



NAVY LEAGUE OF AUSTRALIA
WESTERN AUSTRALIA DIVISION

June 2019
Volume 3, Issue 6

DOWN THE VOICEPIPE

do you hear there!



HMAS Success at Port Klang Malaysia



HMAS MELBOURNE (III)

COMING UP

- Executive meeting will be held 05th. August 2109 at 1700
- HMAS Perth (I) Memorial Foundation Meeting to be held 6h. July 2019.
- Federal AGM will be held on the 26th—27th. October 2019 in Canberra.
- NLWA AGM will be held on the 29th. August 2019 commencing at 1900

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THIS NEWSLETTER ARE
PRINTED IN GOOD FAITH AND
DON'T NECESSARY REFLECT THE
VIEWS OF THE NAVY LEAGUE
OF AUSTRALIA**

HMAS PERTH (I) MEMORIAL



NL WA DIVISIONAL NEWS

Hi everyone welcome to this month's newsletter.. Your executive has been active again this month, three of us made a formal visit to HMAS Stirling and amongst talks welcomed the new CO Ainsley Morthorpe to WA and engaged with the XO Larry Minnon RAN.

Peter Jarvis and myself were invited to a ceremony onboard HMAS Arunta by the Commanding Officer CMDR Troy Duggan RAN to witness a traditional smoking ceremony by the elders of the Arrente tribe. A welcome to country was carried out by an elder from the local noongar elders. A tour of this impressive ship with all its modern updates followed then a lunch was provided in the wardroom.





HMAS PERTH (I) Memorial Foundation Incorporated

The Foundation held a strategy meeting last Thursday evening in the Town of East Fremantle council chambers and was attended by organisations supporting the memorial. Our bank account has now been opened and completes the list of regulatory requirements to proceed forward. Apologies from five other members down with the flu. Photo courtesy David Nicolson



Standing left to right: Jim O'Neill Mayor East Fremantle, David Catz Congan Industries, CDRE Bob Trotter RAN RTD, Wes Olsen Historian, Colin Bancroft Families Rep, CAPT Ainsley Morthorpe RAN CO HMAS Stirling, Ian Holthouse President Naval Association, JMDR Jim O'Neill ANC RTD Project Manager, Daniel Cogan Colgan Industries, Matt Cullen Grants.
Sitting : Cheryl Bancroft minute taker, CAPT Angela Bond RAN Chairperson, Hon Lisa O'Malley MLA

HMAS PERTH (I)



Naval Today

Frigate Arunta rejoins Australian Navy fleet after AMCAP upgrade



zoomHMAS Arunta returns to Fleet Base West after completing upgrades at Henderson Shipyards in Western Australia. Photo: Royal Australian Navy

Royal Australian Navy Anzac-class frigate HMAS Arunta officially rejoined the fleet after completing her Anzac Midlife Capability Assurance Program (AMCAP) upgrade.

Arunta is the first ship to undergo the program which provides significant improvements to the ship's key sensor and communications systems.

To mark the occasion, a number of elders from the Arrernte Tribe, that the ship takes its name from, traveled from the Northern Territory to Western Australia to undertake the traditional smoking ceremony, while a Welcome to Country was provided by local Noongar elders.

The AMCAP upgrade includes a platform systems remediation program to improve platform reliability and maintainability.

A key component of the upgrade improves the Anzac-class air search capability by replacing the legacy long range air search radar with a new digital phased array radar developed by Australian company CEA Technologies. This radar complements the existing anti-ship missile defense system.

AMCAP also includes an upgrade to the ship's communications systems, enhancing the communications capabilities of the Anzac class since the platform was introduced approximately 20 years ago.

Arunta will soon proceed to sea to complete extensive testing and sea trials as part of the upgrade.

"Re-joining the fleet marks an incredible achievement by the ship's company, our support organisations, and our Australian defence industry partners in the Warship Asset Management Agreement Alliance," Arunta's commanding officer, Commander Troy Duggan, said.

"We have worked hard together to deliver one of the world's most advanced warships, and are looking forward to getting underway for sea trials very soon."



Photo: Royal Australian Navy

Naval Today

First Australian frigate to complete AMCAP upgrade tests stability



zoomRoyal Australian Navy photo of HMAS Arunta during the incline test.

The first Royal Australian Navy Anzac-class frigate to undergo the Anzac Midlife Capability Assurance Program (AMCAP) upgrade has completed the inclining experiment at Henderson Shipyard, Western Australia to test stability.

HMAS Arunta underwent the test after more than a year out of the water as part of the upgrade.

An inclining experiment is a test performed on a ship to determine its stability, lightship weight and the coordinates of its center of gravity. The experiment is applied to newly constructed ships greater than 24m in length, and to ships altered in ways that could affect stability.

The weight of a ship can be readily determined by reading draughts and comparing with the known hydrostatic properties. The 'metacentric height' (GM), which dominates stability, can be estimated from the design, but an accurate value must be determined by an inclining experiment.

The experiment involves positioning the ship in a still body of water and applying weights in varying configurations throughout the ship and measuring the list of the ship for each configuration.

The experiment that was performed on HMAS Arunta will be used as a basis for updating the trim and stability handbook for all future AMCAP ships.

The upgrade, being implemented by the Warship Asset Management Agreement (WAMA), includes significant improvements to major platform systems such as the communications center, and the replacement of the ship's long range air search radar.

As explained, the replacement mast is taller and wider than the existing mast so that it can accommodate the new CEA L-Band radar system, while retaining the existing anti-ship missile defense radar capability. The new L-Band radar capability will be integrated into the existing combat management systems of the ships by SAAB Australia.

Arunta's Marine Engineer Officer, Lieutenant Commander Leonard Woodman, said the inclining experiment is another important milestone for both Arunta and the Anzac Mid-Life Capability Assurance Program (AMCAP).

"The inclining experiment, while being a standard practice after a significant upgrade, has provided good data that will support all the ships that come after us on the AMCAP," he said.

The AMCAP aims to remediate obsolescence issues and upgrades ship systems, positioning the Anzac Class ships for sustainment and maintenance of its warfare systems capabilities.

WAMA is an alliance consisting of the Commonwealth, BAE Systems Australia, Saab Australia and Naval Ship Management Australia.

Arunta is the first ship to complete the AMCAP upgrade and is scheduled to return to the fleet this year. HMAS Anzac, Arunta's sister ship has already started upgrade work at the Henderson facility.

HMAS Arunta re-joins fleet with traditional smoking ceremony

Published on 18 June 2019 LEUT Gary McHugh (author), POIS James Whittle (photographer), SBLT Samantha Brandstater (photographer)

Location(s): Fleet Base West, WA

Topic(s): HMAS Arunta (F151) (<http://news.navy.gov.au/en/Jun2019/Fleet/5274/HMAS-Arunta-re-joins-fleet-with-traditional-smoking-ceremony.htm?tpid=132&tpl=13>)



Connie Craig, with fellow Arrernte tribal group members, Kumalie and Nari, addresses members of ship's company and guests during a Welcome to Country and smoking ceremony held onboard HMAS Arunta at HMAS Stirling, Western Australia.

A cold, wet day didn't spoil the feeling of optimism that surrounded the Welcome to Country and smoking ceremony that marked the recent return of HMAS Arunta (<http://www.navy.gov.au/hmas-arunta-ii>) to Fleet Base West after a 20-month Anzac Midlife Capability Assurance Program (AMCAP) upgrade.

Arunta is the first ship to undergo the program which provides significant improvements to the ship's key sensor and communications systems.

To mark the occasion, a number of elders from the Arrernte Tribe, that the ship takes its name from, travelled from the Northern Territory to Western Australia to undertake the traditional smoking ceremony, while a Welcome to Country was provided by local Noongar elders.

Arunta's Commanding Officer, Commander Troy Duggan, said the ship was proud to re-establish its connection with the Arrernte people, as it was important to give the crew a sense of the rich cultural heritage they are now a part of.

"The presence of tribal representatives from both the Arrernte and Noongar people at the ceremony was greatly appreciated by the entire ship's company," he said.

“Our long connection with our Indigenous namesake tribe remains an internationally unique and precious link – no matter what challenges and difficulties we face, I am sure we will face them with the same strength and resilience that our namesake people have done for the past 30,000 years.

“Re-joining the fleet marks an incredible achievement by the ship’s company, our support organisations, and our Australian defence industry partners in the Warship Asset Management Agreement Alliance.

“We have worked hard together to deliver one of the world’s most advanced warships, and are looking forward to getting underway for sea trials very soon.”

The AMCAP upgrade includes a platform systems remediation program to improve platform reliability and maintainability.

A key component of the upgrade improves the Anzac class Air Search capability by replacing the legacy long range air search radar with a new digital phased array radar developed by Australian company CEA Technologies. This radar complements the existing anti-ship missile defence system.

AMCAP also includes an upgrade to the ship’s communications systems, enhancing the communications capabilities of the Anzac class since the platform was introduced approximately 20 years ago.

Work was also carried out improve the ship’s habitability for the crew, while ensuring through-life supportability and reduced total cost of ownership into the future.

Arunta will soon proceed to sea to complete extensive testing and sea trials as part of the AMCAP upgrade.

Arunta is the second Australian warship to carry the name – *HMAS Arunta (I)* (<http://www.navy.gov.au/hmas-arunta-i>) was a Tribal class Destroyer commissioned in 1942, serving with distinction in New Guinea and the Pacific between 1942–1944, and at the Battle of Leyte Gulf in 1944 and Lingayen Gulf in 1945.

Imagery is available on the Defence Image Gallery: <https://images.defence.gov.au/S20191510> (<https://images.defence.gov.au/S20191510>).





HMAS Melbourne R21

To be 'pooped'

The word 'poop' originally comes from the French word 'la poupe', meaning the stern of the ship.

It was a middle-English word used as far back as the late 1300s - the 'poop' deck was the aftermost and highest deck of a ship, where it usually formed the roof of a cabin in the stern.

It came to be used to describe when a ship was overwhelmed by a wave breaking from behind. When a ship was pooped, it could either be propelled forward or the wave could break over the stern (possibly causing the wave to swamp the ship).

From around the 1920s, the phrase evolved to mean 'to be exhausted' or to give up due to fatigue.



SEA STORIES

Ocean Liner Southern Cross

By Peter Vassilopoulos

The Southern Cross was built in the 1950s. After serving as a world wide passenger liner, in various places and with changing names, she was moved to the route England to South Africa in the 1960s. That was when I first saw the vessel. It was a newsworthy occasion. The Southern Cross hit the news as the first ship to have the engines in the stern of the vessel, a design that was followed by many ships thereafter. The funnel was near the stern and that identified it for what it was.

My wife Carla went to Cape Town from Southampton aboard the Southern Cross in 1970 after a lengthy tour of Europe. By coincidence, I had just returned by air from a three-month tour of Europe when I met her just after her arrival in Cape Town. On the job as a radio news reporter, I was assigned to meet passenger liners (or cruise ships as they later became known) in the Cape Town city harbour every Wednesday to interview the captain and personalities who happened to be aboard. It was a pleasant job. As usual, I was invited by the captain to join him for breakfast where he had a special table for special guests.

I was intrigued to meet some other interesting people aboard the ship: a couple who were among South Africa's top singing entertainers, Des and Dawn Lindberg, very much like Sonny and Cher at the time. In the next couple of years, the Lindbergs joined me for lunch a number of times on visits to the city. I also met Lord Douglas of Kirtleside, also known as Sholto Douglas, the man who had been head of the Royal Air Force during the Second World War.

He was an interesting gentleman and, after having breakfast together at the captain's table, he invited me to join him and his wife in their cabin to chat some more and join them for a glass of Mimosa, something I had not heard of previously.

Now the interesting thing about both my wife and my experiences with the liner Southern Cross was that, years later, we boarded the vessel in Los Angeles for a cruise at Christmastime. We had no idea at first that it was the same ship.

It was in the late 1980s that my wife and I were in Los Angeles visiting some very close friends, Dave and Arline Parker (the founder and manufacturer of Pelican Products... watertight suitcases and other equipment for the diving industry, fire department, police and military). After spending some time with them, we decided to do a short cruise before driving back home to Vancouver. So we made reservations and headed down to the LA harbour and boarded a cruise ship by the name of Azure Seas that was about to do a four-day trip into Mexico with a first overnight stop at Catalina Island, a place we had visited quite frequently with the Parkers on a variety of boats they owned over the years.

Carla and I boarded the vessel without really taking note of the style of the ship. The name on her, Azure Seas, was totally new to us. As we made our way to the cabin we stopped to look, in amazement, at a large panel covered with photos and data about the Southern Cross. Why, we asked ourselves, would the Azure Seas have a large panel of data about the Southern Cross?

Then it dawned on us. We were aboard the ship that Carla had arrived on in Cape Town and where I had met those personalities over breakfast with the captain. I had forgotten that my wife, Carla, had been a passenger on board the Southern Cross in 1971. I met her a few weeks later while attending a golf tournament where Gary Player, whom I had come to know through mutual friends, was the big attraction.

The Captain of the Azure Seas was Greek. When he was introduced to us and heard my last name, he was interested to know that I was of Greek descent and invited us to join him in his cabin for appetizers that evening. We did, and we also ended up in the wheelhouse with him as we departed Ensenada in Mexico on the return trip to Los Angeles.

Another interesting thing about the Southern Cross is that her name was changed to SS Calypso and then SS Calypso I for a while in 1973 before becoming the Azure Seas. Interestingly I had the pleasure of meeting the owner of the well-known research vessel Calypso, Jacques Cousteau, during Expo in 1986, having known his son Jean-Michel for some years (he introduced me to his dad in the most amusing way - he stopped a meeting in progress in Vancouver by calling his dad to leave the podium and cross the floor through the crowd to come and meet me).

Peter Vassilopoulos, Publisher, Pacific Marine Publishing, is a long-time boating author and authority on the waterways, islands and installations on the coast.



52 — BC Shipping News — May 2019

SWEDISH SUBMARINE UPPLAND COMPLETES MID-LIFE UPGRADE

June 21, 2019 Written by [Baird Maritime](#) Published in [Submersibles \(Naval\)](#)



Image: Saab

HSwMS *Uppland*, the Swedish Royal Navy's second *Gotland*-class submarine, was relaunched at Saab's Karlskrona shipyard on Wednesday, June 19, following a comprehensive mid-life upgrade programme. The upgrade saw the submarine lengthened by two metres to accommodate an improved air independent propulsion (AIP) system. It has also been fitted with a complete new mast suite as well as enhanced sonars, sensors, and management and communication systems. *Uppland*'s relaunching comes 12 months after sister ship HSwMS *Gotland* finished undergoing its own mid-life upgrade at Saab

NAVY'S LONGEST SERVING SHIP COMPLETES FINAL VOYAGE

Written by [Baird Maritime](#) Published in [Naval auxiliary/support vessels](#)



Image: US Navy Photo by Mass Communication Specialist 1st Class

Holly L. HerlineHMAS Success

The Royal Australian Navy's (RAN) longest serving ship, HMAS *Success*, has completed its final voyage after 33 years' service to Australia. *Success*, an 18,000-tonne Duranc-class Auxiliary Oiler Replenishment (AOR) ship, almost 160 meters in length and known as "The Battle Tanker," was the last vessel built for the RAN at Sydney's Cockatoo Island dockyard. Commissioned in 1986, the ship has steamed over one million nautical miles, participated in a world record 11 Rim of the Pacific (RIMPAC) exercises, earned battle honours for service during the 1991 Gulf War and East Timor in 1999, and helped search for missing Malaysian Airlines Flight 370. *Success* will be decommissioned at a formal ceremony at Fleet Base East in Sydney on Saturday, June 29. Plans for the vessel after decommissioning are under consideration by the Australian Government.

Thomas Global completes delivery of Australian submarine control system



Maritime and Undersea Warfare | 20 June 2019 | Stephen Kuper

Thomas Global Systems has completed delivery of key components for Stage 2 of the Integrated Ship Control Management and Monitoring System (ISCMMS) Obsolescence Remediation Project for the Royal Australian Navy's Collins Class submarines.

Saab Australia, the ISCMMS project manager, developer and provider, selected Thomas Global to design and manufacture hardware for the updated distributed control modules and fixed conning consoles as form-fit-function replacements for the current units.

CEO of Thomas Global Systems, Angus Hutchinson, said, "We are pleased to have delivered Stage 2 of the project on time and within budget in support one of Australia's most important defence assets."

In January 2018, Saab was awarded the Stage 2 project for the upgrade of HMA Ships Dechaineux, Rankin, Sheean and Farncomb, following the earlier upgrade of HMA Ships Collins and Waller. Saab Australia is undertaking the ISCMMS upgrade project in collaboration with ASC, the prime contractor for the upkeep, update and upgrade of the Collins Class submarine fleet.

"Thomas Global is honoured to continue our long-term support for the Collins Class program in increasing the fleet's availability for the Royal Australian Navy," Hutchinson said.

Thomas Global maritime defence systems are a crucial part of mission-critical military surface ship and submarine platforms around the world. Drawing on decades of experience in complex defence systems design and integration, Thomas Global's command and control, human-machine interface, and combat sub-systems reinforce mission assurance and performance on the seas.

The company's record includes participation in major naval programs such as Collins Class submarine and Anzac frigate. Thomas Global's turnkey solutions encompass concept through design, qualification, military approval, deployment and sustainment.

The six submarine class of HMAS Collins, HMAS Farncomb, HMAS Waller, HMAS Dechaineux, HMAS Sheean and HMAS Rankin achieves an optimum match between innovation and technical superiority. The names of the Collins Class submarines commemorate the memory of six members of the RAN who served their country with distinction.





Your chances of meeting a former navy, army or air cadet among your comrades are high, with around 45 per cent of cadets going on to join the NZDF. *Navy Today* talks to the Commandant of the New Zealand Cadet Forces, Lieutenant Colonel Grant Morris, about the ongoing contribution of the Cadet Forces to the NZDF.



Youngsters and adult leaders wanting camaraderie and an organisation geared around comradeship, activities and public service could turn to the Scouting Association, Guides or the Brigades. But over 3000 New Zealanders have chosen the Cadet Forces.

The big point of difference is the unique relationship with the New Zealand Defence Force. "No other community organisation has that," says LTCOL Morris. "We celebrate that at every opportunity."

He stresses that they are not a recruiting arm of the New Zealand Defence Force. But, with the direct connection to NZDF, a career in the services is presented as a good option.

It certainly was for LTCOL Morris, who was an Air Cadet before joining up. He's excited about his posting as the Commandant, because it's a chance to give back to an organisation he was part of 30 years ago.

As well as the numbers of cadets who carry on to the NZDF, research by the Cadet Forces has shown that former cadets have longer, more committed careers in the Defence Force.

The organisation doesn't target cadets as potential recruits, he says, but

for many it seems the natural next step. "The opportunities are offered," he says. "We get Defence Force recruiters coming in, showcasing different careers in the Defence Force, the opportunities in each service."

Of the three different components, the Navy Cadets are smallest at 354 cadets, 12 per cent of the total number (2755 as of March), spread across 16 units. Air Cadets are the largest, accounting for nearly 60 per cent of total cadets, and the Army Cadets constitute the remainder. There are also 474 officers, underofficers and officer cadets across the three corps.

"We do struggle with small units, who are reliant on the support of the community. It's also a struggle to attract enough adults to become cadet forces officers. These days, they are expected to do more, especially around safety and compliance."

Our cadet officers and adult volunteers are a complex mix, he says. "We have ex-Defence Force people, cadets who have come through and want to give back, and parents of cadets that want to be involved in something special." Training a Cadet Officer takes about a year, for someone with no prior military experience.

"Potential cadet officers are required to obtain a police vetting and then attend the unit activities for six months, in civilian attire, to learn about the organisation. We then start the commissioning programme with a series of selection interviews. Those successful will then complete some online training, be issued with a uniform, and then attend a commissioning course for nine days. If successful, they'll get a probationary commission for 12 months, and head out into the units."

"We do require a basic fitness assessment. That is in order to assess the officer is capable of keeping everybody safe during outdoor activities. We do a five-kilometre forced walk, with a small pack. It's designed around being in bush, and being able to get out to a road if something happens."

Currently serving NZDF personnel can also become involved as supplementary staff in a cadet unit.

Cadet Force numbers overall have been steady in the last few years. "We've recently introduced some of the biggest changes in our programme for the last 30 years, and some people opted to leave. But equally we have a large cohort of very able and motivated leaders coming through,



who can see the direction we are travelling and are raring to go."

The Cadet Forces has introduced a new code of conduct, new duty of care policies that reflect changes in legislation, and a new performance and development review system.

"We've got a much better relationship with the Defence Force, we've got new branding, a fully integrated Headquarters, and new development models for both officers and cadets."

For many of New Zealand's communities, the Cadet Forces are the face of the Defence Force during Anzac Day. "Typically, on Anzac Day, the Cadet Forces will participate and support 360 separate events, with cadets going from one service to another. That's all day long, giving service to the nation. It's selfless service, from a teenager, and they do it because they are proud to wear the uniform."

Cadets are, in the end, an organisation based on a military ethos. "It's not about shooting and giving orders. It's about leadership, and using the principles of a military framework to challenge and get the best out of individuals, officers and cadets. They are proud to wear the Defence Force uniforms, and be part of the NZDF whānau."

"What I witnessed up the range that day amazed me. The amount of Courage, Commitment and Comradeship on display was inspiring. These kids absolutely loved what they were doing and were proud to wear the uniform. The cadets are all keen to learn and meet regular force personnel therefore I highly recommend getting along to a parade night and sharing your experiences with them."

- Sailor of the Year 2018 LET Chris Lord

More information about the New Zealand Cadet Forces can be found on the website www.cadetforces.org.nz or by contacting any of the NZCF offices in Auckland, Ohakea, Trentham and Burnham.



What Cadets offer our future Navy

Warrant Officer Wayne Dyke, Warrant Officer of the Navy, says the Navy cadets are a useful representation of New Zealand society and provide a good picture of what future recruiting demographics might be. "Navy cadets are a good 'test-and-try' for people considering a future in the Defence Force."

He also thinks the Cadet Forces, representative of a young generation, could teach the regular forces a few things about acceptance of others, "whether it's gender, sexual orientation, financial status or ethnicity".

He's opened a number of initiatives to promote the Cadet Forces, including the creation of an amnesty clothing bin for ex-regular forces, to return kit. "As a result of that initiative, we can issue senior rates tunics to the Petty

Officers. The other effort I'm putting in, is encouraging the senior rates to pay more attention, more effort to units, and interact more with them."

What Navy cadets long for, he says, is interaction with the Navy. "Ship visits, or our sailors going along to parade nights, and getting involved. Even a simple newsletter every quarter from a ship goes a long way. Or it could be a donation to a unit from the ship's welfare fund. Cadet units are like every other community group. They are competing for every donation."

The biggest challenge for cadets is recruiting the next generation, but more so with the cadet officers. "They give up their weekends, their time."

Remembering the lost submarines of WWII

Published on 19 June 2019 US Navy FT1 (SS) Derek Hammerstad (author)

Location(s): Albany, WA

Topic(s): Submarines (SSG)

(<http://news.navy.gov.au/en/Jun2019/Events/5277/Remembering-the-lost-submarines-of-WWII.htm?tpid=158&tpl=13>), Naval Heritage and History

(<http://news.navy.gov.au/en/Jun2019/Events/5277/Remembering-the-lost-submarines-of-WWII.htm?tpid=219&tpl=13>), Memorial Service

(<http://news.navy.gov.au/en/Jun2019/Events/5277/Remembering-the-lost-submarines-of-WWII.htm?tpid=389&tpl=13>)



SUBFOR Members, both USN and RAN, join with local Naval Cadets from TS Vancouver for a unified photo.

Trumpets sounded out the anthems of Australia and the United States at Albany's National Anzac Centre on 26 May, as all in attendance stood to attention - remembering 52 US submarines lost during the Second World War.

The audience included cadets from TS *Vancouver*, retired and active duty sailors from the United States Navy, Royal Australian Navy and Royal Navy, as well as their families and two WWII veterans.

All had gathered in the West Australian town to pay their respects to the brave souls who made the ultimate sacrifice, remaining on an eternal patrol and forever watching over American and Australian submariners.

US Navy Commander William Dull delivered a moving speech that encompassed how the events of the past affected the relationship of the two countries and the traditions their militaries still abide by today.

"We stand on the shoulders of those who came before us.

June 19, 2019

Written by [Trevor Hollingsbee](#)

Published in [Ships \(Naval\)](#)



US Navy carrier Abraham Lincoln

Maritime forces need to possess at least one of two types of prime asset in order to be seen as “first division” navies, namely nuclear-powered submarines, and aircraft carriers. Both these types of warship offer long range, sustained in-theatre presence, as well as major hitting power. Just six nations currently operate nuclear subs, namely the USA, UK, France, Russia, China and India, although reports indicate they will very likely eventually be joined by Brazil and Pakistan. The question of how many navies currently operate aircraft carriers is a difficult one to answer precisely. Aviation-capable, through-deck ships which, nominally at least, are primarily helicopter-equipped amphibious warfare vessels, but can also operate short take-off and landing (VSTOL) F-35B Lightning II Joint Strike Fighters, are already in service, and the type is proliferating. Only a handful of navies, though, operate “classic” aircraft carriers, some fitted with catapults, and arrestor wires, for the launch and recovery of aircraft, others operating VSTOL fighter bombers.



The French Navy's Charles de Gaulle The US Navy has 11 nuclear-powered carriers, the French have one. Russia has one oil-fired steam turbine powered, VSTOL aircraft-equipped, carrier. China has one, with another due in service soon, while, India has one ex-Soviet example. UK's two new big Queen Elizabeth-class gas turbine/electric motor powered carriers are intended mainly for deep-sea strike, and interception, by F-35Bs, and anti-submarine operations by Merlin helicopters. They have only a secondary role in support of amphibious warfare, although second-of-class, *Prince of Wales*, currently nearing completion, is receiving some modifications to enhance its utility in such a role. Also F-35B-capable are the Italian Navy's amphibious warfare vessel/ aircraft carrier *Cavour* and the Royal Spanish Navy's, currently Harrier fighter bomber-equipped, landing platform (helicopter) (LPH) *Juan Carlos I*, although Madrid has yet to order the plane. The Royal Thai Navy's small carrier is VSTOL capable, but is currently only equipped with helicopters. Japan, for its part, is to upgrade its two flat-topped “destroyer helicopter” warships to operate the F-35B. The USA, India, China and France all have big new carriers in the pipeline, but the overall trend is undoubtedly towards more cost-effective dual purpose vessels, designed for both amphibious warfare and VSTOL fighter bomber operations, with some new players set to enter the game.

Already operating such ships are Italy, Spain and the US. South Korea has recently launched the LPH *Marado*, which is reportedly equipped to operate the F-35B. In view of Japan's imminent re-entry into the seaborne fixed-wing aviation world, it would indeed be surprising if South Korea were not to follow suit.



Trieste. Photo: Fincantieri

In build for the Turkish Navy is *Anadolu*, based on Spain's *Juan Carlos I*, while Italy has recently launched the LPH *Trieste*, which has a twin-island configuration, indicating optimization for the operation of a significant number of F-35Bs. Brazil may yet modify its ex-British helicopter carrier *Atlantico* to support VSTOL operations, but there have been, to the surprise of some analysts, no reports that the Royal Australian Navy is to operate VSTOL aircraft from its pair of partly Spanish-built landing helicopter (dock) ships *Canberra* and *Adelaide*, although they both feature ski-jump take-off ramps at the bow. Despite the proliferation of the type of vessel which is currently underway, aircraft carriers remain a controversial type of warship, subject to frequent denigration by some defence analysts. Critics point to the heavy cost of carriers, compounded by the need to maintain escort flotillas of pricey, sophisticated warships. A further strong and often-heard criticism of carriers is the vulnerability inherent, particularly in an age of very effective real time satellite surveillance, in their considerable size. Also, some analysts doubt the long term strategic value of carrier operations, when the main threats to maritime security are posed, in the medium to long term, by terrorism and asymmetrical warfare in the littoral. Supporters of the type, on the other hand, point to the wide range of capabilities which can be provided by a single aircraft carrier hull. These capabilities include: Air interception· Land and sea strike· Reconnaissance· Electronic Warfare· Airborne early warning· Amphibious landing support· Unmanned aerial vehicle operations· Anti-submarine warfare· Comprehensive command and control. Supporters also query the alleged high vulnerability of carriers, pointing to the very high top speed, of nuclear-powered carriers in particular, which enables rapid repositioning, including deceptive manoeuvring, and that carriers can also readily take advantage of cloud cover to reduce their detectability from above. Their speed also enables rapid response and flexibility. A further advantage noted is the political/diplomatic impact of the deployment of carriers, which can, if necessary, remain poised and highly visible, for prolonged periods in areas of high maritime tension. Controversy over the viability of aircraft carriers seems set to continue, but there is as yet no sign of a halt to the proliferation of these high status warships.



key enablers | 12 June 2019 | Stephen Kuper

Since 2009, successive Australian governments have sought to slowly shift the nation's focus away from the Middle East towards what has become known as the Indo-Pacific. As the driver of both economic and strategic competition the 21st century, Australia's own region is increasingly central to the nation's long-term national interests, but what constitutes the nation's primary area of responsibility?

Australia emerged from the Second World War as a middle power, essential to maintaining the post-war economic, political and strategic power paradigm established and led by the US – this relationship, established as a result of the direct threat to Australia, replaced Australia's strategic relationship of dependence on the British Empire and continues to serve as the basis of the nation's strategic policy direction and planning.

However, as a nation Australia has often walked the line, balancing traditional middle power and minor power characteristics, which have served to exacerbate the partisan nature of the nation's strategic and defence policy making.

In particular, Australia has historically been dependent upon the benevolence of the broader international community, at both an economic and strategic level – this is most evident in two specific arenas, firstly the nation's continued economic dependence on China and strategic dependence on the US.

The emergence of economic, political and military superpowers like China and India continue to develop as the economic, political and strategic powers at the core of Indo-Pacific Asia. Additionally, Australia has also witnessed the development of the region's periphery powers including Indonesia, Vietnam and Thailand, each with competing priorities and objectives, combined with the rise of complex asymmetric challenges to national security serving to challenge the established geo-political, economic and strategic security and prosperity of the region.

Recognising these factors, combined with the traditional understanding of the Indo-Pacific – which is defined as the biogeographic region encompassing the tropical waters of the Indian Ocean, the western and central Pacific Ocean and the seas connecting the two in the general area surrounding Indonesia and Australia – what is Australia's primary area of responsibility?

Australia in the Asian century

While much of the post-Cold War focus had been on the Middle East, countering violent extremism and asymmetric threats like violent extremists and the growing prominence of organised criminal groups – the 2009 Defence White Paper identified "Australia's enduring interest in the stability of what it called the wider Asia-Pacific region".

"The Indo-Pacific is a logical extension of this concept, and adjusts Australia's priority strategic focus to the arc extending from India through south-east Asia to north-east Asia, including the sea lines of communication on which the region depends," it said.

Building on this recognition, Australia's 2013 Defence White Paper sought to expand the growing importance of the Indo-Pacific following a growing economic and strategic pivot by the US towards the region with a renewed focus on ensuring the peaceful rise of major Asian nations.

These developments have resulted in increasing suspicions towards China – particularly following Chinese assertiveness throughout the region, such as in the Taiwan Strait and the international waters of the South China Sea (SCS) – and has brought the rising power into contest with both the United Nations and the broader regional community.

While recognising the rise of China and, to a lesser extent, India is a major milestone, the 2013 Defence White Paper also recognised the growing importance of other regional powers including Japan, South Korea and Indonesia within the regional strategic power paradigm and Australia's continued engagement and role within the rapidly shifting sands of the Indo-Pacific.

"The emerging Indo-Pacific system is predominantly a maritime environment with south-east Asia at its geographic centre. The region's big strategic challenges will last for decades and their mismanagement could have significant consequences ... For Australia, this more complex environment will make it more challenging for us to achieve or influence outcomes. Asian countries will balance a broader range of interests and partners, and Australia's voice will need to be clearer and stronger to be heard," the 2013 Defence White Paper explained.

The rules-based order 2.0 and Australia's place in it

The 2016 Defence White Paper moved quickly to recognise the rapidly evolving nature of the economic, political and strategic status quo of the Indo-Pacific – the DWP correctly identifies: "Australia's strategic outlook to 2035 also includes a number of challenges which we need to prepare for. While there is no more than a remote prospect of a military attack by another country on Australian territory in the foreseeable future, our strategic planning is not limited to defending our borders."

This clearly identifies a shift in the nation's attitude towards the Indo-Pacific.

"Our planning recognises the regional and global nature of Australia's strategic interests and the different sets of challenges created by the behaviours of countries and non-state actors such as terrorists," it said.

This recognition was used as the basis for informing the acquisition and modernisation plans for the broader Australian Defence Force with a specific focus on modernising and recapitalising the Royal Australian Navy – incorporating Australia's defence capabilities within allied task groups based on the US remaining the pre-eminent global military power.

However, the rise of China and resurgence of Russia in particular, combined with the aforementioned emergence of other regional powers, is limiting the capability of the US to operate unencumbered or unchallenged, requiring Australia to rapidly develop and embrace a new strategic doctrine focusing on the nation's immediate strategic environment – from the south Pacific to the SCS through to the Diego Garcia islands in the Indian Ocean.

The nation is defined by its relationship with the region, with access to the growing economies and to strategic sea-lines-of-communication supporting over 90 per cent of global trade, a result of the cost effective and reliable nature of sea transport. Indo-Pacific Asia is at the epicentre of the global maritime trade, with about US\$5 trillion worth of trade flowing through the SCS and the strategic waterways and choke points of south-east Asia annually.

For Australia, a nation defined by its relationship with traditionally larger, yet economically weaker regional neighbours, the growing economic prosperity of the region and corresponding arms build up, combined with ancient and more recent enmities, competing geo-political, economic and strategic interests, places the nation at the centre of the 21st century's 'great game'.

Australia's security and prosperity are directly influenced by the stability and prosperity of the Indo-Pacific, meaning Australia must be directly engaged as both a benefactor and leader in all matters related to strategic, economic and political security, serving as either a replacement or complementary force to the role played by the US – should the US commitment or capacity be limited.



key enablers | 18 June 2019 | Stephen Kuper

The strategic buttress of congested waterways and densely populated archipelagos of the 'sea-air gap' has formed the backbone of Australia's defence and national security policy since the late-1980s – however, as the region continues to evolve it is critical to understand the role the 'sea-air gap' will continue to play in strategic calculations.

Australia's involvement in the Vietnam conflict at the behest of the US signalled a major shift in the direction of the nation's strategic policy that continues to influence Australia's doctrine to this day. Domestic political back lash and a changing geo-strategic environment would see Australia adopt an arguably more isolationist policy, focusing almost entirely on the 'Defence of Australia'.

While Australia's alliance with the US further enhanced the nation's position as an integral US ally – mounting domestic political dissatisfaction, the new Whitlam government and the mounting cost of Australia's involvement in the conflict, combined with rapidly declining US support for the conflict, saw the nation's post-Second World War strategic reality and doctrine begin to shift away from regional intervention and towards a policy favouring the defence of the Australian mainland and outlying territories.

This shifting domestic and regional environment saw the formalisation of the Defence of Australia (DoA) policy in the 1986 Dobb report and the subsequent 1987 and 1994 Defence White Papers, which established the 'sea-air gap' as a strategic 'buffer zone' for Australia enabling the reorientation of Australia's strategic and broader defence industry posture, shifting away from what Dobb identifies: "Until the late 1960s, Australian defence planning and policy assumed that our forces would normally operate in conjunction with allies, and well forward of the continent. We saw our security inextricably linked with the security of others."

Dobb's report leveraged the 1973 Strategic Basis paper's focus on the nation's isolation to reinforce the concept of the 'tyranny of distance' as justification for reducing Australia's interventionist role and capabilities in the region: "Australia is remote from the principal centres of strategic interest of the major powers, namely western Europe and east Asia, and even those of secondary interest, the Mediterranean, the Middle East and the north-west Pacific."

The 'sea-air gap' encompasses what has long been defined as Australia's primary 'sphere of primary strategic interests' – the narrow maritime sea-lines-of-communication and air approaches to the north of the Australian landmass throughout south-east Asia that served as the nation's strategic, economic and political links to the broader region, through what would eventually become known as the Indo-Pacific.

Strategic reorientation

As a result of these shifting geo-political and strategic dynamics, Dobb's late-1980s report suggested a number of force structure changes to the newly formed Australian Defence Force that would focus on protecting Australia's northern maritime and air approaches, known as the 'sea-air gap', through a range of force structure and acquisition programs, including: Retaining the F-111 force with a minimum update to maintain service capacity until the mid-1990s, while enhancing the capability of the F/A-18 Hornets to receive information from the JORN network;

Retain the planned acquisition of the Collins Class submarines to replace the ageing Oberon Class vessels with a focus on "retain[ing] the program for six new submarines but establish a financial ceiling and, if necessary later, explore options for lesser capabilities";

Acquire eight light patrol frigates (future-Anzac Class) to enter service from the early-to-mid-1990s, cancel the acquisition of a second fleet replenishment vessel, while cancelling the acquisition of an additional Tobruk Class and the six heavy amphibious landing craft vessels; and

Focus on replacing the Air Force's 22 Caribou and 12 Hercules with a fleet of 20 new Hercules-type aircraft.

Additionally, these reductions saw a massive strategic reorientation focused entirely on the north of the Australian mainland, with a focus on directly monitoring the northern maritime and air approaches to the continent, namely the 'sea-air gap', and included:

Raising three Regional Force Surveillance Units for long-range patrols in northern Australia;

Redeveloping RAAF Base Tindal as an operational fighter base;

Developing three 'bare bases' for the RAAF in northern Queensland and Western Australia to support the rapid domestic deployment of Army units in event of invasion; and

Upgrade and enhancement of the Jindalee Operational Radar Network (JORN) to support the long-range air and sea defence of the 'sea-air gap'.

However, the emergence of economic, political and military superpowers like China and India continues to develop as the economic, political and strategic powers at the core of Indo-Pacific Asia. Additionally, Australia has also witnessed the development of the region's periphery powers including Indonesia, Vietnam and Thailand, each with competing priorities and objectives.

These factors, combined with the rise of both complex asymmetric challenges and the rapid evolution of contemporary weapons systems, including hypersonic weapons systems and multi-domain weapons systems to national security, serve to challenge the established geo-political, economic and strategic security and prosperity of the region – while also effectively serving to reduce the effectiveness of Australia's strategic moat, the 'sea-air gap'.

Responding to a shrinking moat

As the nation embarks on its largest peace time modernisation and recapitalisation of the Australian Defence Force, the 2016 Defence White Paper (DWP) moved quickly to recognise the rapidly evolving nature of the economic, political and strategic status quo of the Indo-Pacific – the DWP correctly identified: "Australia's strategic outlook to 2035 also includes a number of challenges which we need to prepare for. While there is no more than a remote prospect of a military attack by another country on Australian territory in the foreseeable future, our strategic planning is not limited to defending our borders.

"Our planning recognises the regional and global nature of Australia's strategic interests and the different sets of challenges created by the behaviours of countries and non-state actors such as terrorists."

Both of these statements clearly identify a shift in the nation's attitude towards the Indo-Pacific, while also recognising that the nation can no longer depend on buffer zones, or strategic moats like the 'sea-air gap', to serve as the basis for protecting the nation and its interests, particularly as the world and Indo-Pacific continue to integrate.

In particular, the growing capability of China's military, namely advances in long-range strike platforms, have long been identified by Dr Malcolm Davis, senior analyst at the Australian Strategic Policy Institute, as evidence for the nation to embrace a new doctrine of 'Forward Defence in Depth'.

Dr Davis explained, "Given the risk a forward Chinese military presence would pose, Australia needs to consider updating its military strategy to one of 'forward defence in depth' throughout Indo-Pacific Asia, including into the south Pacific. Australia should not maintain a reactive military strategy that continues to rest on foundations established in the mid-1980s when our strategic outlook was far more benign."

On the back of this, Dr Davis identified the core of the 'Forward Defence in Depth' doctrine, with a focus on three strategic defence objectives, namely:

Deter, deny and defeat attacks on or threats to Australia and its national interests, including incursions into its air, sea and northern approaches;

Make effective military contributions to support the security of maritime south-east Asia and support the governments of Papua New Guinea, Timor-Leste and Pacific island countries to build and strengthen their security; and

Contribute military capabilities to global operations that support Australia's interests in a rules-based international order.

"Forward defence in depth would integrate the first objective – essentially the 'defence of Australia' mission – with the second objective by giving the ADF a far more visible and regular role throughout maritime south-east Asia and the south Pacific. In doing so, we'd extend our defence in depth far forward, rather than basing the defence of Australia task on being able to defend a comparatively narrow strategic moat that is the 'sea-air gap'," Dr Davis identified.

"The third objective – more far-flung operations in support of a global rules-based order – should be prioritised to contingencies across the Indo-Pacific region. The objective of forward defence in depth is to expand our regular military presence and meet any threats that emerge much further from Australia's shores."

For Australia, a nation defined by its relationship with traditionally larger, yet economically weaker regional neighbours, the growing economic prosperity of the region and corresponding arms build up, combined with ancient and more recent enmities, competing geo-political, economic and strategic interests, places the nation at the centre of the 21st century's 'great game'.

Australia's security and prosperity are directly influenced by the stability and prosperity of the Indo-Pacific, meaning Australia must be directly engaged as both a benefactor and leader in all matters related to strategic, economic and political security, serving as either a replacement or complementary force to the role played by the US – should the US commitment or capacity be limited.

VOEA Ngahau Koula, the newest ship in His Majesty's Armed Forces - Tonga Navy, arrived at HMAS Stirling shortly after being handed over to the Government of Tonga.

Ngahau Koula means Golden Arrow and is the third of the Guardian Class Patrol Boats, which are being gifted to 12 Pacific nations and Timor-Leste as part of Australia's Pacific Maritime Security Program.

VOEA Ngahau Koula replaces VOA Savea, a Pacific Forum class patrol boat which has been operating since the late 1980s.





Naval Seapower in Miniature

I was born in 1957 in Perth Western Australia and started modelling mainly aircraft interspersed with ships when I was 5. When I was 16, I wanted to build a model of HMAS *Perth* and decided to attack an Airfix 1/600 scale model of HMS *Ajax*. When completed, if you closed both eyes and squinted, it almost looked like HMAS *Perth*. I became a little more adept at remodelling Airfix kits until the day I discovered balsa wood! I started building warships to the 1/600 scale when I was in my early teens and then one day purchased a set of plans for the modified Leander Class cruiser HMAS *Perth* (I) that were drawn to 1/192 scale. This combined with the discovery of balsa wood set me on the path of accurate scale model scratch building that has seen me build well over 100 ships during my career as a ship modeller. I have always kept to the same scale which has had its good and bad points. The scale is large enough to provide the opportunity for detail but small enough that I don't have to house them in a huge shed. If building a ship from a class of ships, I will (where applicable) try and choose one that sank, this being my way of paying tribute to those who went down with the ship. Unfortunately, this can be quite challenging, as there is usually a dearth of photographs that I can use as a reference. I use photos as much as I can, as I have found over the years

that many plans are drawn incorrectly and this is usually only discovered when you are half way through the build.

My passion is mainly for British and Australian warships, but I also enjoy building ships that take my fancy, for example, I have a Roman bireme, RMS *Queen Mary*, Raleigh's ship the *Revenge* and the two Dutch cruisers *De Ruyter* and *Java* involved in the Battle of the Java Sea. The largest ship in my collection is the RMS *Queen Mary*, with the smallest being HMAS *Acute*. I also have HMS *Victoria*, a pre-dreadnought, HMS *Fife*, a County class destroyer, *Kinabalu*, a coastal trader from Borneo, HMAS *Sydney* (III), the aircraft carrier HMS *Eagle*, HMS *Monmouth* sunk in WWI to name but a few. My most challenging model has been that of the wreck of HMAS *Sydney* (II) depicted on 20th November 1941 a few days after she sank. Building this model and seeing the utter destruction of the ship made me realise how much punishment she received and how heroic the crew must have been to almost get the battered wreck home to Fremantle. I would also like to thank my long-suffering wife, Jill, for putting up with the loss of more and more wall space. Whenever I finish another model, she looks at it, smiles, makes some nice comment about the model and asks "Where is that one going to go?", although sometimes she doesn't ask, but gives me that look.

Gerry Westenberg

28 June - 1 July 2019

WA Shipwrecks Museum



45 Cliff Street, Fremantle WA 6160 Ph: 1300 134 081

H.M.A.S. PERTH (I) Memorial

His Majesty's Australian Ship *Perth* was commissioned into the Royal Australian Navy on 29 June 1939 and served with distinction during the early years of the Second World War. The Modified *Leander* Class light cruiser was sunk on 1 March 1942 while fighting numerically superior Japanese naval forces at Sunda Strait. At the time of her loss, *Perth* carried a complement of 681 officers, ratings and civilian canteen staff. 353 were killed in action or perished as a result of the ship's sinking, and four died after reaching shore. Of the 324 who became prisoners of war of the Japanese, 106 died. 218 survived to return home.

The need to commemorate *Perth* and her gallant ship's company was first recognised by the City of Perth during the Second World War. On 12 August 1943 a plaque, 'Dedicated in grateful remembrance to the officers and men of HMAS PERTH', was unveiled at the Perth Town Hall. On 26 February 1950 the City of Fremantle Sub Section of the Naval Association of Australia instituted an annual memorial service for *Perth*. It is held at St. John's Church, Fremantle, on the last Sunday in February.

In 1964, a desire to further commemorate *Perth*, coupled with the need to establish a permanent headquarters for the Navy League of Australia, Western Australian Division, led to a proposal to erect a memorial hall on the



banks of the Swan River at East Fremantle. The HMAS *Perth* Memorial Hall was officially opened on 26 February 1967 - in time for the 25th anniversary of the Battle of Sunda Strait. The ship's Coat of Arms, which had been presented to the Perth City Council for safekeeping during the war, featured on a wall dedicated to the memory of *Perth* and the ship's company. As was intended, the hall accommodated the WA Navy League and the Australian Sea Cadet Corps headquarters, as well as the Sea Cadet unit TS (Training Ship) *Perth*.

In February 1992, to mark the 50th anniversary of the Battle of Sunda Strait, a reunion of survivors was held in Perth. Sixty *Perth* men from around Australia and New Zealand, and ten *Houston* men from the United States attended. By 1 March 2017 - the 75th anniversary of the battle - the number of *Perth* survivors had dwindled to two. This led to public discussion about a memorial to HMAS *Perth* and the ship's company.

A working group was formed in 2018 to establish a permanent memorial to commemorate the life and loss of HMAS *Perth*. The memorial will be dedicated to the members of the ship's company who:

- 1) Perished in the Battle of Sunda Strait
- 2) Survived the battle and attempted to avoid capture
- 3) Were captured, imprisoned and enslaved
- 4) Died as prisoners of war
- 5) Finally returned to Australia or the United Kingdom

The memorial will also acknowledge the families whose lives were forever changed by the loss of HMAS *Perth* on 1 March 1942.

The HMAS *Perth* (I) Memorial working group proposes to create a memorial that will complement and enhance the existing HMAS *Perth* Memorial Hall and the TS *Perth* training establishment (collectively known as the HMAS *Perth* Memorial Facility) located on Riverside Road, East Fremantle, in Western Australia.

Joining the League

To become a Member of The League, you do not need to have had any previous maritime experience. You merely need an interest in maritime affairs. Simply complete the Application Form below, and post it, together with your first annual subscription of \$35.00 (which includes the four quarterly editions of The Navy), to the Hon Secretary of the Division of the Navy League in the State in which you reside, the address of which are as follows:

New South Wales Division: GPO Box 1719, Sydney, NSW 2001.

Victoria Division: PO Box 2340, Mt Waverley, Vic 3149.

Queensland Division: PO Box 2495, Chermside Centre, QLD 4032.

South Australia Division: PO Box 3008, Unley, SA 5061.

Western Australia Division: 11 Georgetown Drive, Malibu WA 6169.

If you live in Tasmania, please post the form to the Hon Secretary of the Victoria Division.

If you live in the Australian Capital Territory or the Northern Territory, please post the form to the Hon Secretary of the New South Wales or South Australia Division respectively.

Subscriptions are due on 1 July in each year, and your membership will be current to 30 June immediately following the date on which you join the League, except that if your first subscription is received during the period 1 April to 30 June in any year, your initial membership will be extended to 30 June in the following year.

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I wish to join the Navy League of Australia, the objectives of which I support, and I enclose a remittance for \$35.00 (including \$3.18 GST) being my first annual subscription to 30 June next.

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