that in the open sea or in remote locations, it could be hours or days before assistance reaches a distressed ship. And ineffective attempts to put out major fires on board places the crew "in great danger" and increases the damage to the cargo, the vessel and the environment.

IUMI today published a position paper to support its view that more must be done to improve the safety of crew, the cargo and ships in terms of fire detection, protection and firefighting capability.

Although SOLAS Chapter 11-2/10 was amended at the International Maritime Organization (IMO) in 2014 by MSC 92 specifically to increase the effectiveness of firefighting on containerships, the tougher regulations only apply to ships constructed after 1 January 2016.


Photo courtesy Sri Lankan MoD

IUMI said concerns remained about firefighting arrangements on ships built before then and believes the stricter regulations still "do not go far enough", in view of the substantial increase in containership size over the past few years.

It is supporting a best practice proposal presented by the German insurance association, GDV, which has set out an "improved concept" for firefighting facilities on containerships.

Uwe-Peter Schieder, marine loss and prevention manager at GDV, explained: "We suggest creating individual fire compartments below deck to prevent fire from spreading.

"These compartments would be fitted with fixed CO2 and water-based firefighting systems. Boundary structures would also be fitted above deck to align with the water-cooled bulkheads below and also fitted with fixed firefighting systems."

Additionally, Mr Schieder recommended the installation of enhanced fire detection systems.

IUMI is holding its annual conference in Tokyo this week, hosted by the General Insurance Association of Japan and attended by more than 500 marine underwriters and colleagues.

It said 2017 was proving both "challenging and uncertain", with global premium income continuing to fall and the exposure to risk increasing as "vessels grow larger and values accumulate in ports".

*Source: 170921*

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## Bulk Carrier Banned from Australia After Caught Underpaying Crew

September 14, 2017 by gCaptain

The Australian Maritime Safety Authority (AMSA) has banned the Panama-flagged bulk carrier *DL Carnation* from entering Australian ports for one year after the vessel was caught underpaying crew wages.

The 81,000 dwt Panama-flagged *DL Carnation*. Photo: AMSA

The AMSA was first alerted to the offense on September 8 when it received a complaint via the International Transport Workers' Federation alleging discrepancies in the payment of wages for the crew of the bulk carrier.

An AMSA surveyor boarded the vessel in Gladstone and found that the ship was operating with two sets of wage accounts on board; one that showed the amount of pay the crew should have been receiving in line with their Seafarer Employment Agreements, and the other showing what the crew were actually receiving.

A comparison of the accounts showed the crew were being underpaid in excess of $17,000 USD per month with records found reflecting this back to at least April of this year.

The vessel was immediately detained for breaching the Maritime Labour Convention, 2006, which provides international standards for seafarers' rights such as minimum age, working hours, seafarer employment agreements, and payment of wages, among other things. MLC 2006 is commonly referred to as the "Seafarer Bill of Rights" for its basic-yet-necessary protections for seafarers.

With regards to the *DL Carnation*, AMSA's General Manager of Operations, Allan Schwartz, said the keeping of two sets of accounts is extremely concerning.

"By maintaining multiple accounts of wages, it demonstrates a knowledge and intent not only to withhold wages but also to actively deceive authorities," Schwartz said. "This is completely unacceptable behaviour and will not be tolerated in Australia."

AMSA said on Thursday it had received confirmation today that the outstanding wages had been received by the crew and the vessel was released from detention at 2:30 pm. Upon releasing the vessel from detention, AMSA issued the master a direction notice banning the DL Carnation from entering or using any Australian port for 12 months.

"For a first breach AMSA's response would normally be to detain the vessel until the problem is rectified. In this case, given the concerning existence of fake accounts and the intent to deceive authorities, AMSA has decided to issue a 12 month ban to the DL Carnation and will increase inspections for all other vessels belonging to this company," Schwartz said.

"AMSA takes a zero-tolerance approach to the mistreatment of crew and all vessels coming to our shores should be aware of the consequences. Shipping companies should be aware that AMSA has the power to ban entire fleets if we uncover systemic issues within an operation and will not hesitate to do so where deliberate non-compliance is uncovered," Schwartz warned.

*Source: gCaptain 170918*

## Dogger, Fisher, German Bight: shipping forecast celebrates 150 years

The maritime service launched in 1867 and is still 'vital' to seafarers, says the RNLI, despite new sources of weather data

Fiona Harvey Environment correspondent

Thursday 24 August 2017 14.01 AEST Last modified on Thursday 24 August 2017 19.13 AEST

Consternation, mourning and national soul-searching greeted the temporary silencing of Big Ben last week, but at least another favourite fixture of the nightly and early morning radio is to continue. The hymnal cadences of Viking, North Utsire, South Utsire, through Shannon, Rockall, Malin all the way to south-east Iceland, will be heard as usual on Thursday, as the shipping forecast celebrates 150 years of uninterrupted service.

The shipping forecast, the longest continuous weather forecast ever made, has been a public service since 1867 when it was used to warn of storms. The warnings were first issued using the electric telegraph until radio became available. Storm warnings were sent over the telegraph wires to harbours, where signals were hoisted to warn ships at sea.

When the BBC was formed in the 1920s, the maritime forecast became a fixture of the daily wireless programme, where it would remain, with occasional modifications and a break during the war, when the broadcast was discontinued for fear it would help the enemy. The forecast was still made, however, and disseminated to the Royal Navy.

Though today's seafarers have access to many more sources of meteorological data, and many radio listeners famously use the late-night incantatory broadcast – never more than 380 words, and always following the same strict format – for soporific rather than navigational purposes, the broadcasts still fulfil a vital safety role.

Peter Dawes, lifesaving services manager at the RNLI, said: "[It] is an excellent source of information, and a vital tool in helping people make critical safety decisions at the coast and at sea. We urge everyone to check the weather before heading to the coast, in order to stay safe."

A century and a half ago, the shipping forecast was the most practical application of the techniques of weather forecasting pioneered by Robert FitzRoy, vice-admiral and founder of the Met Office, a few years earlier.

A disastrous storm off the coast of North Wales, in 1859, in which the *Royal Charter* steam clipper foundered along with more than 130 other ships, with the loss of 800 lives, led the naval scientist to start publishing a tentative series of weather forecasts from 1861.

FitzRoy, the captain of HMS *Beagle*, on which Charles Darwin made the voyages that led to his theory of evolution, was one of the fathers of modern weather forecasting, rightly foreseeing that new technology, including improved communications and observations, would render accurate predictions of the weather possible. But he was ridiculed for years for his efforts, and his petitions to the Board of Trade for public support went unanswered. Discouraged by the response, and having exhausted his fortune in attempting to set up a regular forecasting service, he killed himself in 1865.

After his death, the regular forecasts he initiated ceased, but public outcry led to their reinstatement in 1867 as a safety tool for mariners, and they have continued with occasional modifications ever since.

FitzRoy is now commemorated in every shipping forecast as a sea area was named after him in 2002. This caused its own consternation on introduction, nearly on a par with that currently surrounding Big Ben, because FitzRoy replaced the long-standing and sonorous Finisterre, an area of sea close to similarly named areas of the French and Spanish maritime areas.

The shipping forecast is now 93% accurate overall, and the forecast for inshore waters is about 97% accurate. Wind direction is not always as easy to get right as wind speed, with about 80% accuracy and more than 90% respectively, while about 15% of gale warnings turn out to be false alarms.

*Source: Guardian*

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## CNN Reports USS *John S. McCain* Lost Steering Prior to Collision

August 22, 2017 by Mike Schuler

Tugs from Singapore assist the guided-missile destroyer USS John S. McCain (DDG 56) towards Changi Naval Base, Republic of Singapore after a collision with the tanker, August 21, 2017. U.S. Navy Photo

The guided-missile destroyer USS *John S. McCain* may have suffered a loss of steering prior to its collision with a merchant tanker near Singapore on Monday, a U.S. Navy official told CNN.

The USS *John S. McCain* was transiting to Singapore for a routine port visit when it collided with the Liberian-flagged tanker Alnic MC at approximately 6:24am Japan Standard Time on Aug. 21 while east of the Straits of Malacca. The Navy said Tuesday that some of the remains of the ten missing sailors have been located inside the ship as an international search continues near the site of the collision.

Citing a U.S. Navy official, CNN reported late Monday that J*ohn S. McCain* had suffered a "steering failure" prior to the collision. Earlier in the day CNN

reported that “there were indications the destroyer experienced a loss of steering right before the collision, but steering had been regained afterward,” according to a second Navy source. After the collision, *McCain* arrived at Singapore’s Changi Naval Base Monday afternoon under its own power.

The collision involving the McCain is the fourth major accident in the U.S. Pacific fleet this year. In June, seven sailors were killed when the USS *Fitzgerald* collided with a containership off the coast of Japan.

In wake of the accidents, the U.S. Navy on Monday called for a fleet-wide probe and a rare “operational pause” of its fleets around the world, which will allow fleet commanders to assess and review with their commands the fundamental practice to safe and effective operations. Chief of Naval Operations Adm. John M. Richardson said “The pause is likely to be one to two days . This is obviously an extremely serious incident and is the second such incident in a very short period of time, within inside of three months and very similar as well, and is the last of a series of incidents in the Pacific fleet in particular,” Admiral Richardson said.

On Tuesday, Admiral Richardson downplayed reports that the ship may have been hacked. “2 clarify Re: possibility of cyber intrusion or sabotage, no indications right now…but review will consider all possibilities,” Admiral Richardson wrote on Twitter.

In addition to the operational pause, Richardson said he tasked Navy Adm. Phil Davidson, the commander of U.S. Fleet Forces Command, to take charge of a comprehensive review to find the contributing factors and root causes of the incidents. The review will include representation from throughout the Navy, as well as from other services and the private sector.

The Navy said the review will look at the processes the Navy uses to train and certify the forward deployed forces in Japan. Another area for examination, as Richardson outlined, is how the Navy trains and certifies its surface warfare community, including tactical and navigational proficiency.

“My hope is that we will learn, continue to improve in the short term, validating that we are sound on the fundamentals and if not then we’ll take action to correct that, and then look at broader, more systemic issues that we may find through this comprehensive review,” Richardson said. The comprehensive review is in addition to the investigations into the Fitzgerald and McCain, he added.

*Source: gCaptain 170823*

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## 3D Printed Ship’s Propeller Prototype Produced

The 400kg prototype 3D printed propeller represents a steep learning curve of the understanding of material properties, according to Kees Custers, Project Engineer in Damen's R&D department. "This is because 3D printed materials are built up layer by layer," Custers explained. "As a consequence, they display different physical properties in different directions - a characteristic known as anisotropy. Steel or casted materials, on the other hand, are isotropic - they have the same properties in all directions."


Because of this critical difference, one of the first steps was to carry out extensive testing of the material properties of the printed material to ensure compliance to Bureau Veritas standards. "This involved printing two straightforward walls of material - then using a milling machine to produce samples for lab testing of tensile and static strength," Custers said.

"The challenge has been to translate a 3D CAD file on a computer into a physical product. This is made more complex because this propeller is a double-curved, geometric shape with some tricky overhanging sections," Custers explained.

Yannick Eberhard, from Promarin's R&D department, added, "The transformation from a semiautomatic to robotic processing is the solid foundation for even more complex and reliable future propeller designs."

"Material characterization and mechanical testing have been an important part of this project," said Wei Ya, Postdoctoral Researcher from the University of Twente at RAMLAB. "We have to make sure that the material properties meet the needs of the application. Material toughness, for example - ensuring that the propeller is able to absorb significant impact without damage."

"But we have also been working towards optimizing the production strategy for 3D metal deposition. This includes bead shape and width, as well as how fast we can deposit the printed material."

Highlighting RAMLAB's capacity to print objects with maximum dimensions of 7x2x2 meters, Ya said, "For large scale 3D metal deposition, the WAAMpeller is really ground-breaking for the maritime industry."

Ya continued, "This technology is a fundamental change in the concept of how we make things. With additive manufacturing, you can print most metallic components that are needed in principle. There is so much potential for the future - these techniques will have a big impact on the supply chain."

This first prototype WAAMpeller will be used for display purposes, and planning for a second example is underway. "We start production of a second propeller with class approval later next month - using all the lessons we have learned over the past few months," Custers noted. "We are aiming to install this second one onto one of our tugs later this year."

*Source:: Shipping News 002*

## Symbolic Coins Laid in Keel of Australia's New Icebreaker

2017-09-09 20:05:03

The first building block of Australia's new icebreaker was welded into place at a keel laying ceremony at Damen Shipyard Galati in Romania late last month.

The concept design was done by Knud E. Hansen, and Managing Director, Finn Wollesen attended the ceremony, along with Rasmus Nygaard from Friends of *Nella Dan*. They came bearing a Danish coin, depicting the Danish Crown Prince Frederik, and his wife – Princess Mary, who originates from Australia.

The vessel will replace the *Aurora Australis* and has the working title Nella Dan II. The original *Nella Dan*, built by Aalborg Shipyard, was launched in 1961 and for over 25 years served as a supply, expedition and research ship in the Antarctic and elsewhere. "It was an honor for us to be able to take part in the becoming of the new vessel," says Nygaard. "And even more of an honor that the Australian Antarctic Division treasures the legacy of the *Nella Dan*. We pass on the good spirit of camaraderie to the new ship." The choice of another coin was also symbolic; it was a Dutch silver coin dated 1642, the year that Dutch explorer Abel Tasman become the first European to reach Tasmania. Tasmania is not only where the offices of the Australian Antarctic Division are located, but the island's capital, Hobart, will be the vessel's home port. The heavy icebreaker was designed for the Australian Government to resupply their Antarctic bases and for research and scientific work. The vessel can deploy a wide range of vehicles, including helicopters, landing barges and amphibious trucks to support the resupply operations. The new ship provides a modern platform for marine science research in both sea ice and open water with a large moon pool for launching and retrieving sampling equipment and remotely operated vehicles.

Unique to the vessel is a hybrid propulsion system to provide both the high power needed for icebreaking and silent running for science operations. Sensitive acoustic instruments are mounted on dual drop keels and multi-beam bathymetric sonars will enable sea floor mapping. Flexible and modular science laboratories will provide scientists with diverse facilities.

The icebreaker, due to arrive in Hobart in 2020, will be the main lifeline to Australia's Antarctic and sub-Antarctic research stations.

Vessel details for New Icebreaker

Length: 156m (512 feet), Breadth: 25.6m (84 feet), Draught: 9.2m (30 feet), Displacement full load 24,000 tonnes, No. of passengers: 116, No. of crew: 32, Maximum Speed: 16+ knots, Icebreaking: 3 knots

Propulsion: Diesel-Direct + PTI (electric hybrid), Propulsion power: 26,600kW ,Generator power: 11,000kWe, Thrusters: three bow and three stern, Classification: Lloyd's Register

*Source: Shipping News 002*

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## VICTOR HABOR FLAGPOLES