

#### NAVY LEAGUE OF AUSTRALIA WESTERN AUSTRALIA DIVISION

NOVEMBER 2019 Volume 3, Issue 11

# DOWN THE VOICEPIPE



SOBROAN



#### HMAS Adelaide, HMAS Success, HMAS Ballarat

do you hear there!

#### **COMING UP**

- Executive meeting will be held 02nd. December2 019 at 1700
- HMAS Perth (I) Memorial Foundation
  Meeting to be held TO BE NOTIFIED
- HMAS PERTH (I) Memorial Service Sunday 01 March 2020 St John's Church Fremantle at 1130.
- Public launch of HMAS Perth (I) Foundation Nedlands Yacht Club 16th. February 2020.
- Hec Waller Memorial Race Nedlands Yacht Club 16th. February 2020.

#### ALL ARTICLES PUBLISHED IN THIS NEWSLETTER ARE PRINTED IN GOOD FAITH AND DON'T NECESSARY REFLECT THE VIEWS OF THE NAVY LEAGUE OF AUSTRALIA

HMAS PERTH (I) MEMORIAL





#### **DIVISIONAL NEWS**

Hi everyone and welcome to this month's edition. The month has been very busy with your executive negotiating a new lease for defence to use the HMAS Perth (I) Facility for the use of Australian Navy

Cadets, in particular TS Perth. The new lease with defence will be signed off in the next two weeks after lengthy discussion on the suitability of the lease to Navy League, a very good outcome has now been achieved. League members recently attended the Maritime day in the Port of Fremantle promoting the league and The HMAS Perth (1) Memorial. Also,

Two members attended the remembrance day service in Fremantle and two attended the service in Northam. To save costs as postage is now quite expensive Christmas Cards will be sent out via email to members. Our Sundowner will be held again early in the new year date will be programmed shortly hopefully as many members as possible can attend which in the past has been very well attended.

The Federal AGM / Conference was held in Canberra late October and was attended by all state divisions and our two delegates were Trevor Vincent and myself. This year CN made available two Senior Officers for briefs and a NSW member gave an insight on nuclear propulsion for submarines. Your delegates gave a number of presentations which included the future of The Navy League, An oversight on the work being carried out at HMAS Stirling, and the Latest brief of the HMAS Perth (I) Memorial project.

The RAN unit to win the 2019 Community NL Award was HMAS Cairns.

On Sunday morning we were able to have a lengthy discussion with Director General or Reserves and Cadets. The subject being the operation of the ANC under the current policies. The NLWA Executive recommended that Mason Hayman a long standing member of the league and your executive as a past President be awarded lifetime membership.









Top Chez Wilson Right Jim O'Neill





#### HMAS PERTH (I) MEMORIAL FOUNDATION INC

The Public launch of the HMAS Perth (I) Memorial project will be on the 16th. February 2020 at the Nedlands Yacht Club during the Hec Waller Memorial Race.

Foundation members recently attended the Maritime Day at the Port of Fremantle and gather interest for the Project. Big thankyou must go to the members who engaged in the processes during this day.

The artefact that we have from HMAS Perth (I) in the form of a port hole from the wreck was recently refurbished by the late Norm O'Neill who carried out much need restoration and protection work to ensure it remains on public show for many more years. Once this was completed a new plinth with protected cover was purchased for the continued display.

A meeting was held with the Sculptors/artists Joan and Charlie Smith, Andrew Malone Executive Manager Regulatory Services East Fremantle Town Council, Nathan Colgan and Lukas Bosak from Colgan Industries to go over the finer details of the project before the final drawings are submitted to council for approval. In the meantime our chairperson has had an audience with the Governor to include him in his role as patron in the stages of the project.





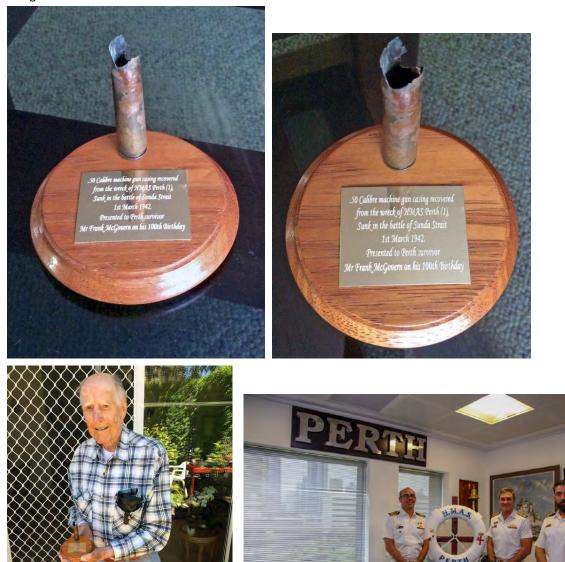




I thought you might be interested in a souvenir we presented to Frank MacGovern.

Captain Matthew Brown - Naval Attache to Jakarta gave the shell to Frank and I dressed it up. Frank said he was firing a .50 machine gun at the Japs on the night the HMAS Perth1 went down. It would have to be a million to one chance Frank actually fired that shell. Who knows??

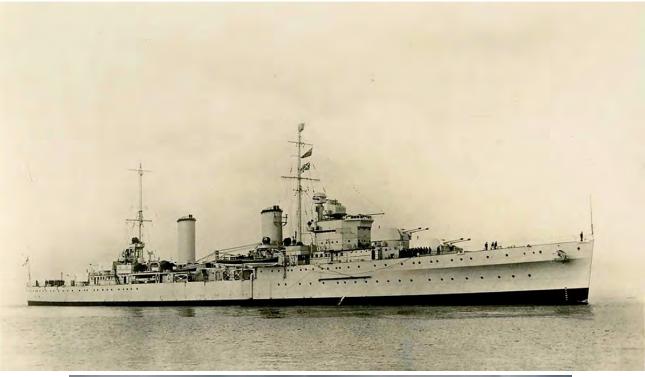
Cheers, George.



#OnThisDay in 1941 HMAS Sydney (II) clashed with the German ship Kormoran resulting in the tragic loss of both vessels.

Discover the story: https://www.sea.museum/2016/11/18/into-the-abyss

P: ANMM Collection 00013943







Defence expenditure and capability has been sufficient up until now



| 15 November 2019 | Stephen Kuper

Australia's defence expenditure has long set it apart from its regional neighbours, guaranteeing a technological advantage, backed by the strategic deterrence of larger powers – not only is that changing as the region evolves, but if the nation found itself in a different part of the world, its expenditure and capability would already be significantly greater.

With Australia edging ever closer to the elusive 2 per cent of GDP on defence expenditure amid the largest peacetime rearmament program in the nation's history, much concern has been placed on the nation's capacity to finance the next-generation capabilities and often costly, complex and delayed mega projects over the long term. The nation's comparative wealth when measured against that of its Indo-Pacific neighbours has long supported a technological and platform advantage over potential adversaries, maintaining a tactical and strategic advantage. Meanwhile, the lack of true peer or near-peer threat to Australia since the end of the Second World War prompted the nation to respond accordingly, whittling away at the nation's capabilities and funding to leave the Australian Defence Force as little more than a regional constabulary force that struggled to quickly respond to the East Timor crisis or to adequately respond to the presence of a great power's strategic coercion during the 2014 G20 summit. An important question needs to be answered when considering the future make up of the nation's defence expenditure and capability as we prepare for the next Defence White Paper and Force Posture Review, which will seek to identify, outline and structure the nation's defence posture at a period of increased great power competition. That key question is: If Australia was in a different part of the world, wouldn't we already be spending more on defence, with a significantly more capable defence posture?

It is critical to ask this question as public debate continues to grow and calls for a 'reset' of the nation's defence posture and capability gain traction – particularly as the Australian public will need to act as an informed partner on the road ahead.

The Indo-Pacific is Europe circa 1914 or 1938

Across the Indo-Pacific, competing economic, political and strategic interests, designs and ambitions are beginning to clash – driven by an unprecedented economic transformation, propelling once developing nations onto the world stage; the region, the globe and its established powers are having to adjust to a dramatically different global power paradigm.

From the South China Sea to the increasing hostilities between India, Pakistan and China in the Kashmir region of the Himalayas, the Indo-Pacific's changing paradigm, combined with the growing economic, political and strategic competition between the US and China.

The continued sabre rattling and challenges to regional and global energy supplies travelling via the Persian Gulf and an increasingly resurgent Russia all serve to challenge the global and regional order.

This period of increasing traditional state-based competition is rapidly serving to combine in the shape of the perfect powder keg as nations like Australia, the US and traditional western European allies fail to truly understand, or in some cases comprehend, the ancient enmities that characterise and define the relationships throughout the region. Dr Malcolm Davis, senior analyst at the Australian Strategic Policy Institute, expanded on this new reality Australia finds itself in, telling Defence Connect, "We must assume that we are going into a more dangerous and contested future that will have a higher operational tempo than in the past, with dramatically reduced warning times – and I think Dibb is correct – we are in 'strategic warning'. I'd go so far as to say it's possibly a 'pre-war period'."



This was further expanded upon by Dr Andrew Davies, who has long called for Australia to recognise the limitations of US power and its influence on the nation's long-term defence and strategic postures: "The assumption of continued US primacy that permeated DWP 2016 looked heroic at the time. It seems almost foolishly misplaced now."

Australia has long sought to balance the paradigms of strategic independence and strategic dependence – dependent on strategic relationships with global great powers, beginning with the British Empire and now the US – and a rising economic dependence on the developing nations of the Indo-Pacific who are now emerging as some of the world's largest economic, political and strategic powers.

Former South Australian governor and retired Rear Admiral Kevin Scarce recently hit out at the status quo during a speech in Adelaide, describing the whirlpool of geopolitical, strategic and economic competition: "These issues are fast-moving and complex ... Yet, our leaders both political and military seem outwardly reluctant to engage in fulsome public debate."

Scarce is clear in articulating his concerns about the rising global and regional powerhouse, China, believing that while it does not pose a territorial threat to Australia, its growing influence, ambitions and increasing assertiveness, which can be expanded to coercion, are key factors that need to be included in the nation's broader public debate and policy calculations. 2 per cent in an era of great power competition

China's rise is but part of the new regional and global paradigm Australia finds itself increasingly dependent upon – the relative instability of the US, the cornerstone of the post-Second World War economic, political and strategic order, leads to troubling results for Australia.

"It will simply not be sufficient to assume that US diplomatic and military strength will always come to our aid," Scarce said – this echoes growing concern about both the capacity and the intention of the US to serve as the strategic linchpin for the Indo-Pacific.

Andrew Davies of ASPI highlighted the importance of recognising the limitation of US power in a recent piece, saying, "The assumption of continued US primacy that permeated DWP 2016 looked heroic at the time. It seems almost foolishly misplaced now."

This is reinforced by executive director of ASPI, Peter Jennings, posing the critical question in late 2018: "What's the plan for Australia's defence if it turns out that Trump's America First approach is here to stay and alliances fall into mistrustful neglect?"

It is becoming abundantly clear that Australia's dogmatic insistence of sticking to the sacred 2 per cent of GDP expenditure on the nation's defence is rapidly becoming woefully insufficient, particularly in a period of increased great power competition. Standing up capability now before it's needed

Nevertheless, many within the political, strategic and public policy communities continue to dally around the edges of the debate, largely referring any meaningful conversation, debate or broader discussion to the same basket they forward all challenges Australia faces: the too hard basket.

It is time for Australia's policy leaders and public to be reminded that developing Defence capability, particularly in the era of high technology, cannot be done overnight, particularly in the event of conflict with a peer or near-peer competitor – standing up capability now, before it is needed, is far cheaper and safer then being backed into a corner.

By way of reference, Australia at the end of the Second World War had a population of approximately 7.5 million and yet was able to contribute 724,000 Army personnel, 400,000 of which served outside of Australia, 39,650 Naval personnel serving on nearly 350 vessels, including 150 major surface and submarine combatants – supported by nearly 200 auxiliary craft – and nearly 152,000 Air Force personnel operating nearly 6,000 aircraft (then the fourth-largest air force in the world).

It is clear that Australia doesn't have a money or a population issue, we have a political will issue, one that distinguished commentators like Scarce, Peter Jennings and Dr Davis have some way sought to bring to the public forum. Your thoughts

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 a complementary force to the role played by the US.

Australia cannot simply rely on the US, or Japan, or the UK, or France to guarantee the economic, political and strategic interests of the nation. China is already actively undermining the regional order through its provocative actions in the South China Sea and its rapid military build-up.

To assume that Australia will remain immune to any hostilities that break out in the region is naive at best and criminally negligent at worst. As a nation, Australia cannot turn a blind eye to its own geopolitical, economic and strategic backyard, both at a traditional and asymmetric level, lest we see a repeat of Imperial Japan or the Iranian Revolution arrive on our doorstep.



Please explain: SEA 1000 costs and delivery time balloon again



Maritime and Undersea Warfare | 02 December 2019 | Stephen Kuper

The latest round of Senate estimates hearings has revealed a startling cost explosion for Australia's Attack Class future submarines, raising questions about affordability and a potential capability gap leaving the nation exposed at a time when half of the world's combat submarines are expected to be operating in the Indo-Pacific.

It is the largest defence acquisition project in the history of the nation, but the apparently \$50 billion project to replace the ageing Collins Class submarines with 12 regionally-superior submarines is in deep water as growing concerns about cost, capability and delivery time frame are again making headlines following a fiery exchange at Senate estimates. Future Submarine Program manager, Rear Admiral Greg Sammut, explained to the Senate estimates hearing that the 'outturned' cost of Australia's future fleet of submarines was estimated to be around \$80 billion – a figure frequently cited but subsequently rubbished by former defence minister Christopher Pyne and other Defence officials.

Further compounding the costs associated with the acquisition is the continuing concerns about the capability of the proposed vessels with many expressing, often vocally, concerns about the obsolescence of lead-acid batteries and the conventional power plant expected to power the vessels out to the 2080s.

When then prime minister Malcolm Turnbull announced the DCNS, now Naval Group, conventionally-powered Shortfin Barracuda, now the Attack Class, as the successful design for the hotly contested SEA 1000 Future Submarine program in April 2016, it seemed as if the disastrous procurement of the Collins Class would be put aside.

The Attack Class is expected to deliver a quantum leap in the capability delivered to the Royal Australian Navy and its submarine service by leveraging technology and capabilities developed for nuclear submarines, implemented on a conventional submarine.

France's own projected fleet of Barracuda Class serve as the basis for Australia's own Attack Class with one major difference, nuclear propulsion.

However, with the first vessel expected to enter the water in the mid-to-late 2030s, concerns regarding the cost, delivery and capability of the vessels is serving to raise questions about the value proposition for a conventional submarine at a time of increasing technological advancement in comparable vessels operated by peer and near-peer competitors in the Indo-Pacific.

Another bump in the road – cost increases and delayed construction

As part of the Senate estimates hearing, RADM Sammut revealed that the total cost for the turned out vessels was now estimated to be \$145 billion, bringing the total SEA 1000 program cost to around \$225 billion by the time of the vessel's planned retirement sometime in the 2080s.

"It is only an estimate of the sustainment of the fleet, we are designing the sub today," RADM Sammut explained. This cost explosion is further exacerbated by an apparent 'slip' in the planned commencement date for construction of the lead boat, HMAS Attack, which was widely publicised as 2022-23 and has now subsequently been pushed back to the 2024 time frame – further exposing Australia's ageing Collins Class vessels to potential adversary over match.

RADM Sammut was quick to explain this away, like a skilled operator, informing Senate estimates that the slated time frame was referencing the standing up of construction personnel, tools, infrastructure, processes and equipment to commence the construction of HMAS Attack's pressure hull in 2024.

These bombshells come following a revelation earlier in the year that the cancellation fees associated with the SEA 1000 program amounted to \$404 million – which seems like a steal when measured against the ballooning costs associated with the program.

Plug and play construction, allied collaboration and the future of Australia's submarine force To contrast the costs associated with Australia's future Attack Class submarines of between \$4.2 and \$6 billion per unit (including infrastructure development, research and development costs) – compared with the unit cost of the French Barracuda's of approximately US\$1.4 billion (\$2 billion) per unit (based on 2013 prices raises questions about the validity and cost-benefit analysis conducted on doubling down with early-20th century technology). Contemporary submarine construction, like contemporary naval and civilian shipbuilding, is done predominantly in a modular, 'block build' fashion enabling an easier integration for technology development and enhancements throughout the build phase – what this means is a stark difference between the broader capabilities and technology in vessels over the life of the build phase.

The long lead-time prior to the commencement of the construction process provides a number of additional opportunities, particularly for Australia's Attack Class submarines – in particular to avoid the costly redesign and conversion phase, purchase the standard Barracuda Class design and make the necessary modifications to incorporate the US-designed weapons systems and combat systems without reinventing the wheel.

Doing so builds on the technological and industrial lessons learned by Naval Group throughout the same process getting Suffren to the launch stage – it wouldn't serve to hinder the build process for Australian industry and would serve to reduce risk for Australia.

Additionally, it would provide the opportunity for Australian industry to bring the phase forward by using Australian workers to build the full submarines while drawing on French nuclear propulsion expertise to serve as "technology insert" experts to install the nuclear reactors for the Australian submarines.

The long lead-time for this development would also provide an opportunity for Australia to embed both civilian and military nuclear experts and submariners in the nuclear industries and nuclear-powered submarine fleets of key allies including France, the US and UK to develop the expertise and skills required to safely, efficiently and effectively operate nuclear-powered submarines.

This stubborn insistance to consistently reinventing the wheel and calling it progress will serve to challenge the long-term capability of both Australia's submarine fleet while also cementing a 20th century focused industrial capacity.

However, it doesn't have to be this way, as Australia's recently initiated design clarification process, long leadtime for construction and combined with international partnerships provide the opportunity to reset the paradigm.

Questions to be asked

As an island nation, Australia is defined by its relationship and access to the ocean, with strategic sea-lines-ofcommunication support 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 South China Sea and the strategic waterways and choke points of south-east Asia annually. While the Indian Ocean and its critical global sea-lines-of-communication are responsible for more than 80 per cent of the world's seaborne trade in critical energy supplies, namely oil and natural gas, which serve as the lifeblood of any advanced economy.

Submarines are critical to the nation's ability to protect these strategically vital waterways and key naval assets, as well as providing a viable tactical and strategic deterrent and ensure the nation's enduring national and economic security – recognising this, the previously posed questions will serve as conversation starting points.

However, given the geographic area of responsibility Australia will become increasingly responsible for and dependent on, is the RAN and the recapitalisation and conventionally-focused modernisation program for Australia's submarine fleet enough for Australia to maintain its qualitative and quantitative lead over regional peers? Traditionally, Australia has focused on a platform-for-platform acquisition program – focused on replacing, modernising or upgrading key capabilities on a like-for-like basis without a guiding policy, doctrine or strategy, limiting the overall effectiveness, survivability and capability of the RAN. WA government seeks to 'clear the record' over university report claims



Maritime and Undersea Warfare | 29 November 2019 | Louis Dillon

The Office of Paul Papalia, West Australian Minister for Defence Issues, has released a document to the media that aims to "refute the incorrect claims made by the Flinders report", which called for Collins Class sustainment to remain in South Australia.

Last week, a review by the Australian Industrial Transformation Institute of Flinders University, commissioned by the South Australian government, highlighted reasons for the role to remain in SA.

The report noted the significant cost, estimated at nearly \$650 million, that would be required to "build the appropriate infrastructure in Western Australia and ensure sufficient skilled workers are available in both states during a potential move".

The review also claimed that "strong growth in the state's mining and construction sectors" would intensify the competition for suitably skilled personnel, suggesting that Western Australia would struggle to recruit and retain enough security cleared engineers and tradespeople for the full-cycle docking sustainment.

"ASC (2019) has indicated that shifting sustainment activities from South Australia to Western Australia would initially require the recruitment, training and certification of an additional 500 employees," the report read.

"However, this number will only increase the Western Australian maintenance sustainment workforce to 900 employees, sufficient to deliver the FCD, but insufficient to also deliver the MCD, unscheduled docking (USD) and other sustainment activities required concurrently.

"To deliver all maintenance and sustainment requirements, Western Australia would require a total of 1,300 employees (ACIL Allen Consulting, 2019; ASC, 2019). Nine hundred of this workforce would need to be upskilled and retrained in Western Australia, be seconded, fly-in fly-out (FIFO) or move from South Australia in order to deliver the work associated with FCD, which is considerably more technically complex than the current program of work delivered in Western Australia."

The report also said that over \$250 million would be required in duplicate wages if the job was moved. However, Western Australia have now released a "clear the record" document, which is outlined below. National interest is not served by full-cycle docking sustainment moving Western Australia says:

"Moving FCD to WA is in the national interest because it will reduce the pressure on a stretched SA workforce and protect the Attack, Hunter and CCSM programs from potential failure and cost blowouts.

"The Flinders document ignores that co-location of sustainment of submarines near operations is in line with international best practice. This provides an important human element, as submariners will spend less time away from home and more time with their families. This could assist in retaining the current Navy workforce and make a career in the Navy more attractive for future generations. This is critical when you consider Navy is doubling its submarine fleet." There are plentiful supply chain issues

Western Australia says:

"CCSM supply chains already stretch across Australia.

10

"Australian industry is more sophisticated than Flinders proposes and capable enough to meet Defence's supply chain needs. Given that Defence is looking at regional sustainment options for its other sustainment projects, Defence already recognises industry's potential."

If Collins sustainment is moved to WA, a significant proportion of SA workers would need to move or conduct FIFO work Western Australia says:

"This is not true. WA will train a workforce, as it has done before for deep sea oil and gas work. SA workers are needed to meet the workforce requirements for the Attack and Hunter programs."

There will be competition for skills from the mining sector

Western Australia says:

"The state's overall mining investment levels over future years are expected to be very similar to the state's pre-resource boom levels (particularly in the case of iron ore and oil/LNG projects). This has previously been outlined by WA Treasury. Future mining industry activity will not be a risk in growing the FCD workforce. By comparison, there are already concerns in the defence industry about wage blowouts in South Australia due to the limited number of workers.

"The document has numerous errors on wages and relies on outdated data. Since the 2016 Census (relied on by Flinders), the SA wage price index has outpaced WA every quarter for three years and counting.

"The use of construction data and examples for workforce demand is flawed. There are significant differences in qualifications required for railway engineering (for METRONET) compared to maritime defence – which is why the WA South Metropolitan TAFE provides tailored courses for maritime workers.

"Even during the mining boom, South Metropolitan TAFE – the state's leading defence industry training provider, was able to respond to the ramp up of workforce needs by the oil and gas sector by training 4,500 workers in around 4-5 years. This was done through industry collaboration to develop training products for new workers, and retrain and upskill existing workers. FCD will require a much smaller direct workforce making it even easier to assemble in WA."

There are significant costs associated with moving the sustainment responsibility

Western Australia says:

"The Flinders document fails to account for the costs associated with retaining FCD in SA, incorrectly calculates costs of transition and does not identify the savings from relocating FCD.

"If FCD is retained in SA, the work required to expand and redesign the Osborne Naval Shipyard would be substantial. It could also result in delays in the Attack program due to key assumptions having been made about the use of the existing FCD site.

"The costs of moving have been heavily inflated and are false. Flinders:

overly inflates the construction costs for the Commonwealth by double counting the wages of workers already capitalised in initial estimates;

heavily overestimates personnel and training costs by assuming almost the entirety of the existing SA workforce is required for transition to WA over many years. This is false. WA will train a skilled workforce locally; and

incorrectly assumes a cost of site purchase for an expanded ASC facility at Henderson. The land is already WA government owned. Other infrastructure required beyond the ASC site would be met by the WA government as outlined publicly. "Moving FCD will save the Commonwealth money:

The Osborne Naval Shipyard won't need to be expanded or redesigned. The current plans for the Attack Class submarine construction yard won't need to be changed which will save time and money;

The WA government will meet the costs of upgrading the Common User Facility and associated infrastructure (as mentioned above); and

If a PPP were used, the cost of moving FCD to WA could be very low and possibly at zero capital cost to the Common-wealth."

South Australia will not encounter workforce issues

Western Australia says:

"The document identifies that SA will heavily rely on overseas migration while acknowledging the issue of security clearance for those same migrants. WA has a local workforce already available, with additional Australian workers available to train. This would also minimise security concerns.

"In its latest Senate estimates hearing, ASC confirmed it is already losing its SA workforce to other local defence companies. Moving FCD to WA means workers in SA who worked on the CCSM program can transfer to the Attack and Hunter Class programs – anyone who wants a job in shipbuilding in SA will have one. Moving FCD to WA will reduce the poaching of ASC workers who are needed for CCSM sustainment."

WA workforce planning is not near completion

Western Australia says:

"The workforce planning for maritime workers is in an advanced stage. The plan will be released after an FCD decision by the federal government."

It would be prudent to strengthen the existing division of sustainment responsibilities between Osborne and Henderson

Western Australia says:

"This ignores the position made in the Naval Shipbuilding Plan, which identified Osborne and Henderson as shipbuilding hubs.

"Co-locating sustainment of submarines near operations is in line with international best practice (as already undertaken in the United States and France). It will serve the national interest, de-risk the Attack, Hunter and Collins programs and is the best value for money decision both now and in the long term. This was identified by the independent PWC report released in August 2019."

South Australia's opposition government doubles down

Following the report's release, South Australia's Labor Party also launched a formal submission to Defence SA to keep the submarine maintenance role in the state.

SA Labor leader Peter Malinauskas launched the submission with ASC submarine maintenance workers as they visited Parliament to press their case to keep their roles.

"The submission rejects Western Australia's core claim – that South Australia cannot provide an adequate workforce to build the Attack Class and maintain the Collins Class – citing the fact a bigger workforce was required in 2014 when SA was building the Air Warfare Destroyers, sustaining the Collins Class and Holden was still operating," the submission from SA Labor reads.

"The submission also cites risks to the national interest if the sustainment is shifted to WA, including risks of delays and cost over-runs. There is also evidence the Collins Class sustainment is of almost equal value to South Australia as the construction of the new Attack Class."

"Western Australia is running a well-funded, high profile public campaign to steal our jobs, while Steven Marshall is sitting back and hoping," Malinauskas said.

"We must do everything we can to make the case to keep these jobs here and this submission is one element of that.

"Western Australia's case simply does not compete with South Australia's four-decade history of excellence in submarine construction and sustainment.

"The evidence is overwhelming – keeping these jobs in SA isn't just in South Australia's interest, it's also in the national interest."

### Larboard and starboard

Larboard and starboard were the sailing terms used to describe left and right, respectively. In the early days, ships were controlled by a steering oar. Because most sailors were right handed, the steering oar was placed ov



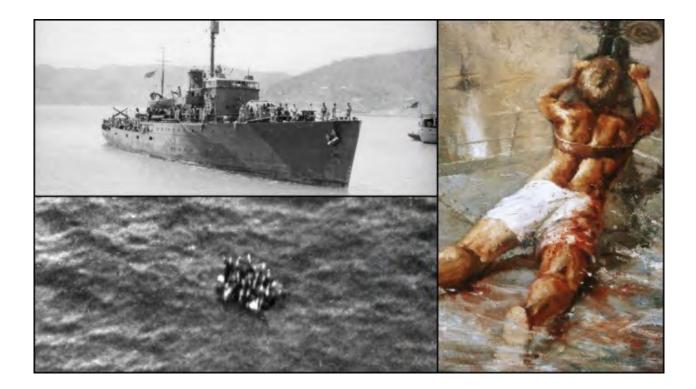
sailors were right handed, the steering oar was placed over the right side of the stern, so the right side became known as 'starboard' by combining two Old English words: stéor (meaning 'steer') and bord (meaning 'the side of a boat').

Originally taken from the Old English 'ladebord', larboard referred to the side of the ship on which cargo was loaded. However, shouted over



the noise of the wind and the waves, larboard and starboard sounded too similar - confusing the two could lead to a shipwreck!

The word larboard was replaced by the word 'port' by the Royal Navy in 1844, and has been universally adopted.



#OnThisDay in 1942 HMAS Armidale was sunk by a force of Japanese bombers near Timor.

Despite being badly wounded, Ordinary Seaman Edward "Teddy" Sheean refused to abandon ship and manned his anti-aircraft gun as the Armidale sank. He shot down two Japanese aircraft as they strafed sailors in the water. Survivors believed he saved many lives by forcing the attacking Japanese away from the sinking ship. Crewmates recall seeing bullets rising from beneath the surface as Sheean was dragged under, indicating that he kept firing until the end.

The Collins class submarine HMAS Sheean was named in his honour in 1999, with the motto "Fight on".

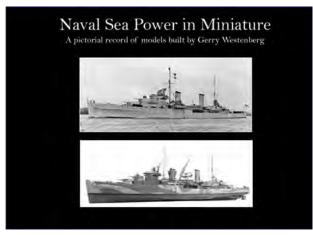
Of the 149 people aboard HMAS Armidale, only 49 survived.

To read more visit: https://www.awm.gov.au/visit/exhibitions/cruelsea/background.

Image (clockwise from top left): HMAS Armidale [026612]; Dale Marsh's painting Ordinary Seaman Edward Sheean, HMAS Armidale [ART28160]; survivors of the ship's sinking cling to a raft, never to be seen again [300191].

### Naval Power in Miniature.

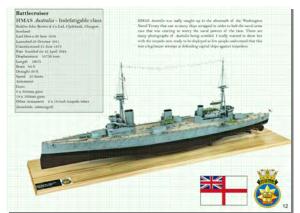
"Naval Power in Miniature" is a pictorial record of the models built by Gerry Westernberg. The book is A4 in size, has 100 pages and features 85 models in full colour, each with the original ship's specifications and model builder's notes. The selection of craft includes ships of the RAN, RN, USN, HNLMS (Dutch Navy) and Kriegsmarine Marine. All the models were scratch built to the scale of 1:192 (or one inch to sixteen feet) and are highly detailed. They are the product of 42 years of expert craftsmanship and then photographed in high resolution to capture every detail. This is a truly unique collection of naval craft from a master model maker and a must have for anyone interested in the navy.

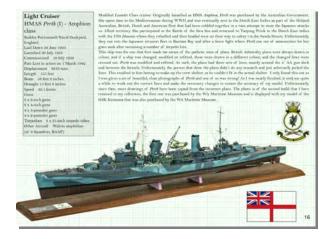


The cover showing a photograph the HMAS Perth and Gerry's model below.

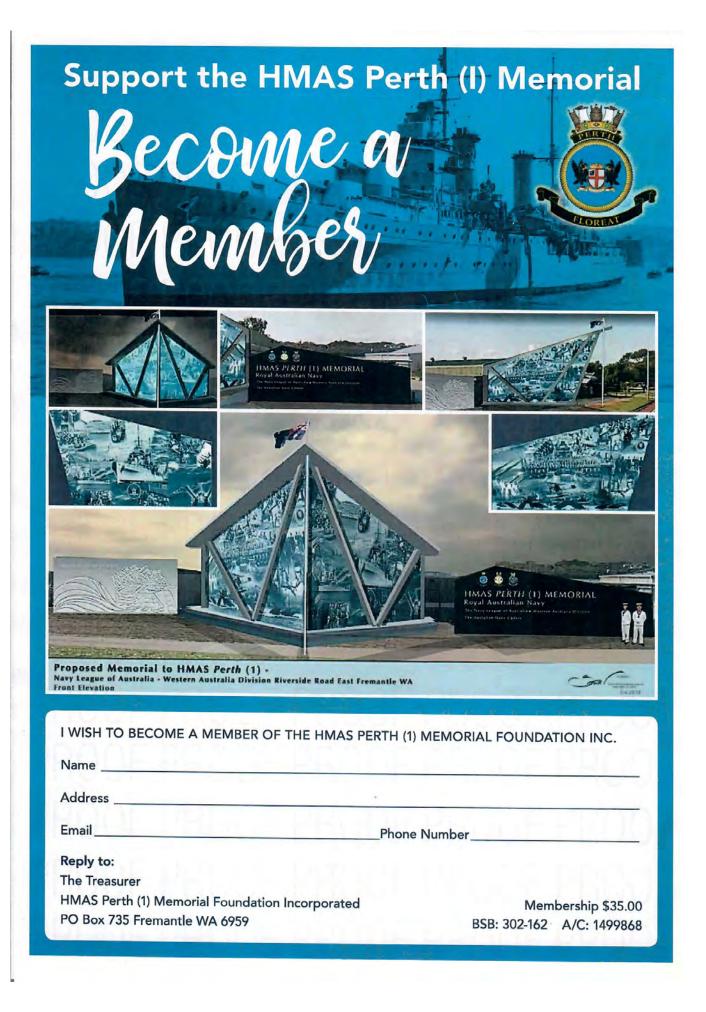
## \$39.95

- Plus Postage
- Ordering please email to
- bandjoneill.1@bigpond.com





Example pages showing the model, specifications, builder's notes and ships crest.



### 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:

<b>New South Wales Division:</b>
Victoria Division:
Queensland Division:
South Australia Division:
Western Australia Division:

GPO Box 1719, Sydney, NSW 2001. PO Box 2340, Mt Waverley, Vic 3149. PO Box 2495, Chermside Centre, QLD 4032. PO Box 3008, Unley, SA 5061. 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.

THE NAVY LEA APPLICATION FOR	GUE OF AUSTRALIA MEMBERSHIP	Sur Length	
To: The Hon. Secre The Navy League of	-	AUSTRALIA	
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.			
• Name: [ Mr ] [ Mrs ] [ Ms ] [ Rank ]			
PLEASE PRINT CLEARLY			
Street			
Suburb	State	P/code	
Phone Mobile			
Email			
Signature		Date	
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.			



#### PRODUCED BY THE NAVY LEAGUE OF AUSTRALIA WESTERN AUSTRALIA DIVISION

Hon Secretary CMDR Jim O'Neill ANC RTD PO Box 735 Fremantle WA 6160 Bandjoneill.1@bigpond.com



Catch us on Facebook Navy League of Australia Western Australia Division