



AN ARMY SOLUTION TO A NAVY PROBLEM

THE BATTLE OF SALAMIS 480 B.C.

CAUGHT BETWEEN GIANTS

GLOBALISATION IS TO THE MARITIME AS OCEANS ARE TO THE WORLD

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Front cover:

HMAS CANBERRA Departs Fremantle 2019 – Image POIS Whittle.
HMAS CHOULES 2013 – Image Leading Seaman Paul McCallum.
HMAS ADELAIDE On Amphibious Exercise 2024 – Image CAPT Annie Richardson

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A Classical Edition?

The final edition of *The NAVY* in 2024, has a classical theme running through it. Be it the paper by Paul Morrison on the Battle of Salamis. or the newly elected interim Federal President, Mark Schweikert's paper presenting an Army solution to a Navy problem? Something the ancient Greeks and Romans fully understood. Or Ascanius Alba's prescient paper Caught Between Giants examining Australia's missteps amid American uncertainty and China's ambitions. Ascanius Alba [Longa], I presume, alluding to the grandson of the goddess Venus and Trojan prince Anchises. Under his additional (Roman name) Lulus, being progenitor of the first line of Roman emperors: the Julio-Claudian dynasty. The third paper is by returning author Dr Simon Reay Atkinson, who considers Globalisation is to the Maritime, as Oceans are to the World – based on an examination of Global GDP that, in its entirety, goes back to antiquity. The Latin translation "Globalizatio est ad Mares, ut Oceana est ad Orbi" relating, in part, to the Vatican's catch phrase "ex urbi ad orbi" (from city to the world). Which, as Professor Roy MacLeod OAM (University of Sydney, NLA NSW DIV) comments "made trade in people, goods, and ideas an article of faith."

As a critique, Mark Schweikert may be overly kind to the authors of the *Defence Strategic Review* in their collective failure to assure that fine statements on amphibious capability in the DSR and previously [1, 2] were not followed through by funding and assertion in the *Surface Fleet Review* (SFR).

DSR, from page 19: the ADF's operational success will depend on the ability of the Integrated Force to apply the following... a fully enabled, integrated amphibious-capable combined-arms land system.

It further clarified that statement in para 8.28: Australia's Army must be transformed and optimised for littoral manoeuvre operations by sea and elaborated in para 8.33: It is essential to immediately accelerate the acquisition of LAND 8710 Phases 1-2 – Army Littoral Manoeuvre Vessels (Landing Craft Medium and Heavy) and expand the scope of this capability. Without this, only limited numbers of major land capabilities can be projected offshore.'

As Mark observes:

The subsequent SFR (Surface Fleet Review) was utterly silent on the LHDs and CHOULES, almost as if they were not part of the fleet anymore. Many expected the planned self-defence upgrades, so sorely needed, would be announced given the priority of amphibious warfare. These self-defence upgrades would give the ships the survivability needed in a peer-peer conflict.

However, the rapid jump to a medium (18) and large (8) army watercraft solution has not been explained and seems to be a predetermined outcome, if not a bias, towards this sort of capability. Further, it seems to be a solution in of itself, as it does not consider the necessary escorting and supporting arrangements to fully operate the capability in hostile waters.

Schweikert provides innovative solutions to the questions posed and asserted by the DSR but not adequately addressed in the FSR – giving rise to the Deplatformed? image on the Front Cover. He concludes:

If the rumours are true that one or both our LHDs are to be withdrawn along with HMAS CHOULES in favour of the army watercraft options, then we truly are in an age of defence strategy that can be best described as wilful impotence. Which does nothing for the edict first attributed to Emperor Hadrian (76-138AD), accredited to Vegetius (379–395 AD):

Si vis pacem, para bellum

(if you want peace, prepare for war).

Senior international security analyst, Ascanius Alba, considers Paul Keating's critique of AUKUS. In "diagnosing before prescribing," his paper examines current strategic challenges, focusing on:

- China's Anti-Access/Area Denial (A2AD) strategy;
- Australia's strategic missteps and reliance on U.S. policy through AUKUS, and;
- whether the U.S. can be relied upon for a sustained commitment in the Indo-Pacific.

Ascanius concludes, inter alia:

The strategic choice, is not between isolationism or blind dependence but "pragmatic strategic cooperation." Australia needs to pursue greater self-reliance, not as a replacement for AUKUS, but to complement it. Australia requires the industrial and strategic thinking capacity to project its own interests, while simultaneously ensuring that its Alliance(s) with the U.S. remains strong and mutually beneficial... charting a course toward a future, where Australia's sovereignty and security are safeguarded by its own sovereign strengths – in concert with its allies.

As Keating emphasises: Australia's fate must not be determined solely by the decisions of an aggressive ally, or by the pressures of an assertive China. Australia's destiny is its own to shape. It must do so with resolve and a commitment to self-reliance and pragmatic strategic cooperation.

There are parallels to the situation faced by the Greeks at Salamis in 480 BC, with those faced by Australia (and the U.S.) in May 1942, at the *Battle of the Coral Sea*. Paul Morrison (paper 4) concludes, *inter alia*:

...the Persians were defeated and Xerxes, realising his sea borne logistics lines were no longer safe, reluctantly ordered his fleet, and thus the army, to withdraw. Although not a decisive defeat it was enough though to force the Persians on the defensive. A year after the Battle of Salamis, they were decisively defeated in a land battle at Plataea which brought the Persian invasion to an end.

The Athenians had made plans in the event of a loss [at Salamis]. Transports and warships were ready to evacuate the Athenian population from the island under cover of darkness. They were to be resettled in the Greek colonies in either Sicily or Southern Italy...Athens and her allies would have dominated Italy, and perhaps there would have been no Rome – western history would therefore have taken a different course.

The Japanese were not defeated at the *Battle of the Coral Sea*, then neither was the RAN or USN fighting together for the first time. Admiral Andrew Robertson AO DSC RAN (Rip) wrote in 2015:

Overall, though with the loss of USS LEXINGTON, a tanker, and a destroyer, it could be said that the USN suffered a greater loss, the battle was a strategic victory. The carrier YORKTOWN was damaged but after a herculean repair effort in Hawaii was able to join US carriers in the Battle of Midway. The Japanese suffered their first check of the war and never again attempted to enter the Coral Sea except with submarines and aircraft. The small Japanese aircraft carrier IJN SHOHO was sunk and the SHÕKAKU was heavily damaged. The ZUIKAKU had major losses of aircraft and trained aircrew. Neither Japanese carrier was able to take part in the decisive Battle of Midway which took place three weeks later.

...it is interesting to consider the possible situation had the *Battle of the Coral Sea* resulted in major defeat, including the loss of both American aircraft-carriers. The Americans would then have had only two aircraft-carriers in the subsequent Battle of Midway against five or even six Japanese carriers. The East Coast of Australia would have been open to attack, not just by submarines, but by aircraft-carriers and battleships. Landings on our shores may even have occurred — "western history would therefore have taken a different course." [3-5]

In his examination of Global GDP from 1815, Dr Reay Atkinson notes that "significantly, in comparative terms, the U.S. came out of COVID (2020-2022) stronger than China. For the first time since 1946, showing an increase in its share of world GDP. [25] If global GDP is also increasing, COVID could mark the end of the *GFC Recession* (2010-2020)?" He also takes on Paul Keating's critique of AUKUS, concluding that China might be in a lonely place and needing [our] help:

As per the Soviet Union in 1974 (and Japan in 1992), China's economy might have peaked between 2005-10. To be stuck today with moribund industries, obsolescence, and ageing (non-platformed) products — at the onset of the *Synthetical Age*. Its declining economy (in real terms) and ageing population, may make it increasingly vulnerable to societal pressures — exacerbating conditions for distracting military adventurism, such as in the South China Sea.

He asserts that "while the seven maritime choke points – Strait of Hormuz, Bab-el- Mandep Strait, Strait of Malacca, the Danish Strait, the Turkish Strait, Cape of Good Hope, Strait of Gibraltar, Suez Canal, and Panama Canal – remain in play, there can be no return to Globalisation." This stresses the absence of the RAN in support of the U.S. and UK (and EU Allies) in patrolling the Red Sea. Simon examines, through the lens of Global GDP, the impacts of both World War 1 and 2 – noting "globalisation is based upon the trusts necessary for global maritime free trade and that over 80% of the volume of international trade in goods is carried by sea, and 95% of all communications (cyber-internet) connect via highspeed submarine cables". Running through the very same maritime chokepoints. He examines Australia's and China's alliances in terms of GDP and concludes:

By not fully funding the ADF in the early 2020s, Australia may be unable to sufficiently establish the maritime trusts necessary for near term regional and global stability. To contribute, Australia needs an effective, balanced navy and merchant marine – at the size, scale, and tonnage (including Army) at least three times its current size to enable good things to happen, and deter bad.

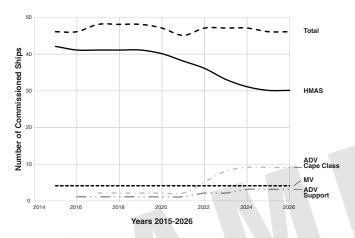


Figure 1: RAN (HMAS ADV) Ship Strength 2015-2026

Funding Defence

Recent articles in the mainstream media – including Greg Sheridan in *The Australian*, has recognised what NLA Defence Analysts and *The NAVY* have been saying all along. That 3% GDP spent on Defence is necessary by 2032/3 to fund ADF and AUKUS, without hollowing out Navy, Army, and Air Force. You cannot do both for 2% GDP. Yet cuts, freezing and defence cost inflation is driving Defence spending down towards 1.5% GDP by 2028/9 (in \$2022/23). This is impacting recruitment and retention. The critiques by Paul Keating, Bob Carr and Gareth Evans, will be realised if AUKUS is not adequately funded. But worse still, if the result of non-funding

is to dimmish our forces while eroding the trusts of our principal Allies in our ability to deliver – this will be a lose-lose. Undermining both credibility and sovereignty.

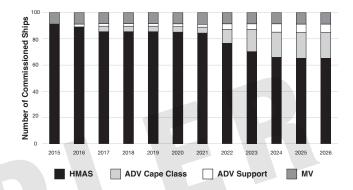


Figure 2: Percentage of HMAS versus ADV in RAN

Nowhere is this seen more clearly than in Navy. Navy in 2015 was about 42 HMA Ship's strong. Today it is 31 and, with another *Anzac-class* due to decommission shortly, this may be thirty by 2025/6. As HMAS *Armidale-class* patrol boats have decommissioned, there has been an uptake in the Australian Defence Vessel (ADV) *Cape-class*. The *Cape-class* is crewed by RAN and Border Force personnel – yet wears His Majesty's Australian White Ensign (AWE). There are, additionally, three other ADV support ships, with merchant navy (plus RAN specialist) crews – that similarly wear the AWE. In broad terms, (HMAS and ADV) has remained at about 46 ships – but the percentage of HMA crewed Ships has reduced from over 90% to 65%. Raising questions as to ADV legal status as a warship (under the AWE); auxiliary versus warship; and, (potentially) a backdoor replacement of HMAS with ADV, in the event of a Republic?



NUSHIP ARAFURA (Image RAN).

On top of the lack of shipbuilding – the *Hunter-class* and AUKUS submarines are decades off – the *Arafura-class* remains in question. Another crisis may be brewing in terms of the cut in number of the class from twelve to 6. The shipbuilder was contracted for 12 (and starts breaking even at six). It remains unclear when (due in 2024) NUSHIP ARAFURA will be commissioned into Navy.

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I HAVE THE CONN

It is with great humility and pride that I announce that the Navy League has elected me as its interim Federal President at a recent online meeting. The unexpected honour came about as a result of the previous Federal President, Mr Matt Rowe, regrettably being unable to continue in the role and resigning with effect from mid-August.

Matt has done a sound job in keeping the NLA ship on point during a time of increasing pressures from external agencies vying for the naval commentary spotlight, as well as the growing social media emergence - reinforcing the importance of the NLA and The NAVY to speak with authority on maritime defence matters. Membership of associations and organisations is also dwindling because of social media. Although recent trends reinforce the need for organisations such as the NLA with an uptake of authentic hard-copy journals of record, such as The NAVY.

Mr Rowe now takes on the role as 'immediate past President,' following on from Mr Graham M Harris RFD. The position of Immediate Past President is a vital one to the League's governance and its future and thus an important ongoing function. Mr Rowe was thanked by me as interim Federal President and the Federal Council for his service over the past six years.

At the League's AGM in Canberra later this year all positions will be decided on and a new team will take the watch.

I have had a long association with the Navy League which started on the gangway to the aircraft carrier HMAS MELBOURNE when my father took me to see the Garden Island open day during Navy Week in 1983. The first ship I boarded was our last aircraft carrier. While going up the gangway a naval cadet sold us a copy of *The NAVY*. The irony being that later I would become *The NAVY*'s editor from 1999 to 2015, and now its President.



HMAS MELBOURNE at Sea in 1981 - when she was largely operating S2 Trackers in the ASW Role (Image Navv).

IN PERIL

It would come as no surprise to many readers of THE NAVY that this writer's position on the DSR (Defence Strategic Review) and the SFR (Surface Fleet Review) is not one of... great support. Particularly as the current Government appears to be deferring much needed defence spending (and not funding their own reviews) till their third or fourth term in government. Which, by all accounts, will be too late.

While nuclear powered submarines (SSNs) are already taking a slice of the defence budget pie, supplementation consideration for such a nation building endeavour is warranted given the long-term benefits to Australia.



HMAS Anzac in Sydney Harbour following her last patrol (Image ABIS Tom Gibson).

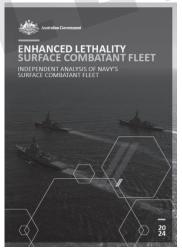
When the ANZAC-class frigates finished building, the Australian Seante ordered a report on the national benefits of building defence equipment locally using the ANZACs as the metric. It found that while there was a cost premium to building local, the benefits outweighed that cost. In fact, the building could actually be seen positively in the GDP figures for the nation.

So, a supplementation budget, separate to the defence budget, would be quite appropriate and would allow for the full funding of the DSR and SFR now as a matter of urgency. The threat from China is not going away and has been increasing on this government's watch, particularly in the Philippines. Yet we have more and more warships decommissioning without replacement, and now rumours are spreading of even more early withdrawals from service of our most significant deterrent asserts.

Industry, the canary in the cage, is also feeling the pinch with the lack of business. Despite the government's dire strategic rhetoric, Australia's defence industries are laying people off. Every major defence related company in Australia, be they sovereign or foreign owned but Australian operated, has laid off significant numbers of people at a time the government rightly says is the most dangerous since the start of World War two.

Given these dangerous times and circumstances I implore all these reading this to either join the League (if not already) or try and recruit just one more person. Governments' will respond to an organisation's advocacy only when they realise the organisation has a large membership base spanning many electorates. This role of maritime defence advocacy is why the Navy League was established in the first place nearly 125 years ago. Not much has changed.

20 September 2024



Surface Fleet Review 2024.



ANNUAL GENERAL MEETING OF THE NAVY LEAGUE OF AUSTRALIA

By order of the Federal Council Mark Schweikert Interim President

Notice is hereby given that the AGM will be held on

8 November 2024 – 13:30-17:00 – Kurrajong Hotel, Canberra 9 November 2024 – 09:00-17:00 – Kurrajong Hotel, Canberra

BUSINESS

- 1 To confirm the Minutes of the Annual General Meeting held on Saturday 21 October 2023
- 2 To receive the report of the Federal Council
- 3 To receive the financial statements of the year ended 30 June 2024
- 4 <u>To elect Office Bearers</u> for the 2024-2025 years as follows: Federal President, Federal Senior Vice-President, Additional Federal Vice-Presidents (3).

To appoint Office Bearers for the 2024-2025 years as follows: Honorary Federal Treasurer(s), Honorary Federal Secretary. Nominations for these positions are to be lodged with the Honorary Secretary Ray Gill.

5 GENERAL BUSINESS:

To deal with any matter notified in writing / email to the Honorary Secretary Ray Gill by 25 October.

All members are welcome to attend

Please register your attendance / General Business by email / letter by COB Tuesday 25 October to Honorary Secretary Ray Gill.

Honorary Secretary Ray Gill: PO Box 146, Warrandyte, Vic 3113 Email: raydotgill3738@gmail.com, copy: nsw@navyleague.org.au



HMAS SYDNEY (DDG 42) fires Naval Strike Missile (Image LSIS Daniel Good)

NEW MARITIME SUSTAINMENT MODEL (MSM)

Senior Defence leaders and industry partners officially launched the Destroyer Enterprise at the Osborne Naval Shipyard recently, ushering in a new era of evolution and sustainment for the Hobart-class air warfare destroyers HMA Ships Hobart, Sydney and Brisbane.

Defence and Australian industry partners BAE Systems, Lockheed Martin, Thales, Saab, Raytheon and Navantia formally signed the Enterprise Charter, affirming a commitment to partnership under values of respect, openness, teamwork, professionalism, and collaboration. Under the charter, the

enterprise will focus on maintaining and enhancing the air warfare destroyers on time and to a high standard, ensuring the class continues to meet the requirements of Navy.

The establishment of the enterprise highlights the importance of collaboration between Defence and industry, as part of the investment to enhance the lethality of Navy's surface combatant fleet as directed by Government earlier this year. The nation dependent on our sea lines of communication and committed to working with industry in the sustainment of Navy's air warfare destroyers, ensuring they continue to play a key role in our surface fleet and contribute to a fully integrated and more capable ADF.

A key element of PLAN GALILEO, the signing of the charter demonstrates the intent to fully implement the updated Maritime Sustainment Model (MSM) and ensure ships can be deployed where and when they are needed. The announcement of BAE Systems Australia as the capability lifecycle manager of the Hobart-class destroyers and Thales Australia as the regional maintenance provider — East, bringing the MSM to life and seeking to modernise the traditional approach to ship sustainment by the Naval Shipbuilding and Sustainment Group.



The Virgina-class submarine DELAWARE just before her launch (USN)

SUPPLEMENTARY FUNDING FOR AUKUS SSN

Operating and building nuclear powered submarines in Australia will be such a positive nation building activity (as seen with ANZAC and Collins) that the Government should allocate supplementation funding to Defence in order to allow for the funding of the Government's own DSR and SFR.



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AN ARMY SOLUTION TO A NAVY PROBLEM

By Mr Mark Schweikert

In a time of growing strategic threat, the Government's two quintessential strategic guidance documents, The Defence Strategic Review (DSR) and The Surface Fleet Review (SFR), have marginalised the ADF's current amphibious capability in favour of a lessor capability. What should be a navy issue has been handballed to the army but in a way that does not enhance the ADF's ability to deter conflict. Mark Schweikert takes a look at this situation.



A computer generated image of the winning design for Army's new watercraft medium. 18 will be purchased and built in Australia. (BIRDON)

The recent Defence Strategic Review (DSR) placed a surprising emphasis on medium to heavy sized army owned and operated watercraft. Its premise was to transport land power components around the region's many islands. Given the emphasis on amphibious warfare it seemed very strange that the DSR was silent on navy's current and significant amphibious capability. Which cannot only achieve the intent of the DSR statements but surpass it.

A review of the DSR provides clear direction. From page 19 of the DSR:

The ADF's operational success will depend on the ability of the Integrated Force to apply the following ... a fully enabled, integrated amphibious-capable combined-arms land system.

It further clarified that statement in para 8.28:

Australia's Army must be transformed and optimised for littoral manoeuvre operations by sea.

and elaborated in para 8.33:

It is essential to immediately accelerate the acquisition of LAND 8710 Phases 1-2 — Army Littoral Manoeuvre Vessels (Landing Craft Medium and Heavy) and expand the scope of this capability. Without this, only limited numbers of major land capabilities can be projected offshore.'

The two LHDs CANBERRA and ADELAIDE and the LSD CHOULES, represent the greatest amphibious capability in the south west Pacific and southern hemisphere, yet were totally ignored in the DSR, with rumours now circulating that the three ships may get an early withdrawal from service.

It should be noted that each LHD can carry up to 1,000 troops, with heavy tanks, armoured infantry fighting vehicles, self-propelled and/or towed artillery, long range rocket systems, logistics and with four landing craft to help get those assets ashore with up to 20 helicopters of all types to also assist.

CHOULES herself has one landing craft, two mechanised barges for heavy equipment and can transport nearly 60 heavy tanks in one lift, and with at least one-two helicopters. This is a considerable regionally superior capability in any one's language, but apparently not with all the DSR's authors.

The subsequent SFR (Surface Fleet Review) was utterly silent on the LHDs and CHOULES, almost as if they were not part of the fleet anymore. Many expected the planned self-defence upgrades, so sorely needed, would be announced given the priority of amphibious warfare. These self-defence upgrades would give the ships the survivability needed in a peer-peer conflict.

However, the rapid jump to a medium (18) and large (8) army watercraft solution has not been explained and seems to be a predetermined outcome, if not a bias, towards this sort of capability. Further, it seems to be a solution in of itself, as it does not consider the necessary escorting and supporting arrangements to fully operate the capability in hostile waters.

The *Minister for Defence Industry*, Pat Conroy, when announcing the decision to build the first 18 medium watercraft stated that this acquisition was to give Army a littoral manoeuvre capability however, none of the vessels will have the ability to defend themselves in a modern maritime missile age warfare environment, let alone from drones. The lesson and requirements for this was seen with tragic consequences in the 1982 Falkland conflict with two large amphibious vessels, SIR GALAHAD and SIR TRISTAM being lost at Bluff Cove. They had no basic air defence capability and once found by the enemy, were easy targets.

The planned army watercraft are range limited and their use will be conditional on full Sea Control (a) having been established by other units of the ADF.

The planned army watercraft are range limited and their use will be conditional on full Sea Control (a) having been established by other units of the ADF. (Command of the sub surface, surface, and air over the sea and to operate in that domain without enemy interference).

Sea state will also be a factor in their ability to transit to far off target areas, which will affect their utility to achieve operational outcomes. In a soldier's vernacular, they appear to be "a self-licking ice cream".

Ironically, the academic pendulum seems to have swung in the last 15 years from 'watercraft are no longer useful due to the use of helicopters and anti-access strategies' to 'we now need to accelerate watercraft production and use'.

Also missing from the DSR and SFR for this new capability, is the fire support the new capability requires to get troops ashore and keep them alive (and moving forward) while ashore.

A single Mk-45 5-inch (127mm) gun from one of our Tier one or Tier two warships (assuming the new Tier 2 has a 5-inch gun) will not be adequate to keep our soldiers from dying in the operation.

Fire support, in the form of Naval Gunfire Support (NGS), needs to be given more consideration, otherwise the new watercraft are



The RAN's two LHDs CANBERRA and ADELIADE at Sydney's Garden Island. Along with HMAS CHOULES, the three ships represent the most capable amphibious capability in the South West Pacific and Southern Hemisphere, yet were totally ignored in the Government's DSR and FSR. (RAN)

unemployable in wartime. Ironically the same argument was put forward in the SFR to cancel 50% of the Arafura class OPVs given they couldn't protect themselves in wartime.

While many believe that the coordination function is more important in the employment of joint fires, it's still a weight of fire and sustained time that produces results in amphibious operations.

THE ADF FIRES PROBLEM

After a less then successful episode at the hands of enemy shore batteries (at *Santa Cruz* — which General at Sea Robert Blake won, causing Nelson to comment "Blake was clearly a better Admiral than me!"), Lord Nelson vented his famous statement on the effectiveness of naval gunfire against shore targets:

A sailor's a fool, he said, to fight a fort

It took nearly two centuries or warfare technology advancement before that statement could be confined to the dust bin history, when effective naval gunfire support became a decisive factor in mid-20th century amphibious operations such as the D-Day landings in Normandy and the many Pacific Island campaigns during WWII.

The missions of NGS are: first, to destroy, prior to the landing, every known weapon or installation which is capable by direct or indirect fire of hindering the movement ashore of the force. In other words, to secure the environment. Second, to provide all supporting fires for the force ashore prior to the landing and establishment of land-based artillery. Finally, after the artillery comes in, to assist further efforts to the maximum by reinforcing and augmenting the organic artillery of the landing force.

The RAN has, for many decades now, been a frigate navy. The guns used for the NGS mission have thus been somewhat lightweight,

dual-purpose weapons – their lineage being in the anti-aircraft role. While precision standoff is the military 'fad du jour', weight, volume and sustainment are actually more important during an assault phase, i.e. keeping the bugger's heads down. This is known as suppression.

Effective suppression fire consists of weight of fire, rate of fire and time. Precision and standoff are good for the firer, but not so good for those being supported as precision shells take longer to load, thus reducing the RPM (rounds per minute), and also have a longer time of flight due to the supporting platform's ability to be much further away from potential danger.

The Navy's current Mk-45 5-inch gun, is a fully automatic gun mount used primarily for NGS. It was initially deployed in 1971 and replaced the legacy Mk-42 5-inch/54-calibre gun, as seen on our previous $Charles\ F.\ Admas/Perth\ class\ DDGs.$

The Mk-45 was designed to be lighter in weight and easier to maintain than its predecessor. The gun mount includes a 20-round automatic loader drum with a maximum firing rate of 16 to 20 RPM. It can be operated by the Mk-160 Gun Computer System or the Mk-86 Gun Fire Control System and has a range of approximately 24kms.

There are two variants of the Mk-45 currently being used in the RAN: Mods 2, and 4.

The Mk-45 Mod 2 has a 54-calibre length barrel (270 inches). Whereas;

the Mod 4 includes several improvements to previous mods, including a longer 62-calibre barrel (310 inches) as well as improvements in gun performance and maintainability

For the sustained fire role, the gun mount would be occupied by a six-person crew (gun captain, panel operator, and four ammunition



HMAS CANBERRA with a full load of helicopters. The amount of lift, speed and range provided by the rotary wing element of the LHDs is truly remarkable, yet rumours persist of the LHDs early withdrawal in favour of medium and large watercraft operated by Army. (RAN)

loaders) below deck to keep the gun continuously supplied with ammunition. However, in this case sustained fire is limited by the heat the barrel produces and the amount of ammunition carried. Some 5-inch guns currently on the market come with a water cooled barrel and higher rates of fire to provide sustained fire support.

Mk-45 guns are employed on the *Hobart-class* destroyers, the seven *ANZAC-class* frigates (soon to be six) and the future six *Hunter-class* (down from nine). But is one gun per ship enough to support Army ashore?

It is easy to understand how this dependence on the Mk-45 came about. The USN has long been the leader in naval technology and concepts. Many navies are thus quite happy to follow what the USN does. In this case, the USN has concentrated on the Mk-45 5-inch gun (for dual purpose tasks, but predominantly for anti-defence and near surface engagements).

Many analysts seem to have overlooked the point that the USN operates as a system of systems (*en masse*). For its Marines going ashore, they have organic fixed wing air support, usually four *Viper* attack helicopters and six F-35B, minimum. They also tend to deploy 100,000 tonne super carriers with 80 fixed wing high performance aircraft and tend to pummel the area with cruise missiles before the landing.

No [other] Navy or Defence force can do this, nor has had to find out the hard way since WW II that this system of systems is how the USN is able to achieve what it can. Which is why the 5-inch gun with its low rate of sustained fire is considered acceptable.

The USN has at times realised it needed weight and rate of fire for its amphibious operations. It was able to achieve this through the reintroduction of the *Iowa-class* battleships for the Korean War, Vietnam War, Cold War, and off Iraq for the first Gulf War. In fact, it was the power of the *Iowa-class* battleships NGS capability operating off North Vietnam that is said to have forced the North Vietnamese to the negotiating table in Paris, with their withdrawal a condition of the communist regime. The same ships created a similar military and psychological impact on the Iraqis during the first Gulf War.

To understand the ADF's inadequacies in amphibious fire support capability one only needs to go back to 2003 to the second Iraq war.

The UK's 3 Commando Brigade was tasked to assault the Al-Faw peninsula which guarded a strategic waterway into Iraq. To support the Brigade's helicopter borne amphibious assault, four-gun armed frigates, including HMAS ANZAC, were used for NGS, plus four 155mm Howitzer Batteries (six guns each for 24 guns) from a nearby island, and attack aircraft from the carrier USS CONSTELLATION.

Enemy positions had also been subject to intense air bombardment from USN and USAF aircraft and USMC attack helicopters (and *Harriers*) for weeks before the assault.

Opposition was, unsurprisingly, light and the UK's 3 Commando Brigade's mission successful. Not wishing to dimmish the historical significance or HMAS ANZAC's efforts, but it's easy to see how the RAN/ADF is potentially deficient for fire support for such an operation given how much was deployed to support this heli-borne amphibious assault against such depleted opposition.

Based on the coalition resources used to take the Al-Faw peninsula against a relatively minor force, a basic anti-access strategy by a potential enemy could have Australia's considerable efforts to build a medium watercraft based amphibious capability come to nothing.

Another aspect to consider is the ISR (Intelligence, Surveillance and Reconnaissance) requirements of the amphibious force. Not only is weight of fire important but also the targeting ability to detect targets, identify them, designate and direct fire on to them.

Targeting, particularly in denied environments against an advanced adversary, is likely to be challenging to say the least, and will be highly dependent on organic assets, principally UAVs (unmanned aerial vehicles) or drones, which are yet to materialise in the required numbers in the ADF and which will need to operate from a platform like an LHD. This issue is not confined to NGS. Targeting in general is likely to be a challenge in many maritime and littoral warfare areas. However, NGS requirements for rapid and accurate firing information make the problem particularly difficult and one that needs attention.

Current *sensor-to-shooter* timelines are far too long to support effective engagement on a fluid battlefield. NGS for manoeuvring forces ashore must be capable of responding at very short notice to calls for fire.

A single ship firing rounds from a single gun, even if targeting is optimal and command and control (C2) is well executed, is physically limited in the targets it can reach and the numbers of targets it can simultaneously service. This suggests that a single-ship model simply might be unworkable in heavily contested environments, no matter the capability and capacity of individual ship.

UP ARMED ARMY

One way Army could compensate for Navy's deficiency in NGS and meet its support requirements is through the Finish made waterborne 120mm Mortar platform knows as the Patria NEMO. This fully self-



HMAS ADELAIDE with one of her own four watercraft reversing out of the well dock. Navy spent some considerable time and money altering the Spanish built LCM-1E watercraft to carry the M-1A1 Abrams tank. (RAN)



USN ESB Ships WILLIAMS and PULLER in the Gulf of Aden. The ESB ship can carry watercraft and other support elements into theatre for watercraft to range out from. However, Navy's existing LHDs can do the same. (USN)

sufficient 1.9 tonne containerised system can be bolted to the deck on almost navy or army waterborne platform, including small craft. Each system can fire all NATO standard 120mm mortar bombs (of which there are many different natures for different target effects required) over a range of 10kms+ and at a sustained rate of fire of six RPM for more than 10mins, before needing reloading.

Several small craft operating together could thus form the fire support capability necessary to support troops ashore in contact while leaving more valuable Tier One and Tier Two surface combatants over the horizon. The system can be employed on the move and in a direct fire mode.

Given the inherit deficiencies in the Army's watercraft capability (short range, no self-defence and sea state) one way the DSR and FSR could have alleviated vulnerabilities is through the use of the new US *Expeditionary Sea Base* (ESB) concept ship.

The US ESB ship class is a mobile sea-based platform that forms part of the infrastructure, mostly missing, to support an amphibious deployment of forces, equipment, logistics and warfighting capability at range into the littoral warfare space.

In USN service the ESB six ships were initially known as the Mobile Landing Platforms (MLP) and MLP Afloat Forward Staging Base (AFSB). The design of the class is based on the Alaska-class crude oil carrier built by General Dynamics National Steel and Shipbuilding Company (NASSCO). A commercial design was used to ensure design stability and lower development costs.

ESB have a four-spot flight deck, mission deck and hangar and are designed around four core capabilities: aviation facilities, berthing, equipment staging support and command and control.

They can also carry army's watercraft (and Patrai NEMO 120mm fire support craft) to the area of operations in a ship that can keep up with other fleet units, can be fitted to defend themselves, operate in very high sea states and have the range to allow the watercraft capability to operate more effectively in theatre.

LETTERS OF MARQUE?

In the past, the USMC has made their amphibious landing requirements for NGS known to the USN through a series of official letters. The first such letter was sent in 1996, with a follow-on letter in 1999. The most detailed letter was sent in 2002 with the subject line "Naval Surface Fire Support Requirements for Expeditionary Manoeuvre Warfare". This letter, signed by then Lieutenant General Edward Hanlon, Jr., is often referred to as the "Hanlon letter" or the "2002 letter." It noted:

Over the past...[six] years, this Command produced...[letters], outlining the Marine Corps' requirements for Naval Surface Fire Support (NSFS). As we progress in this critical area of force protection and expeditionary littoral warfare, we find it necessary to emphasize and further clarify our NGS requirements.

The 2002 letter provided detailed threshold and objective requirements for seven capabilities:

- system response
- range
- accuracy and precision
- target acquisition
- ordnance effects
- volume of fire, and
- sustainment.

This letter also established the requirement that NGS should provide each landing infantry battalion with fire support equivalent to that provided by each battalion's direct support 155-mm artillery battery. This concept is sometimes referred to by Marines as the "155-mm battery equivalency".

The Zumwalt class destroyers and their new 155mm gun turrets were to address much of the USMC's NGS concerns, but they and their gun systems have since been terminated and the ships to be fitted with more vertical launch cells for strike missiles.



A somewhat asymmetric an innovation solution to army's fire support needs could be this Finish designed and manufactured Patrian NEMO 120mm mortar system, seen her on a small watercraft. Able to fire on the more at targets over 10kms away, it can make for a formidable fire support asset in the littoral to support amphibious operations. (Patria)

In the ADF context, it is not known if such a similar letter or requirement has ever been produced by Army to Navy. One could suspect that Navy's rusted on adherence to the US Mk-45 127mm gun could indicate it has not been made aware of the fire support requirements of an infantry company in contact given the fondness to emphasise their guns' precision standoff capability, rather than its suppression qualities.

WILFUL IMPOTENCE?

Navy would do well to learn the lessons of the Battle of Long Tan from the Vietnam war, where fire support in the sustained suppression role allowed 108 Aussies to fight off nearly 2,500 Vietnamese troops. Artillery (ergo NGS) is a great battlefield leveller.

To land troops from the sea generally requires sea control to have been established in order to avoid failure. To provide effective NGS, a fleet must be able to manoeuvre with relative freedom within the littoral zones. Some argue that the DSR's approach is based on historical examples from Australia's experience in WWII. That might be right in isolation. However, one must also consider that the Allies had complete sea control over our area of strategic interest that allowed army watercraft almost complete access and manoeuvre around the Pacific littoral. Japanese forces were in decline after some years of conflict and were generally cut off from supplies and support (withering on the vine).

Some will argue "we don't do Normandy style" amphibious assaults anymore and thus do not need heavy ships for massed landings or any fire support. Such a statement conveys a complete misunderstanding of the Normandy campaign and betrays their knowledge to what Hollywood has depicted of the operation. For example, most of the beaches were captured in minutes, some in seconds. The intelligence preparation of the battlefield and subsequent barrage that preceded the landings had much to do with that success. Most casualties from the Normandy campaign were after the beaches were cleared in the

infamous hedgerows. Let us hope Hollywood is not the basis for our lack of ability to understand amphibious operations in more depth.

If the rumours are true that one or both our LHDs are to be withdrawn along with HMAS CHOULES in favour of the army watercraft options, then we truly are in an age of defence strategy that can be best described as wilful impotence. Which does nothing for the edict first attributed to Emperor Hadrian (76-138AD), accredited to Vegetius (379–395 AD):

Si vis pacem, para bellum

(if you want peace, prepare for war).



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STS LEEUWIN IN CATASTROPIC ACCIDENT

The Pride of the Western Australian Youth Sail Training organisation, STS LEEUWIN was involved in a catastrophic collision with the 333-metre long container ship *Maersk Shekou* SHEKOU whilst entering Fremantle harbour in the early hours of a morning in late August.



The container ship during a squall impacted the WA Maritime Museum, hitting the wharf and crashing into the STS LEEUWIN with such force it destroyed all the rigging and masts injuring two crew members aboard. At the time, the container ship was under the control of two pilots and four tugs.

Dropping anchor to slow the vessel down was not enough to stop the ship from doing incredible damage to the infrastructure in the port and STS LEEUWIN and resulting in a hole and tear in the container ships port quarter emergency repairs were undertaken on the ship with the repair plate measuring 3600x1200mm the repair work was undertaken successful by local company Fran Marine.



The LEEUWIN awaits assessment of the extensive repairs required to make the sailing ship seaworthy again. As the RAN's YOUNG ENDEAVOUR is to the Eastern seaboard, LEEUWIN is used quite extensively for Australian Navy Cadets in Western Australia and many other young potential sailors.



THREE SHIPS FOR THE AUSTRALIAN STRATEGIC FLEET GOES TO TENDER

The MUA 6 September welcomed the announcement by the Federal Government that the first tranche of three ships will be put to a public tender in the coming weeks. The pilot programme will run for five years and is the first step towards establishing the Strategic Fleet of at least 12 Australian flagged and crewed vessels that the Government committed to ahead of the last election.

Australian flagged and crewed vessels are an essential economic and strategic resource that will bolster our national security, disaster resilience and strengthen our place at the end of long global supply chains. As an island nation whose major economic activities are reliant on shipping, it defies logic that we vest so much of our economic and social security in the availability of overseas owned, controlled, and crewed ships.

The Strategic Fleet Taskforce included:

- Chair, John Mullen (former Chairman of Toll Logistics and Telstra, now Chair of Qantas)
- Paddy Crumlin, Maritime Union of Australia National Secretary
- Angela Gilham, Maritime Industry Australia Limited CEO
- Dr Sarah Ryan, Non-Executive Director of Aurizon, OZ Minerals, Viva Energy, Woodside Energy
- Major General Jason Walk, Commander, Joint Logistics, Department of Defence

The Strategic Fleet vessels will be owned and managed by the private sector but are to be made available to the nation in times of need, including during conflict or disaster. This key measure is in direct response to the vulnerabilities highlighted by disasters and international pressures that have affected Australian supply chains in recent years. Paddy Crumlin stated:

The MUA has worked closely with both the government, commercial participants in the maritime industry and representatives from the defence forces to help design the Strategic Fleet so that it is sustainable and successful in the long term while delivering tangible economic and strategic benefits for the nation. We look forward to seeing Australian seafarers walk up the gangway of the first tranche of newly Australian-flagged ships in the very near future.

AUSTRALIA SHOULD WORK WITH QUAD MEMBER INDIA ON STRATEGIC FLEET

While Indian ships may not be legally requisitionable by the Australian government, healthy retainers and contract activation fees would guarantee vessel supply in all but the direct of global catastrophes.

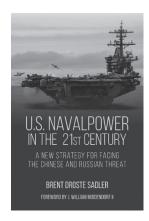
Baird Maritime Samuel Bashfield in early February argued that:

Contracts with the Indian shipping industry would satisfy many of the requirements associated with a strategic fleet. While developing a sustainable and vibrant domestic Australian shipping industry is a sound strategy, the costs are considerable, and Australia's international partners should not be overlooked. India's sizeable and rapidly modernising shipping industry is a potential key partner, which could underpin the resilience of Australia's shipping requirements in times of crisis.

The idea of the fleet relies on the Australian government's ability to requisition strategic fleet vessels when needed—which it cannot currently do outside times of declared war. Requisitioning arrangements would be achieved through contracts that specify shipping capacity at certain times and locations, as well as through legislation, with corresponding compensatory arrangements.

India's maritime sector is booming. According to Invest India, as of 2023, 1,526 ships sail under India's Tricolour and India is the world's 16th largest maritime country. India's Maritime India Vision 2030 strategy lays the framework for it to continue expanding its maritime sector.

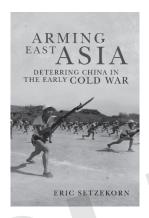
Indian ships need not transit maritime choke points or contested waters to reach Australia. In a conflict involving China, the South China Sea would most probably be inaccessible. Further, as half the world's container traffic transits the Indian Ocean, and approximately 40 per cent of the world's offshore oil production is derived from this vast seascape, Indian vessels are uniquely placed to supply Australia in a crisis.



U.S. NAVAL POWER IN THE 21ST CENTURY

A New Strategy for Facing the **Chinese and Russian Threat**

By Brent Droste Sadler USNI (15 May, 2023) ISBN-10: 1682477770 ISBN-13: 9781682477779 Hardcover: \$60.00



ARMING EAST ASIA

Deterring China in the Early Cold War

By Eric Setzekorn USNI: March 15, 2023 ISBN-10: 1682478513 ISBN-13: 9781682478516 Hardcover: \$48.00

The author, is a twenty-six-year Navy veteran with many operational tours on nuclear powered submarines. He has been a member of personal staffs of senior defence department leaders and military diplomat in Asia. Brent writes about great power competition, advanced technologies, and building the Navy the nation needs.

Sadler echoes many of the concerns raised in recent decades by The NLA and The NAVY. He argues "the world is on the cusp of a dangerous decade, and whether it becomes a violent peace or worse is a function of how we as a nation choose to respond. Already Russia has invaded Ukraine, and the danger of similar aggressions is growing. Time is in short supply, and the Navy has been unable to grow to meet these challenges fast enough - so conventional thinking must change".

Sadler describes what he considers as a "new theory to victory". This is, itself, a revolutionary concept—where victory is not in the lexicon of post-modernism. Let alone critical identity theory. Brent

- the ability to seize the initiative in an energetic approach toward a Free and Open Indo-Pacific and a global maritime strategy.
- Naval statecraft providing an active naval role
- Executing a Free and Open Indo-Pacific program

Sadler recognises that "the challenges are dire [but] to avoid ceding the world's maritime and associated prosperity away from future generations requires a unity of effort across the executive branch and Congress". Otherwise, the effort to build the Navy needed will falter in the headwinds of a questioning legislature, a distracted leadership, and a confused electorate.

In many respects the author reflects issues raised by Ascanius Alba in paper 1, and Simon Reay Atkinson in paper 2. It is by no means certain that the U.S. can overcome current stasis and re-find its sense of purpose. If it can, there is indication that the West might overtake China – as it did the Soviet Union in the 1970s. There is much, though, to indicate that China has already secured the South China Sea and the U.S. will be unable "to bolster and expand civilian shipyard skilled workforces and naval architect design capacity" in the time remaining.

A good, ambitious, well written and worrying book - essential reading before 2027.

Dr. Eric Setzekorn works for the U.S. federal government and lives in Falls Church, Virginia. After service in the U.S. Army and the intelligence community, he received his PhD from George Washington University.

Setzekorn argues that: "in contemporary East Asia, with an assertive PRC led by Xi Jinping, the need for an American-led deterrence force remains vital to the security of the region." Building on Eisenhower's approach in the 1950s, he asserts that the policy offered a strategic framework that remains a useful and viable template for American military policy today. Building the military capabilities of threatened allies - known as security force assistance - as part of American security and foreign policy as a response to enduring constraints on American international relations. This has specific implications to Australia and the increased basing of U.S. assets in the Northern Territory. Something warned of by both Xi Jinping, and ex-PM Paul Keating.

The questions remain – does this program remain valid in the 20th Century; is it already too late; in which case are we reinforcing failure? Eisenhower's mutual security program of allied "army building" was a 1950s counterpart to Truman's New Look strategic program. Based on developing allied military capability in Japan, Taiwan, Thailand, South Vietnam, and South Korea to create a defensive network to deter Soviet (and Chinese) aggression and protect American interests without "endangering American lives." Dr. Eric Setzekorn argues that "the mutual security program and military assistance in East Asia was part of broader strategy to constrain Chinese encroachment that included covert action, psychological warfare, diplomacy, and nuclear deterrence."

This book makes a valid contribution but raises specific questions about relevance, today. There is an indication of "tripwire foreign policy" - without "endangering American lives" - that plays into fears raised by Keating et al. For example, there is a need to consider network deterrence and envelopment – rather than containment. More fitting to the 21st Century, and which deals also with capacity. In sum, this book may be where the U.S. would wish to be – but is not where it currently may be, or can get to politically, economically, or militarily. Nor may the policy argued for secure peace through "deterrence and constraint". It may, in fact, make matters even more unstable and uncertain.



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HATCH: Iranian Navy Versatile Modular drone-carrier ship, the IRGC Shahid Bagheri including angled flight deck (Image IRGC for Iranian Navy).



MATCH: Feb 2024 The Iranian Revolutionary Guard Corps (IRGC) commissioned two new Shadid Soleimani-class Corvettes (Image Iranian Navy for IRGC).



MATCH: May 2024 Dalian Shipbuilding Launch 10th Type 055 Stretched Destroyer (Image Chinese Social Media).