NAVY LEAGUE OF AUSTRALIA
WESTERN AUSTRALIA DIVISION

February 2019
Volume 3, Issue 2

DOWN THE VOICEPIPE *do you here there!*

Captain Brian Delamont, RAN has handed over command of HMAS Stirling to Captain Ainsley Morthorpe, CSM, RAN

In a new twist to the tradition of Commanding Officers being rowed ashore, CAPT Delamont departed via Stand Up Paddleboard crewed by PTIs and the Adventure Training team, with an escort flotilla of kayaks

COMING UP

- Executive meeting Monday 04th. February 2019 1700
- HMAS Perth (I) Memorial-Foundation Meeting to be advised
- HMAS Perth (I) Memorial Regatta Nedlands Yacht Club Sunday 17th. February 100—1700
- HMAS PERTH (I) Memorial Service St Johns Church Fremantle Sunday 24th. February 2019 at 1130
- **ALL ARTICLES PUBLISHED IN THIS NEWSLETTER ARE PRINTED IN GOOD FAITH AND DON'T NECESSARY REFLECT THE VIEWS OF THE NAVY LEAGUE OF AUSTRALIA**

Divisional News

This month saw a change of command at HMAS Stirling with Captain Brian Delamont RAN handing over the weight of the establishment to Captain Ainsley Morthorpe CSM RAN. Captain Delamont is retiring to the RANR and is to be congratulated on the remarkable work he and his team have done at HMAS Stirling during his posting, particularly in the community and publising the role of the RAN and in particular the Western Australian Navy .The supporting of the Navy League Western Australian Division and the shared fellowship. BZ

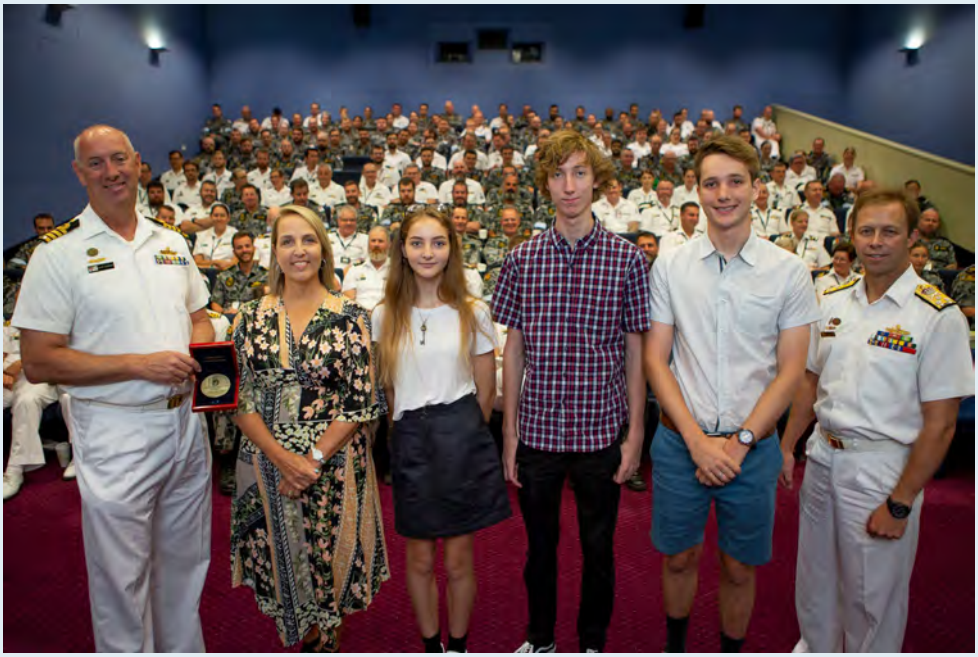
The HMAS Perth (I) Memorial committee are meeting regularly to ensure that every thing is in place for the official launch this year. Defence have approved the use of the word HMAS and Royal Australian Navy in the context of the memorial we can then finalise the incorporation side of the to make it legal. There is a huge amount of interest being shown in the project which when completed will be spectacular and a fitting national memorial to The crew, families and memories of a fine and gallant ship of the Royal Australian Navy.

The Annual Regatta commemorating HMAS Perth (I) will be held at the Nedlands yacht club on the 17th. February 2019.

The Annual church service for HMAS Perth (I) will be held in ST Johns Church Fremantle on the 24th. February 2019 at 1130 all welcome.

The uptake of the continued NLWA polo shirt uptake has been very well received by members and our image is being displayed to a wider community with the same aims as ours. By wearing the polo we have been approached by many in the community locally and interstate enquiring what the league is about. Orders will be accepted on an ongoing basis.

HMAS PERTH (I) Memorial Regatta—Nedlands Yacht Club



Chief of Navy, Vice Admiral Michael Noonan, AO, RAN presented CAPT Brian Delamont with his Service Medallion on com-

AUSTRALIAN NAVY CADETS AT HMAS STIRLING
DURING A RECENT MARITIME CAMP

Executive Officer HMAS Stirling, Commander Larry Menon, RAN, presents a farewell gift to Commanding Officer HMAS Stirling, Captain Brian Delamont, RAN at his farewell

Commanding Officer HMAS Stirling, Captain Brian Delamont, RAN, Commander Larry Menon, RAN, with a Commanding Officer's Commendation for his leadership and management as Executive Officer HMAS Stirling

SPANISH NAVY COMMISSIONS SIXTH METEORO-CLASS OPV

January 23, 2019

Written by Nelson E. Dela Cruz

Published in Ships (Naval)

The Spanish Navy commissioned a newbuild offshore patrol vessel (OPV) into service on Monday, January 21.*Furor* is the sixth of a planned nine *Meteoro*-class OPVs ordered for the Spanish Navy from state-owned ship-builder Navantia.The vessel has a length of 93.9 metres, a width of 14.2 metres, a draught of 4.2 metres, a speed of 20 knots, and a crew of 46. Armament includes a 76-millimetre naval gun, two 25-millimetre autocannons, and two 12.7-millimetre machine guns.

RFA MOUNTS BAY EMBARKS US COAST GUARD PERSONNEL FOR CARIBBEAN COUNTER-DRUG OPS

January 23, 2019

Written by Nelson E. Dela Cruz

Published in Naval auxiliary/support vessels

The Royal Fleet Auxiliary (RFA) landing ship dock RFA *Mounts Bay* has been deployed to the Caribbean to assist the US Coast Guard (USCG) in preventing illegal drugs from South and Central America from reaching North America and the rest of the world.The vessel has embarked a USCG Law Enforcement Detachment (LEDET) of counter-narcotics personnel which will conduct the actual visit, board, search, and seizure (VBSS) operations via small boat. An SH-65 Dolphin helicopter from the USCG's Helicopter Interdiction Tactical Squadron (HITRON) is also embarked on the RFA ship.*Mounts Bay* will patrol the waters around the Dutch territory of Curacao during this deployment.

Naval Shipbuilding College supports national TAFE training

| 23 January 2019 | Stephen Kuper

The Naval Shipbuilding College, in partnership with US shipbuilding giant Huntington Ingalls Industries (HII), has developed an industry-backed welding course to up-skill students at vocational training institutions around the country.
Naval Shipbuilding College 'know-how' played a key role in creating a simple training kit that is now being rolled out by TAFE colleges around Australia to upskill students in welding techniques.
The college worked with TAFE SA and specialists from HII to develop a specialised training kit to provide students with the experience and develop expertise in welding within confined spaces, essential skills for developing Australia's sovereign naval shipbuilding industry.
Mark Scott, Naval Shipbuilding College manager of skilling services, said, "It was through our collaboration with our stakeholders that the college identified the needs for students seeking a career within the Naval Shipbuilding Enterprise to be trained in the specific area of welding in a confined space."

The training kit will give potential employers the confidence that students undertaking the course will possess the skills and training needed to be job ready. While the original kit was constructed in Adelaide, technical assistance packages containing the specifications and instruction for its construction have been distributed throughout Australia.
"Working together we came up with a solution that would ensure the welding components of the Certificate III in Engineering – Fabrication Trade, would meet the future requirements of potential naval shipbuilding employers," Scott added.

The specialist training packages include computer aided design drawings, measurements and specifications to support the manufacturing of the training aid as well as welding procedures and reporting forms.
The Naval Shipbuilding College (NSC) is a joint venture between KBR and HII, and provides a national hub for the management, implementation and collaboration between key stakeholders, along with delivery of naval shipbuilding career awareness programs.
The Defence Industry Education and Skills Consortium (DIESC), which is made up of the Defence Teaming Centre, the University of Adelaide, the University of South Australia, Flinders University, RMIT University, Edith Cowan University, TAFE SA, South Metropolitan TAFE and the Indigenous Defence Consortium, said it is encouraged by NSC's engagement with industry.
HII and KBR have put together a team from the shipbuilding, education, training, academic and business sectors across Australia to ensure the mission of the NSC is properly executed.
These organisations include the Australian Maritime College in Launceston; Australian vocational education and training providers (TAFE) in Adelaide and Fremantle; and AiGroup, Manpower Group, PwC, Defence Teaming Centre and the DIESC, all of which have an extensive presence across Australia. The team will leverage and build upon existing Australian capability to successfully deliver world-class workforce services for the college.
HII is America's largest military shipbuilding company and a provider of professional services to partners in government and industry.

FEATURE | TAIWAN SUBMARINE PROJECT BREAKS SURFACE

January 22, 2019

Written by Trevor Hollingsbee

Published in Submersibles (Naval)

cpj2028ROCN Guppy-type submarine

Taiwan's Republic of China Navy (ROCN) is, for the most part, a balanced and well-equipped force, but the service currently operates just four submarines, namely two Netherlands-built 1980s-vintage Swordfish-class boats, and a pair of 70 year-old ex-US Navy Guppy types. The Guppys are used solely for training purposes.Beijing made the Netherlands suffer badly, on the trade and diplomacy fronts, after the Swordfish boats had been supplied to the ROCN, thus deterring other nations from contemplating the construction of submarines for Taipei.Taipei's long-term ally, Washington has, in recent years, supplied Harpoon anti-shipping cruise missiles, and heavyweight torpedoes, to equip the Swordfish boats. The submarines themselves are due to be upgraded by Dutch company RH Marine.Submarines are very important assets for Taiwan, being essential for surveillance and communication intercept duties in the Taiwan Strait, and to strike PLA Navy warships in the event that the People's Republic of China mounts an attack on Taiwan.Amphibious attacks on well-defended offshore islands are extremely challenging. It is not widely known that the Chinese Communists actually lost the last battle of the Chinese Civil War, when the defenders of the nationalist-held island of Quemoy (now Kinmen), situated just off the Chinese mainland, inflicted catastrophic casualties on a Communist army which attempted to invade and occupy the island.Taipei is nevertheless very alert to the prospect of a Chinese amphibious force attempting to invade and subjugate Taiwan.

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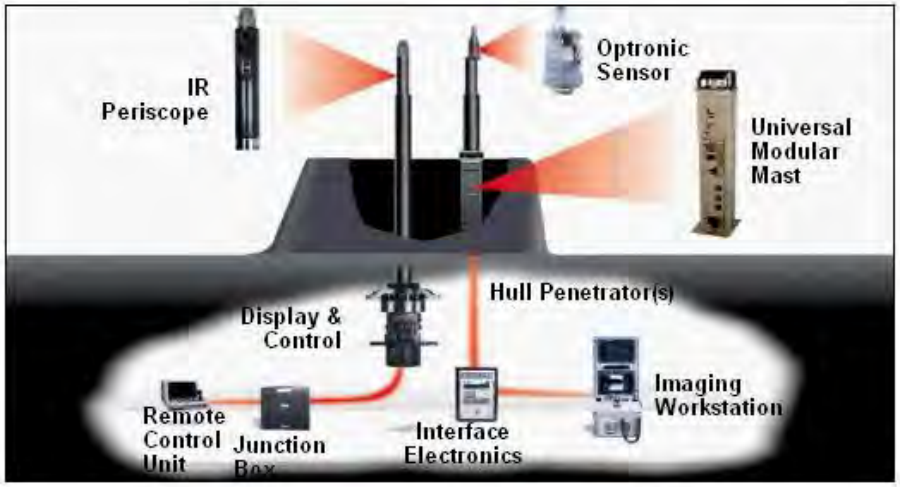
ROCN Swordfish-class submarine

In 2001 the then US President, George W. Bush gave approval for technical assistance to be given to the Taiwanese government for the construction of a new class of diesel-electric attack submarines. Little was then heard on the subject for some years.Then, in 2018, President Donald Trump gave approval for US companies to export the requisite technology to Taiwan, for the indigenous construction of diesel electric submarines.In October 2018 Taipei awarded a contract to Gibraltar-based consultancy Gavron to map out in detail the way ahead for the submarine project. The contract reportedly included a requirement for Gavron to negotiate export permits for some UK companies to supply submarine componentsNow, many reports, circulating in Taiwan, and elsewhere, indicate that the project has gained considerable momentum, and that construction could start as early as 2020. According to the reports, French shipbuilder Naval Group, German constructor HDW, a consortium of Japanese engineers who formally worked for Kawasaki and Mitsubishi, and an unnamed Indian company are all vying to lead the building of the submarines, with Lockheed Martin of the US poised to be the systems integrator.Taiwan's legislature is due to give final approval in March this year for the building of a prototype submarine, which will be carried out by Taiwan's foremost shipbuilder, CSBC. Hua Chunying of the Chinese Foreign Ministry recently cautioned against any foreign company becoming involved with the construction of submarines for the ROCN. Some analysts have noted, though, that Beijing has noticeably toned down its formerly somewhat hysterical comments on the topic, perhaps signalling that it now accepts that it will eventually happen.

Questionable “Game Changing” Mast Installation Underway for Submarines



January 14, 2019 – HMCS Corner Brook will become the first of the Royal Canadian Navy’s (RCN) four elderly Victoria-class submarines to be equipped with a new modern mast system.

The submarine is currently stationed in the purpose-built repair facility dock at Victoria Shipyards as workers from Babcock Canada install the L3 Calzoni Universal Modular Mast (UMM). The system, similar to the one fitted in the United States Navy Virginia-class submarines, was acquired under the United States Foreign Military Sales program.

Masts are vital to the functioning of any submarine. In Canada’s diesel-powered submarines they provide air supply, communications, radar and periscope capability.

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The now 33 year old HMCS Victoria at RIMPAC 2014, the only time a Victoria Class submarine has fired a torpedo. Japan Maritime Self-Defense Force Photo by photographer PO1 Makoto Maeda

The latest price figures available for UMM was 2014 over $1,000,000 US before installation. With the four Canadian installations, two of which were launched in 1986 and 1989, must be in the neighborhood of $8-10 million. This money would have been much better spent on planning for replacements.

Lieutenant-Commander Darryl Gervis, RCN Deputy Director Submarine Combat Systems, says the new technology puts Canada's submarine program on a new course.

"This is a game changer," said LCdr Gervis, referring to the current technological shortfall for Canadian submarines – the lack of a reliable high-speed satellite data link.

"What the UMM (when coupled with the Protected Military Satellite Communication (PMSC) antenna) will do is provide near real-time high-speed communications with shore. This will allow for improved picture and video transmission, and quicker transmission of messages, therefore reducing counter-detection opportunities as the submarine will spend less time with its mast out of the water."

The new equipment will also include the ability to "plug-and-play" a Communications Intercept Suite antenna that will provide the class that capability. This is because the UMM has two multi-purpose ports, like data ports on a computer. This will enable other antennas and intelligence gathering equipment to be swapped in and out to better suit the needs of a specific deployment or changing technology.

Commander Mike Mangin, Deputy Commander, Operations, of the Canadian Submarine Force, is encouraged by the upgrade and says the UMM with PMSC will truly bring Canadian submarine communications capabilities into the modern era.

"It improves the Victoria class as an intelligence, surveillance and reconnaissance platform," said Cdr Mangin. "It increases our utility so much – the upgrades to the comms fit that UMM enables can be compared to using an old dial-up modem to one of today's high-speed modems."

Corner Brook traveled from her homeport of Halifax for the contractor conducted extended docking work period and work is expected to be completed in 2020. Work is expected to begin on the UMM installation in HMCS Chicoutimi in 2019, with subsequent work to be performed on HMCS Victoria and HMCS Windsor. The plan is to have all four submarines retrofitted with the new equipment by 2026, 40 years after Chicoutimi (ex-HMS Upholder) was launched.

MAPLE LEAF NAVY
MAGAZINE
CANADIAN NAVY PAST, PRESENT & FUTURE

CGAI: "Overcoming 'Boom and Bust'? Analyzing National Shipbuilding Plans in Canada and Australia"
January 18, 2019 adminmaple

January 17, 2019 – While both Canada and Australia share similar constitutional frameworks and imperial histories, they are also no stranger to procurement challenges. Cost overruns, delays, regionalism, and protracted intellectual property disputes have all been part of major defence acquisition projects in recent decades.

This Policy Paper analyzes the largest and most expensive procurement projects undertaken by either country, Canada's $73 billion (estimated) National Shipbuilding Strategy (NSS), launched in 2010, and Australia's A$90 billion Naval Shipbuilding Plan (NSP), launched in 2017. Each project represents an attempt to implement a rational, multi-decade approach to naval acquisition. Driven by a desire to overcome previous boom-and-bust cycles, the NSS and NSP aim to create a sustainable shipbuilding sector capable of meeting the immediate and future naval demands of Ottawa and Canberra. Neither country has attempted a shipbuilding plan on this scale before.

The NSS and NSP are still in their early stages but some common themes have emerged. On implementation challenges, old problems persist. For one, the rational approach to naval shipbuilding is not devoid of procurement politics and regionalism. Determining which province or state will be home to billions in contracts over many years remains a zero-sum game no matter how arms-length the process of yard selection.

Cost increases also remain a reality. Building domestically can carry a 30 per cent to 40 per cent premium. Project delays increase this premium, something Canada has already experienced when initial NSS acquisition costs, pegged at $37.7 billion nearly a decade ago, jumped to an estimated $73 billion today. Australia's delays in securing an agreement with France's Naval Group on its $A50 billion future submarine project could mean additional cost increases.

In this context, schedule is king and avoiding cost increases requires keeping to planned shipbuilding schedules. Failure to do so opens production gaps and necessitates going with alternative options including building overseas (Australia) or converting commercial vessels for naval and coast guard use (Canada).

Prolonged cost sensitivities raise the consideration of trade-offs on committing more money to continuous shipbuilding at the expense of acquiring other military capabilities. Canada, for instance, will need to make decisions at some point on whether to spend billions on replacing the North Warning System in the country's North. Australia will have to grapple with an Indo-Pacific region proliferating with relatively cheaper but lethal anti-ship missiles. In this context, money spent on surface combatants may be perhaps better spent on other capabilities.

None of this is to say that progress has not occurred in either the NSS or NSP. Ships are getting built, including Arctic Offshore Patrol Ships in Canada, and Offshore Patrol Vessels in Australia. In 2018, both countries selected the British Type-26 as their preferred design for a new generation of surface combatants. It is very possible that these respective strategies will achieve their goals of bypassing the boom-and-bust eras, but ongoing challenges serve as a reminder that even with the best-laid plans, naval shipbuilding is a complicated affair.

The growing case for an Australian aircraft carrier

Maritime and Undersea Warfare | 24 January 2019 | Stephen Kuper

Japan's recent announcement that it would refit its Izumo Class vessels to act as F-35B carriers has seen ASPI kick off renewed debate about the viability of a similar platform for the Royal Australian Navy.

Aircraft carriers emerged from the Second World War as the pinnacle of maritime prestige and power projection. However, unlike their predecessors, the battleship, aircraft carriers are in themselves relatively benign actors, relying heavily a their attached carrier air-wings and supporting escort fleets of cruisers, destroyers and submarines to screen them from hostile action.

In recent years, Indo-Pacific Asia has seen a growing number of traditional aircraft carriers and large deck, amphibious warfare ships being used to secure sea-lines-of-communication and maritime borders, while acting as potent power projection platforms through the use of amphibious operations and potent marine units.

Both the US and China continue to invest heavily in the potent power projection capabilities provided by aircraft carriers and large-deck amphibious warfare ships The growing Chinese carrier fleet in particular has prompted Japan, which has been prevented from operating aircraft carriers since the end of World War Two, to embark on a modernisation of the Japanese Maritime Self-Defense Force's (JMSDF) fleet of large-deck amphibious warfare ships, the Izumo Class vessels.

Equally important is the capability of the aircraft deployed on such vessels. The F-35B, as with the larger 'A' and 'C' variants of the Joint Strike Fighter, represents a step-change in the power projection, air defence, close air support, sensor fusion and intelligence, surveillance and reconnaissance capabilities of carrier air-wings.

The short take-off, vertical landing (STOVL) 'B' variant of the F-35 Joint Strike Fighter incorporates all of the key fifth-generation force multiplier capabilities of the conventional take-off and landing (CTOL) 'A' variant currently in operation with the Royal Australian Air Force, with the added operational and strategic flexibility as a result of the specialised design, enabling deployment on board large-deck amphibious warfare ships.

Malcolm Davis of the Australian Strategic Policy Institute (ASPI) has reopened the debate around the return of fixed-wing naval aviation and strike capabilities for the RAN in response to the rising regional carrier capabilities.

"Starting this conversation is part of a broader discussion ahead of the 2020-21 white paper. We have recognised that a) we can't have same white paper as 2016 and b) we need to start seriously responding to the changing strategic reality, which will require a wholesale review of the force structure and force posture and a renewed focus on long-range strike and power projection, both of which a carrier or similar vessel can fill perfectly," Davis told Defence Connect.

The Japanese decision

The Japanese government has closely monitored the rise of the Chinese Navy and its growing force of aircraft carriers and territorial ambitions particularly in the South China Sea (SCS) and the Southern Ryukyu and Senkaku Islands. In response, the recent announcement that Japan would begin the refit of the Izumo Class vessels to reintroduce an integrated fixed-wing naval aviation capability to the JMSDF.

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"The dozen or so aircraft likely to be embarked won't be enough to constitute a traditional carrier air wing, but they will better support the defence of Japan's vulnerable archipelagic regions in the Southern Ryukyu and maybe the Senkaku Islands," Davis commented.

Izumo and her sister ship Kaga are capable of supporting airwings of 28 aircraft, with capacity for about 10 'B' variant of the F-35 Lightning II Joint Strike Fighter, with both 27,000-tonne vessels capable of supporting 400 marines. While in the early stages of design phase for the refit of the vessels, incorporating the F-35B into the two vessels enhances the maritime strike and broader deterrence options for Japan.

However, the Japanese decision is not without challenges, China's growing fleet of aircraft carriers, and the increasingly potent area-access/area denial (A2AD) capabilities provided by anti-ship ballistic missile (ASBM) systems like the DF-21 and DF-26 increase the risk to aircraft carriers and large-deck amphibious warfare ships.

"The Japanese capability will be limited, according to their post-war constitution which views aircraft carriers largely as offensive weapons platforms, so the Izumo and Kaga will be limited to extending the Japanese ability to project force and defend Japan's interests closer to China," Davis added.

The introduction of these A2AD systems requires that the new 'carriers' be supported by an enhanced layer of air and missile defence capable cruisers, destroyers and frigates, adding further cost and operational complexity challenges.

Additionally, concerns about the capability of the 'B' variant of the F-35, particularly concerning combat range, payload and maneuverability raises additional variables that can be overcome through the integration of key force multiplying platforms, namely tanker aircraft, either fixed wing or rotary and airborne early warning and control (AEW&C) aircraft and need to be accounted for as part of the broader integration equation Japan is currently embarking upon.

"The introduction of these capabilities is incredibly costly, not only with the refit of ships themselves, you then have to include the cost of the aircraft, the crews, maintenance, sustainment and support and escort vessels," Davis said.

Despite these challenges and protestations from Beijing, the Japanese government remains resolute in pursuing the capability, with Japanese Defense Minister Takeshi Iwaya saying, "The Izumo Class destroyers will continue to serve as multi-function, multi-purpose destroyers. This mode of operation falls within the realm of an exclusively defence-oriented policy."

Modify the LHDs or a buy a new one?

The notion of Australia acquiring a third, F-35B dedicated Canberra Class LHD has been discussed at great length by both strategic policy analysts and politicians since the RAN acquired the vessels. Currently, the

HMA Ships Canberra and Adelaide lack a number of structural and technical modifications that would enable the ships to safely and effectively operate the aircraft and any third vessel would need to incorporate the modifications from the keel up, in a similar manner to the Turkish Navy's TCG Anadolu (based on the Canberra/Juan Carlos Class vessels).

Davis identifies that Australia's acquisition of the 'A' variant also raises the possibility of purchasing up to 28 F-35Bs as part of Phase 2C of the broader AIR 6000 project.

"For Australia, this would be an expensive process. It will require a new ship, it will require the aircraft and conceivable modifications to the Air Force's KC-30As or the integration of a dedicated refuelling platform on board. It will also require an expansion of the escort and support vessels, this could mean five Hobart Class and 12 Hunter Class vessels, increased maintenance and sustainment, and it will mean growing the Navy to comfortably crew a larger surface fleet, all of which is costly," Davis explained.

However, the same challenges presented by the Japanese plan influences any potential for an Australian fixed-wing naval aviation capability, particularly the increased purchase of key escort vessels, namely the Hobart and Hunter Class and the Attack Class.

This is reinforced by Richard Brabin-Smith and Benjamin Schreer in a report for ASPI, where they focused on both the broader force structure challenges, combined with the operational limitations a small fleet of Australian F-35Bs operating from the Canberra class will provide.

"Despite their capacity to accommodate a number of STOVL aircraft, the LHDs are multi-purpose amphibious assault ships – not dedicated aircraft carriers. Because of their finite capacity, they can't carry a full complement of helicopters, and amphibious troops with their vehicles and equipment, and simultaneously deploy a useful number of STOVL aircraft and additional support aircraft. Even in a 'STOVL-only' configuration, the LHD would face challenges in generating enough F-35B sorties continuously to protect itself and ships in company against a capable adversary," the report argues.

Despite this, Davis recognised the potent force projection and force multiplying capability the F-35B would afford Australia's naval commanders and the broader 'joint force' as it continues to develop and integrate key platforms like the E-7A Wedgetail, Hobart and Hunter Class vessels and broader Army long-range fire systems.

"The F-35s will however increase the target acquisition, networking, information sharing and survivability of the new major surface combatants.

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It will also add to the broader 'joint force' and brings additional value to Australia's participation in coalition operations in the Indo-Pacific region and will serve to address the long-range strike capability that Australia lost since the retirement of the F-111," he said.
However, it is important to recognise the limitations of the LHDs in the carrier capacity and role, and identify alternatives that would better suit the introduction of a dedicated aircraft carrier role.
In particular, close monitoring of the Japanese conversion of the Izumo and Kaga and, looking further abroad, the Italian integration of the F-35B into the specialised aircraft carrier Cavour, which has been designed to operate a larger number of F-35Bs than the Japanese vessels.
The introduction of a dedicated aircraft carrier benefits Australian industry as well, through increased procurement programs for support and escort vessels, larger F-35 supply chain contributions and larger sustainment and maintenance contracts, which are key to keeping the Navy 'battle ready and deployed'.

Both fied-wing naval aviation and amphibious capabilities are one of the key force multipliers reshaping the region. The growing

prevalence of fixed-wing naval aviation forces in particular serves to alter the strategic calculus and balance of poerer.

CONSTRUCTION OF SPAIN'S NEWEST FRIGATES TO COMMENCE IN MAY

January 24, 2019

Written by Nelson E. Dela Cruz

Published in Ships (Naval)

Image: Spanish Ministry of Defence

Spanish state-owned shipbuilder Navantia will commence construction of the new F-110-class of frigates for the country's navy in May of this year, the Ministry of Defence has confirmed.The contract for the building of the vessels, which was valued at approximately €4.3 billion (US$4.9 billion), was approved by the Ministry of Defence in December 2018.The five ships of the class are scheduled to be delivered between 2025 and 2031.Each frigate will have a length of 145 metres and a displacement of 6,100 tonnes. Armament will include a 127-millimetre naval gun, two 30-millimetre autocannons, anti-ship missiles, and torpedoes.

2019 promises to be a big year for Navy

Maritime and Undersea Warfare | 24 January 2019 | Stephen Kuper
24 January 2019
By: Stephen Kuper

Fleet Base East (FBE) is a flurry of activity as the Royal Australian Navy's major fleet units and support organisations prepare for a year of milestones driven by growing relationships between industry and defence.
2019 kicked off on a positive note with HMAS Ballarat interdicting 3.1 tonnes of hashish in the Middle East, followed by highly successful participation as part of the multi-national Intrepid Sentinel maritime warfare and anti-submarine warfare exercise.
Navy's Patrol Boats remained stalwart over the Christmas period, patrolling Australia's northern maritime borders, and HMAS Huon returned home in mid-January following a four-month north-east Asian deployment.
Most Fleet units are now diligently working to ensure ships, systems and personnel are ready for the busy program of deployments, exercises and activities that lie ahead in 2019. With the support of Sea Training Group, unit readiness evaluations and training are being conducted to ensure the Fleet is prepared for the full spectrum of maritime operations and activities that lay before it.
"The next few weeks are a busy time for us, but the reward is the positive outcomes we achieve in platform and crew performance," Commander David Murphy, Fleet Executive Officer said.
2019 will also see the launch of the third and final Hobart class Air Warfare Destroyer, the future HMAS Sydney and further major project milestones for the Arafura Class OPVs, Hunter Class frigates and Attack Class submarine projects representing almost $90 billion worth of naval modernisation and expansion as part of the government's $200 billion, 20-year defence modernisation and capability expansion program announced in the 2016 Defence White Paper (DWP).

DWP and its focus on supporting industry through the sovereign industry capability and naval shipbuilding plans sought to respond to increased regional tensions and forge a path forward, following nearly two decades of 'valleys of death', cost and delivery overruns and shrinking defence budgets.
Industry is playing a central role in delivering these future capabilities, with the growing momentum reinforced by comments made by Commander of the Australian Fleet, Rear Admiral Jonathan Mead during a conversation with Defence Connect.
"The announcements made in the last week really are the culmination of many years of hard work on the OPV, future submarines and future frigate programs, and it is great to see all the infrastructure breaking ground ahead of the building process," RADM Mead told Defence Connect.
As units depart from Garden Island to conduct exercises and operations around the world, maintenance will remain a focus for those who remain ashore, with several key projects on the schedule, including the refit of HMAS Sirius.
Like the Fleet Units at sea, the support force at Garden Island is also looking at a busy year ahead, providing a range of services from training through to the remediation and replenishment of stores and equipment.
Navy's increased capability and platform readiness is supported by uniformed personnel, Defence civilians and contractors working at Fleet Headquarters, Sea Training Group and in other support organisations based at Fleet Base East will continue working diligently to ensure the Fleet meets all the milestones set for it in 2019.
The growing importance of Australian SMEs throughout the supply chain also plays a critical role in supporting the Navy's mission of being "Battle Ready and Deployed", and RADM Mead identified that both Navy and Defence had made great strides in supporting Australian SMEs become integrated within large Defence projects, particularly major naval projects like SEA 1000 and SEA 5000.
"What I have noticed with the businesses and the companies that succeed is that they keep the lines of communication open and they're willing to take criticism from us when it is warranted. Navy has to be open to the model too, what we expect of industry we must model ourselves," RADM Mead told Defence Connect.

MAIB BEGINS PROBE INTO NEAR-MISS BETWEEN SUBMARINE AND RO-PAX IN IRISH SEA

January 24, 2019

Written by Nelson E. Dela Cruz

Published in Submersibles (Naval)

Royal Navy file photoA Royal Navy Astute-class submarine

The UK's Marine Accident Investigation Branch (MAIB) has begun its investigation into an incident on November 6 last year wherein a submarine and a Ro-Pax ferry operated by Stena Line narrowly avoided colliding with each other.

Involved in the near-miss in the Irish Sea were the 203- by 25-metre *Stena Superfast VII* and a Royal Navy submarine, the name and type of which the Ministry of Defence (MoD) has not disclosed for reasons of operational security.The submarine was at periscope depth while navigating the sea lane between Cairnryan and Belfast during the same time that *Stena Superfast VII* was in the area.A spokesperson of Stena Line confirmed that the ferry, its passengers, or its crew were never in any danger at any time throughout the incident.Both the Royal Navy and Stena Line have pledged their full co-operation in the MAIB's investigation.

VITTORIA TO BUILD THREE PATROL BOATS FOR GREECE

January 28, 2019

Written by Nelson E. Dela Cruz

Published in Non-Naval (Maritime Security)

Italian shipbuilder Vittoria has signed a contract with Greece's Ministry of Shipping and Island Policy for the construction and delivery of three new patrol vessels for the Hellenic Coast Guard.The vessels will be used to patrol the EU's external maritime borders as well as conduct limited search and rescue (SAR) under the European Border and Coast Guard Agency, also known by its French name *Frontières extérieures* (Frontex)The total purchase cost is estimated to be approximately €42 million (US$47.88 million), around 90 per cent of which will be shouldered by Frontex.Delivery of all three vessels is scheduled for 2020.

Italy's New Submarine Rescue Ship
January 24, 2019 seawaves

Seaspan Awards Protecteur-Class Subcontract
January 19, 2019 adminmaple

January 17, 2019 – Seaspan Shipyards has awarded L3 MAPPS a contract for work on Canada's new Joint Support Ships (JSS). The award is one of several to be announced for Canadian suppliers supporting Seaspan's work on naval supply ships under the National Shipbuilding Strategy (NSS). This work will contribute to Seaspan fulfilling its Industrial and Technological Benefits Policy commitments.

Seaspan's James Mitchell said, "L3 MAPPS will provide the globally deployed Integrated Platform Management System (IPMS) for JSS. The IPMS will use advanced computer-based technology to control and monitor platform machinery and systems on board JSS, including advanced functionality, such as the battle damage control system, onboard training system, equipment health monitoring and other new IPMS capabilities."

L3 MAPPS has a long-standing relationship with the Royal Canadian Navy (RCN) spanning over 35 years. The company plays a major role as a Tier 1 supplier in the Halifax Class Frigate Upgrade program and has leveraged its participation on RCN vessels to pursue and win export opportunities in support of more than 20 navies.

Thanks to its work under the NSS, to date Seaspan has issued over $690M in committed contracts with approximately 540 Canadian companies. As the company continues to make progress on its NSS commitments, this supply chain is expected to grow as more Canadian companies are engaged in the shipbuilding industry. It is through its work on the NSS that Seaspan is directly and indirectly helping to employ thousands of Canadians from coast to coast.

Chief Executive Officer of Seaspan Shipyards Mark Lamarre said, "The National Shipbuilding Strategy is drawing on the expertise of Canadian suppliers from across Canada. L3 MAPPS' innovative work on the Joint Support Ship program demonstrates the capabilities of the domestic supply chain that Seaspan Shipyards is building while creating highly-skilled, middle class jobs for Canadians."

Official RCN photo.

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BUSINESSMANUFACTURING

Austal shares ride wave of revenue forecast boost

Daniel NewellThe West Australian
Monday, 4 February 2019 8:50AM

Austal is benefiting from better-than-expected procurement of its LCS program in the US.Shares in WA-based shipbuilder Austal have jumped almost 8 per cent after it increased full-year revenue projections by a whopping $500 million.In an announcement to the Australian Securities Exchange this morning, the company said it was expecting group revenue of $1.9 billion, up from a previously forecast $1.3 billion to $1.4 billion.Austal attributed part of the rise to better-than-expected procurement levels from the US Navy for its Littoral Combat Ships and increased volume and a new 94m ferry contract at its Vietnam operations.It has also benefited from a lower US, Aussie dollar exchange rate from its US, Vietnam and Philippines units. Austal, which will release its interim financial results in the week starting Monday, February 25, offered first-half earnings before interest and tax guidance of between $39 million and $41 million.Shares in the company were up 14.5¢, or 7.25 per cent, to $2.145 at 8.40am.The new revenue forecast comes as American regulators are investigating the shipbuilder over market disclosures related to a cost blowout on warships it manufactures for the US Navy.The WA company last week also said the Australian Securities and Investments Commission was looking into market announcements it made three years ago over earnings from the LCS program.The disclosures under review led to a June 2016 warning by Austal of a $122 million annual loss.

Ex-HMAS Darwin to be scrapped at Henderson

January 30, 2019. Article by Tim Slater

The Department of Defence has confirmed the ex-HMAS Darwin will be scrapped after 33 years of service. Parts of the ship, including its anchor, ship control console, three red kangaroos and the Commanding Officer's chair will be preserved for historical purposes.

The former warship is at the Australian Marine Complex Common User Facility at Henderson in preparation for destruction and recycling, a Defence spokesperson said.

There had been calls for the ship to be saved as a floating museum, but this option, along with the ship becoming a dive wreck, were rejected.

The Tasmanian and Queensland governments were both interested in acquiring the ship for dive wrecks. But the increasing costs of preparing the vessel due to stringent environmental controls led to the state governments abandoning their pursuit of the warship.

"There are no active expressions of interest from State Governments or other countries to acquire ex-HMAS *Darwin,"* the spokesperson said.

"Defence does not manage floating museums and has not received expressions of interest in acquiring the ex-HMAS *Darwin* from organisations who do.

"Therefore, the most efficient method of disposal is scrapping."

It will be the second FFG to be cut up at Henderson, after the ex-HMAS Sydney was recycled by the Birdon Group in 2017.

The spokesperson said a number of items from ex-HMAS *Darwin* will be preserved for historical purposes, including:

Anchor;
All portable Items – presentations, relics and trophies;
Jack staff
Pallet elevator doors (with mural);
CO chair
CO dining table
Ship control console
Three red kangaroos
Gangway banner
Gangway hut
Pegboard
Propulsion control console, and
CAS (Mk92) fire control console.

Meanwhile, the RAN's two remaing FFGs the HMAS Melbourne and HMAS Newcastle are due to be decommissioned this year.

There has been speculation that the Greek Government is interested in acquiring the vessels.

"The Government and Defence are still considering a range of disposal options for HMAS *Melbourne* and HMAS *Newcastle*, including Government-to-Government sale," the spokesperson said.

Naval Today

Germany issues RFI for new radars for Sachsen-class air defense frigates

zoomGerman Navy file photo of FGS Hessen off the coast of South Africa. Photo: PIZ Marine

Germany's defense procurement agency BAAINBw is seeking to replace the current SMART-L radars aboard the German Navy's Sachsen-class (F124) air-defense frigates, according to a request for information (RFI) issued on January 28.

As stated in the RFI, the goal is to replace the Dutch-built radars currently aboard with more modern ones that will have a broadened scope of engagement and a capability to defend against ballistic missiles.

BAAINBw envisions the construction, delivery and shipboard installation of three long range radars and IFF systems in addition to the establishment of a test and training facility at the German Navy's Engineering School in Parrow.

RFI deadline is March 5 and a request for proposals is expected to be issued a month later. The new systems are to be fielded between 2020 and 2026, according to the RFI.

With this new capability, frigates Sachsen, Hamburg and Hessen will be able to detect all missiles aimed at the NATO region and report the threat back to the NATO missile defense system headquarters in Ramstein, Germany.

The ships will not be able to shoot the missiles down on their own. Instead, the NATO headquarters will be in charge of deciding which unit or units will be tasked with the destruction of incoming missiles.

This role (of missile interception and destruction) has so far been the responsibility of US Navy's four forward-deployed Arleigh Burke-class destroyers equipped with the Aegis combat system. The destroyers are stationed in the Naval Base Rota in Spain.

Naval Today

US Navy places order for two more aircraft carriers as problems with lead ship persist

zoomAn artist conception of the aircraft carrier USS Enterprise (CVN 80), the third nuclear-powered aircraft carrier of the Gerald R. Ford-class. Photo: HII

The US Navy has awarded Huntington Ingalls Industries-Newport News Shipbuilding (HII-NNS) a contract for the construction of two new Gerald R. Ford-class aircraft carriers, CVN 80 and CVN 81, in a bid to achieve cost savings by ordering the two ships at once. As per the navy, the savings exceed $4 billion when compared to the navy's original cost estimates to procure these CVNs separately."Today marks a great team effort to drive out cost and maximize efficiency in government procurement," said Secretary of the Navy Richard V. Spencer."One contract for construction of the two ships will enable the shipbuilder flexibility to best employ its skilled workforce to design once and build twice for unprecedented labor reductions while providing stability and opportunities for further efficiencies within the nuclear industrial base."The announcement of the two-carrier buy comes in the wake of a scathing report published by Pentagon's testing office which said the lead ship in the class, the USS Gerald R. Ford (CVN 78), demonstrated poor or unknown reliability of systems critical for flight operations including newly designed catapults, arresting gear, weapons elevators, and radar.The report said the USS Gerald R. Ford would probably not achieve the sortie generation rate (SGR) (number of aircraft sorties per day) requirement, and would likely be short of berthing spaces. The berthing capacity is 4,660; more than 1,100 fewer than Nimitz-class carriers. Manning requirements for new technologies such as catapults, arresting gear, radar, and elevators are not yet determined and may require a return to standard manpower strategies.What is more, the ship's all new launch and recovery systems, the Electromagnetic Aircraft Launch System (EMALS) and the Advanced Arresting Gear (AAG), suffered ten failures each in over 700 shipboard launches and landings. "The reliability concerns are magnified by the current AAG design that does not allow electrical isolation of the Power Conditioning Subsystem equipment from high power buses, limiting corrective maintenance on below-deck equipment during flight operations," the report said.All the problems identified during the testing have delayed the ship's first deployment to 2022. USS Gerald R. Ford entered service in 2017.Refueling drone integration part of cost savingsAnnouncing the two-carrier construction deal, the navy said the contract includes ship integration costs of several modifications required to meet emerging threats including the F-35C Lightning II, MK 38 gun system and MQ-25 Stingray unmanned aircraft system. These modifications represent an additional $100 million in savings that is in addition to the $4 billion, since these new capabilities were not included in the original single-CVN Navy estimate. Plus, these new savings associated with new capabilities increases to $200 million if installed in the ship before delivery, in comparison to installing after ship delivery.Enterprise (CVN 80) is the third ship of the Ford-class and the numerical replacement for USS Eisenhower (CVN 69). CVN 81, not yet named, will be the fourth ship of the class and will be the numerical replacement for USS Carl Vinson (CVN 70). CVN 80 began advanced planning and initial long lead time material procurement in May 2016.The second ship in the class, future John F. Kennedy (CVN 79) is scheduled to be christened in the fourth quarter of 2019 and delivered to the US Navy in 2022.

Naval Today German submarine U36 starting five-month training mission in Norway

zoomGerman Navy photo of U36

German Navy Type 212 submarine U36 is scheduled to get underway from its Eckernförde homeport to start a five-month deployment in Norway.

During the five months, U36 will operate from the Royal Norwegian Navy base in Bergen.

The training deployment of U36 in Norway is part of the bilateral cooperation between the two countries which are jointly procuring six Type 212 CD (Common Design) submarines.

German shipbuilder ThyssenKrupp Marine Systems will deliver four submarines to Norway and two to Germany after being selected as the preferred bidder in February 2017.

While in Norway, U36 will take part in a number of international maneuvers which will include the Royal Navy-organized exercise Joint Warrior. The submarine will also play the role of an adversary to international vessels attending the Flag Officer Sea Training (FOST).

The submarine will also use the time in Norway to put future commanders to a test. The submarine is expected to perform torpedo launching exercises prior to its return home in June.

Type 212CD program

Norway and Germany are procuring six identical Type 212 CD (common design) submarines which will be based on the six Type 212 units already in service with the German Navy.

The new Type 212 CD submarines will share the low signatures of the Type 212 class but will have extended range, speed and endurance to allow worldwide operations, according to TKMS.

Norway is acquiring the air-independent propulsion submarines to replace the existing six Ula-class submarines that were commissioned between 1989-1992. The submarines were designed to last for 30 years and will reach the end of their life in the mid-2020s. The country has also brought in UK-based BMT Defence Services (BMT) as a consultant in the project.

In addition to the submarine cooperation, Germany and Norway have established a navy-to-navy cooperation, research and development cooperation and a missile cooperation.

Colombian Navy Welcomes Polish Tall Ship
February 5, 2019 seawaves

January 30, 2019 (Google Translation) – The National Navy, through the Naval Academy of Cadets “Almirante Padilla”, welcomed the Ship of the Maritime University of Gdynia “Dar Młodzieży”, from Poland, which will be in Cartagena this 30 and 31 January.

The event was held at the Edurbe pier, located in the Manga neighborhood, with the participation of the Polish Ambassador to Colombia, the Deputy Director of the Naval School and representatives of the Ministry of Maritime Economy of Poland; the band of musicians of the Naval School sang the anthem of Poland and typical Colombian airs at the arrival of the foreign ship.

It is the first time that the Polish school ship comes to Cartagena and does so in the framework of the centennial celebration of the recovery of Polish independence.

As hostess, the Naval Academy of Cadets “Almirante Padilla” received in its facilities the Commander of the ship and 90 young crew members. Rear Admiral Francisco Cubides Granados welcomed the Polish delegation and shared with visitors a little of the essence of the Colombian marine being.

During the day, integration activities were carried out with the Colombian Cadets, where they learned about the simulation capabilities of the Center for Research, Development and Innovation of Maritime Activities (CIDIAM), used for the training of the crews of the National Navy, the future Officers and the people of the sea.

In the same way, they carried out marine activities such as haulage, heavy line, among other sports, where they had the opportunity to work as a team and have fun in healthy competition.

This activity contributes to the international visibility of the Naval Academy of Cadets “Almirante Padilla”, giving the students the opportunity to learn about another culture and strengthen ties of friendship with students from another country.

USS GERALD R. FORD EXPERIENCES LAUNCH GEAR FAILURES

February 6, 2019

Written by The Australian Strategic Policy Institute

Published in Ships (Naval)

A new Pentagon report reveals that the US Navy's new aircraft carrier, USS *Gerald R. Ford*, experienced several critical failures of its launch and arresting gear during sea trials. Two years after its delivery, the ship is still plagued by reliability issues affecting its new EMALS (electromagnetic aircraft launch system).

The Pentagon has also reportedly identified problems with the navy's P-8A Poseidon aircraft. The P-8A's ability to conduct intelligence, surveillance, and reconnaissance operations has been hampered by reduced aircraft availability and sensor deficiencies.

FEATURE | IS THIS THE NEAR FUTURE OF AUSTRALIAN NAVAL SHIPBUILDING?

February 6, 2019

Written by Geoff Slocombe

Published in Ships (Naval)

HMAS Arunta

This is an exciting time for Australian naval shipbuilding. Two patrol vessel programs are underway, the Anzac-class frigate midlife capability assurance program (AMCAP) is completing the first of eight ships, and Hunter-class future frigates are to start construction in 2020, running into the 2030s for nine frigates. The air warfare destroyers are joining the fleet, while in the submarine world both the Collins-class life extension and the Shortfin Barracuda projects are generating a lot of commentary but no construction contracts yet.

ASC Shipbuilding's program of three air warfare destroyers is winding down. To retain skilled staff, the company started building its first offshore patrol vessel in mid-November 2018. It will build one more at Osborne in South Australia before 2020, when construction of the remaining 10 OPVs will move to Civmec at Henderson in Western Australia, to be completed by 2030.

BAE Systems at Henderson has just refloated the first AMCAP upgraded frigate, HMAS *Arunta*, for tests and sea trials. All eight Anzac frigates are expected to have completed their AMCAPs by 2023, and some will remain in service until 2032 or longer. On November 30, 2018, Austal delivered its first Guardian-class patrol boat to Defence, which immediately handed it over to representatives from the Papua New Guinea government. Twenty-one new patrol boats will be handed over to South Pacific countries by 2030.

This rather dry recital of current surface ship construction projects ignores the programs to extend the Collins-class submarines beyond their first notional retirements until operational capability is reached in the future submarine project, however that plays out. There will be continuous submarine building at Osborne from 2022. Full-cycle docking and life extensions for the Collins boats will probably move completely to Henderson in the early 2020s. So where is this post leading? Apart from annual maintenance activities, surface naval vessels typically remain in service until their half-life platform, sensor and weapons upgrades after around 15 years in service. By 2030, the Guardian-class patrol boats and the new OPVs will have half-life upgrades some years off. The air warfare destroyers might start their upgrades in 2033, while Anzac frigates will be being decommissioned and Hunter-class frigates will be years away from their half-life upgrades. So, unless export opportunities open up, will the surface naval shipbuilding program be a bubble that bursts in 2030 with only new frigates and submarines being built?Is the only answer export, as recent examples of export funding assistance for Austal and CEA Technologies show, until serious mid-life upgrade business becomes available around 2035?

Right now, the best export opportunities appear to be for patrol boats (witness the Australian sales campaigns by Austal in Trinidad and Tobago, and Lürssen in the Philippines).Australia's future frigates took nine years to get from white-paper concept to the Hunter-class contract in 2018. Defence Minister Christopher Pyne has said that Australia's defence attachés need to be our eyes and ears on the ground looking for prospects now, but of course with no responsibility to represent specific companies or designs. As *The Strategist's* defence editor, Brendan Nicholson, wrote recently, the best opportunities may be in supply chains for global shipyards in both new construction and sustainment. The Defence Global Competitiveness Grant program announced in January is a good example of helping small and medium enterprises go global.There's another significant factor to consider. Large surface warships may be on the way out, apart from a few required for expeditionary warfare, humanitarian assistance and disaster relief, diplomatic visits and showing the flag. The US Navy is investing in unmanned maritime vehicles such as the Sea Hunter. The future may well be with some surface warships supplemented by "mother ships", like Boeing's Echo Voyager 15.4+ metre unmanned underwater vehicle, providing command and control (C2) for fleets of autonomous underwater, surface, land and aerial vehicles.

I attended November's Autonomous Warrior 2018 exercise at HMAS *Cresswell* in Jervis Bay, which featured Five Eyes community technology and inputs from Australia's defence industry. There was an opportunity to review, with Professor Jason Scholz, head of Defence's Trusted Autonomous Systems CRC, realistic prospects of "ubiquitous C2" being achieved by 2035. By this, Scholz meant similar and significant C2 capability on every platform in each physical domain, to achieve mass-scale manoeuvre and robustness.Real progress is being made by Five Eyes countries through their Technical Cooperation Program—nine major technologies have been incorporated within the program over the past two years.What could this mean for Australia's future submarine capability?One crystal-ball viewing suggests that all six Collins-class submarines will get one or more life-of-type extensions of at least 10 years each time. Naval Group's AU$4 billion (US$3 billion) design contract will completed, and just two or three Shortfin Barracuda submarines or several "sons of Collins" will be built later this century. Relatively low-cost and highly capable large autonomous underwater and surface vessels will take over most of the intelligence, surveillance, reconnaissance, mine countermeasures, and even attack roles of the large manned submarines. Cont .from page 27

AUSTAL DELIVERS RO-PAX TO MOLSLINJEN

February 6, 2019

Written by Nelson E. Dela Cruz

Published in Ro-Pax World

Austal has delivered a newbuild Ro-Pax ferry to Danish operator Molslinjen. Named *Express 4*, the vessel has a length of 109 metres, a speed in excess of 40 knots, and capacity for over 1,000 passengers and 425 cars.It will arrive at its new home port of Odden after a 27-day voyage beginning at Austal's Henderson shipyard. *Express 4* is expected to commence regular ferry services in the Kattegat Sea from mid-March 2019.

HMAS PERTH(I) Memorial
A Navy League of Australia Western Australia Project

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A Navy League of Australia Western Australia Division Publication

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