

MAY 2023 Jolume 7, Issue 5

DOWN THE VOICEPIPE do you hear there!





Navy League of Australia Western Australia Division News update

Sadly, this month saw the passing of Frank McGovern, the last remaining survivor of HMAS PERTH I and although some may say he had a good innings at 103 it regrettably brings to a close the last living link with the ship. In saying that, the ship's memory and that of the crew will live on as a result of our memorial which I'm happy to say is forging ahead.

Merely days after Frank's passing I was both honoured and privileged to be a guest speaker at Memorial Day which was held in our facility and was studiously planned by the Veteran of Foreign Wars of the United States (VFW). Also pleasing to see was the great turnout, certainly the most I've seen. Guests on the day included US Consul General Siriana Nair, CO HMAS PERTH III CMDR Tony Nagle, a good showing of officers and sailors from HMAS PERTH III, RSL

WA were represented, family and friends of the VFW members and of course the Marines, Navy, Army and Air Force personnel who actually make up the VFW. As we look to expand our memorial it is hoped that now a precedent has been set that next year's Memorial Day will be bigger than this one and will grow into the future, being a dedicated place to remember or reflect for the American service community. Thanks go to James Maughmer for his hard work in organising this day.

I'm looking to get our NLWA trips up and happening again, hopefully in time for July and every couple of months after. As always, our members are invited to attend. No doubt we are all itching to get away again for a weekend or a few days to break the monotony of work, home maintenance and all the mundane things we do in general.

Until next month

Brad













HMAS PERTH (I) MEMORIAL UPDATE Incorporating NLWA and the HMAS PERTH (I) Memorial Foundation Incorporated





Jim O'Neill CMDR ANC RTD Project Manager

This month we start off with some sad news that the last surviving member of HMAS PERTH (I) Able Seaman Frank McGovern RAN RTD aged 103 has passed away. His story follows on the proceeding pages.

On the fiftieth anniversary of the sinking of HMAS PERTH a white ensign was taken down to her and attached to a twin 6"mounting. Some time later Clive Carlin the diver who attached the ensign retrieved it. Two weeks ago he forwarded it down to us as part of the collection of PERTH (I). This is a very important artifact as it has been attached to the remains of the ship. We are extremely grateful for his generous presentation. The intention is to have the ensign together with inscription and photograph mounted in a airtight frame and mounted in the memorial.

I am please to inform you that the Town of East Fremantle have now issued a building permit for the concrete slab which will be installed in the coming weeks. Red tape Red tape we are held up in submitting the remainder of the memorial due to having intense discussions with authorities to ensure we have enough pressure in the water main to extinguish any fire at the facility in the future, hopefully we can get a resolution to proceed in the very near future as it is now holding up the completion of the final stage of the memorial. Our budget remains extremely tight as prices for materials and labour continue to increase however we are searching for further sponsorship on different parts of the structure. Donations no matter how large or small are welcome. To complete this National Memorial of Naval Significance in time for the 82nd. Anniversary of its sinking on March 1st. 2024.

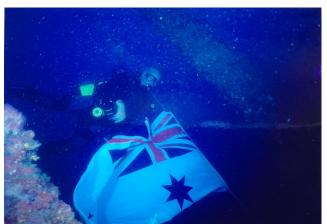
A small business committee is working religiously weekly to ensure that the highest attention is paid to the engineering and total project to the highest standard to be achieved.

Navy League WA has three new members and we welcome them aboard Joshua Aston, Roy Stall and Dr. Todd Hutchison.















Top Photograph Andy Mclean, Jim O'Neill, James Hamilton Presentation of The White Ensign from HMAS PERTH (I) to The HMAS PERTH (I) Memorial

World War Two's great survivor dies at 103

ByAshleigh Taylor and Tim Barlass

May 25, 2023 — 4.10pm

FRANK McGOVERN: October 1, 1919 - May 24, 2023

World War Two veteran Frank McGovern, the last survivor of HMAS Perth, has died in Randwick Rehabilitation Hospital aged 103. He was an Able Seaman sunk in Perth by a Japanese convoy in 1942, then spent two years on Thai/Burma railway as a POW. He was sunk again in the Philippine Sea by a US submarine and bombed while working in Kawasaki as a forced labourer.

The true remarkable element of Frank McGovern's wartime experience lies not only in the extraordinary level of endurance he exhibited in his six and a half years of service, three and a half of which were spent in Japanese POW camps, but the number of times in which he narrowly evaded death.



WW2 veteran Frank McGovern at his Randwick home, 2020. CREDIT: LOUISE KENNERLEY
Born in Paddington, he grew up playing cricket and hockey in the back lanes attending the Christian Brothers' School in Edgecliff then the Marist Brothers High School at Darlinghurst. He began looking for his first job just after the Great Depression and started at Winns department store in Oxford Street. He then worked for the board of water supply from 1936 until he enlisted just prior to the outbreak of the Second World War.

In 1939 when, aged nineteen, he and a group of mates decided to enlist in the Naval Reservists, describing his service experience simply as "quite good prior to the war". Initially deployed with the HMAS Westralia for eighteen months, Frank later joined his older brother Vincent, who worked in the engine rooms on the HMAS Perth. The ships were regularly tasked with convoy and patrol duties in the Pacific.



Nineteen-year-old Frank McGovern. CREDIT: FAIRFAX
However, on the night of February 28, 1942, two weeks after the fall of Singapore,
HMAS Perth met its tragic end. Perth and USS Houston, both surviving the Battle of Java the day prior, ventured into the Sunda Strait. Unbeknownst to those aboard, they would soon come into contact with the Japanese Western Invasion Convoy.

Despite an initial engagement, HMAS Perth, vastly outnumbered and with no ammunition remaining, desperately attempted to retreat at full speed. The decision, however, came too late. The first Japanese torpedo to strike HMAS Perth tore through the forward engine room. By the third torpedo, the order came to abandon ship. Frank managed to survive the sinking, however, 357 sailors ultimately perished, among them Frank's brother Vince.

The oil-coated survivors of the wreckage were ordered onto Japanese destroyers. Frank McGovern had officially become a prisoner of war. For the twelve months that followed, McGovern toiled on the Burma railway and was starved, beaten, demoralised. In the camps and on the railway, diseases ravaged the prisoners and death remained everpresent.

By 1944, the order came for prisoners to be transported to the coal mines and factories of Japan. Frank was among the over one thousand Australian and British prisoners forced into the cramped hull of the Rakuyō Maru. For five days, he endured stifling heat, deprived of clean air, with barely enough room to sit, and was given a mere half a cup of water each day. Dysentery soon spread among the cramped prisoners.

In the early morning hours of September 12, 1944, Rakuyō Maru, along with another prisoner transport ship, were struck by American torpedoes. "We were torpedoed going up to Japan by an American submarine. It was an unmarked ship so the sub-mariners didn't know there were POWs on board."



AUSTRALIAN WAR MEMORIAL ART27557

HMAS Perth in the Battle of Sunda Strait. CREDIT: AWM

In one of Australia's worst maritime disasters, 1,559 POWs perished, of which 543 were Australian. Yet in another extraordinary twist of fate, Frank McGovern managed to survive the attack and locate a lifeboat left behind by the Japanese. For three days he and thirty other predominantly Australian soldiers survived in this lifeboat.

"We were in an open boat so we decided to head towards China which was a couple of hundred miles away; we had no food in the boat, very little water."

While some survivors were rescued days later by American submarines, others were reportedly massacred by Japanese machine guns. By the third day, Frank and his crew were ordered at gunpoint to board a Japanese ship. For the second time, Frank McGovern had survived a torpedo attack only to become a prisoner of war.

Aboard the frigate, the recovered prisoners were permitted a handful of rice "which was difficult to eat because we were so dehydrated from being in the open boat." They endured a night-marish voyage, with further submarine attacks before they finally reached Japan. Frank remembers vividly the local people who watched as the prisoners were unloaded in Moji, "some of the fellas were sick with malaria and dysentery, we were in full view of the local people and it wasn't very good. Half of us were half dressed; bits of clothing...some had a small old blanket around us."

WW2 veteran Frank McGovern holding a 1942 HMAS Perth calender, the date of the bombing of the ship is marked. CREDIT: LOUISE KENNERLEY

That night the prisoners were herded onto a train, "all the shutters down, we weren't allowed to look out. We headed there on a thirty-hour trip by train up to Yokohama near Tokyo. It was a cold, wet, miserable day."

At Kawasaki camp in Tokyo, the men endured months of arduous work in the factories until, on the night of March 9, 1945, the United States commenced the deadliest air raid in history. It is a night that Frank remembers vividly. Over the course of 48 hours, 2,000 tonnes of incendiary bombs were dropped over just 16 square miles of Tokyo. Frank McGovern again miraculously managed to survive, despite their camp being reduced to ashes. The prisoners were transferred to another camp.

Mere weeks later as Frank sat beside his close friend Keith Mills, a bomb was dropped directly onto the camp. "There was a bombing raid a few weeks before the war ended, killed thirty of our fellas, including my mate. He was blown up, I was blown up but I got out of it with a fractured spine..."



World War II

Lying in a hospital bed with a broken leg, Frank had one choice to survive the war Frank spent the duration of the night unable to move, surrounded by the dead as the screams of the wounded slowly faded into the night. Finally rescued the following day, he was transported to Shebora hospital, where he remained for days without treatment. He soon noticed that other former prisoners, initially healing from shrapnel wounds to their legs, were suddenly declared dead in the operating theatres. An American working in the hospital warned Frank that Japanese doctors draining the blood of those incapable of walking for the sake of transfusions. With this warning, McGovern, despite his fractured spine, managed to muster the strength to stand and walk at quick pace during an inspection by Japanese guards. This action would again narrowly spare Frank's life as he was ordered to return to camp.

Over seven decades after liberation, Frank still precisely recalls the date when the war ended in the Pacific: August 15, 1945. Despite the lack of information provided, the mood had noticeably shifted in the camp. Food parcels began to be dropped to the emaciated prisoners. Shortly after buses arrived to transport them to the hospital ship, the USS Benevolence, where the men were examined and treated for approximately two weeks. They were subsequently transferred to Manila where they were debriefed, before boarding a plane to Darwin and another to Sydney.

It was a terrific feeling for Frank to return home and be reunited with his parents once more. He visited Keith Mills' parents to inform them about their son and provide some form of comfort. In return he was gifted a photo of the friend that had endured so much by his side. In the aftermath of the war, it took many years for Frank to adjust to being home, confronted with the many painful memories of his wartime experiences.

"I found it difficult at home, as most of our blokes did, because my older brother was on the same ship the Perth and he did not survive it...so that was difficult to come home to."



Frank McGovern aged 92, war veteran and Prisoner of War for three and a half years CREDIT: KATE GERAGHTY

In 2019 he was awarded the Order of Australia for services to veterans and their families. The award recognising Frank's extensive service with the HMAS Perth Association, the HMAS Perth Prisoner of War Association as well as the Coogee Randwick Clovelly RSL sub-branch.



INDONESIAN NAVY LANDING SHIP SUFFERS ONBOARD FIRE; ALL 117 CREW SAFE

By **Baird Maritime**



The Indonesian Navy landing ship KRI Teluk Hading in an undated photo (Photo: Indonesian Navy)

An Indonesian Navy vessel suffered an onboard fire that necessitated the evacuation of its entire crew off Indonesia's Southeast Sulawesi province on Saturday, June 3.

The incident occurred at around 14:00 local time on Saturday when a blaze ignited in the engine room of the landing ship KRI *Teluk Hading* while it was participating in routine operations near the Selyar Islands. Other navy vessels and two Good Samaritan commercial ships diverted to the area shortly afterwards to render assistance. The landing ship's 117-strong crew were later brought aboard a responding rescue tug. No injuries have been reported.

Navy officials said that the crew were all safely evacuated within 30 minutes of the fire igniting and that the landing ship was subsequently towed to the nearest port.

Teluk Hading is the former *Cottbus*, which was operated by East Germany's Volksmarine naval force from 1978 to 1990. The ship was acquired by the Indonesian government in 1993 and was commissioned into Indonesian Navy service the following year.

Navy begins long haul to inactivate second nuclear-powered carrier Nimitz

Meanwhile, the decommissioned Enterprise remains at Newport News Shipbuilding awaiting its final dispos-

al.By JUSTIN KATZ on April 13, 2023 at 11:17 AM



The aircraft carrier USS Nimitz (CVN 68) cruises in the Strait of Juan de Fuca. (U.S. Navy photo by Mass Communication Specialist 2nd Class John Hetherington)

GREEN BAY, Wisc. — The Navy this month began planning the years-long ordeal to defuel and dispose of the nuclear-powered aircraft carrier Nimitz (CVN-68), only the second ship of its kind to undergo that process.

The fiscal 2024 budget request extends the Nimitz's service life by 13 months, from April 2025 to May 2026, a Navy spokes-woman told Breaking Defense. But the disposal process for a massive warship, commissioned in 1975, that has long carried nuclear reactors requires the service to begin planning years in advance.

To do that, the Navy has tapped HII's Newport News Shipbuilding to help establish the requirements, according to a <u>publicly</u> <u>available notice</u> posted last week to the government's contracting website, SAM.gov.

"Our Newport News Shipbuilding team is experienced at inactivating and defueling nuclear-powered aircraft carriers. We look forward to leveraging our expertise and industrial relationships to team with the Navy on preparing for the defueling and inactivation of USS Nimitz (CVN 68)," said HII spokesman Todd Corillo.

As the Navy and HII begin work on how to safely shut down the Nimitz, the former aircraft carrier Enterprise (CVN-65), which was decommissioned back in 2017, is also awaiting its final disposal. That ship is sitting at Newport News Shipbuilding just a few hundred yards away from where the <u>next ship to carry its name</u> is being built.

The process for how the Navy defuels and inactivates the former Enterprise will likely set precedents the service will follow when disposing of the Nimitz and other nuclear-powered aircraft carriers. But all aircraft carriers are not alike. Jamie Koehler, the Navy spokeswoman, told Breaking Defense that while the ships are similar in type, they also contain significant design differences which will be reflected in the disposal process.

"Ex-Enterprise and Nimitz are similar in that they are large, rugged ships containing low levels of various hazardous materials. However, they are of considerably different design, so the approach to inactivation will reflect those differences," she said. "Any disposal options that involve Nimitz will be evaluated to ensure [National Environmental Policy Act] compliance, as is currently being done with ex-Enterprise."

One of the key reasons the disposal process for the Enterprise has taken this long is because it will be the first nuclear-powered aircraft carrier the service has had to defuel and the Pentagon is obligated, under the National Environmental Policy Act, to minimize potential harm to the environment.



Who says water and electricity don't mix?

For today's navies, their radars, weapons, and propulsion depend on it.

The latest step in the process involved the Navy publishing a <u>draft environmental impact statement</u> in August 2022, a document that outlines a handful of options.

The first involves employing a commercial dismantlement facility for non-radiological portions of the ship, while the reactors would be transported to Puget Sound Naval Shipyard "for recycling, construction of eight single reactor compartment packages, and shipment by barge to the Port of Benton near the Department of Energy (DOE) Hanford Site, and via a multiple-wheel, high-capacity transporter to the DOE Hanford Site for disposal," according to the draft impact statement.

The second method is largely the same as the first, except the service would construct "four dual reactor compartment packages" rather than eight. "The packages would be heavier and larger than reactor compartment packages currently transported to the Department of Energy (DOE) Hanford Site under the existing Navy program," the statement adds.

The third alternative, which the Navy indicates is its preferred method, involves contracting with industry for all parts of the disposal, including the reactors. "The Navy is evaluating three locations for commercial dismantlement: the Hampton Roads Metropolitan Area, Virginia; Brownsville, Texas; and Mobile, Alabama," according to the impact statement.

The Navy said it prefers this option because it allows workers at Puget Sound to stay focused on fleet maintenance, rather than diverting their attention to the Enterprise.

In its environmental impact statements, the Navy also routinely includes a "no action alternative," which in this case states the service would effectively have to keep the former Enterprise in port indefinitely and continue to monitor and maintain its nuclear components.

The draft statement was subjected to a period of public comment last year which has now closed. Koehler, the Navy spokeswoman, said the final impact statement is expected to be published by the end of 2023.

Koehler also did not directly address a question about whether the Nimitz would require a separate environmental impact statement, except to say the Navy would comply with NEPA.



The former USS Enterprise (CVN-65) sits in port at Newport News Shipbuilding awaiting final disposal. (Justin Katz/Breaking Defense)

Helping the Australian public to understand the importance of deterrence



20 APRIL 2023By: Stephen Kuper

Australia's future nuclear-powered submarines have been described as the foundation of the nation's deterrencefocused posture. However, it is something the Australian public struggles to understand — it is a key piece in the jigsaw puzzle that is part of our broader shift towards greater deterrence capabilities.

For almost the entirety of our national history, Australia has grappled with the double-edged sword of our geographic isolation, comparative small population, and our corresponding status in a much broader, more competitive world dominated by great powers.

Perhaps by divine providence, this perfect blend of circumstances served to shield the nation and public from a series of existential threats to our national security, prosperity, and stability.
It wasn't until the rampaging forces of Imperial Japan blitzkrieged their way through Southeast Asia and the Pacific that the

Australian public confronted the existential reality of the world, that is: our world is inherently competitive.

Australia embraced a more assertive policy of "Forward Defence" in the immediate decades following the end of the Second World War, which saw the nation's defence and national security posture shift towards a heavy emphasis on regional presence, direct engagement, and deterrence.

In some ways, the Cold War-era policy of "Forward Defence" is the precursor to the Albanese government's still-to-beclearly-articulated policy of "Impactful Projection", set to be formalised as part of the upcoming Defence Strategic Review. The government's renewed focus on deterrence is best encapsulated in the AUKUS trilateral partnership which will see Australia develop and build a fleet of nuclear-powered submarines to serve as the pointy end of the next-generation Australian Defence Force.

Despite broad support from the Australian public for our nuclear submarine ambitions, there still appears to be a disconnect in understanding the rapidly emerging challenges facing Australia in this new era of great power competition and the role deterrence will play in securing Australia's national interests for the Australian community.

Importantly, in this new era of great power competition, deterrence isn't merely confined to the realms of who can field the most nuclear warheads, or who has the most tanks. In changing the rules, wielding "grey zone" conflict against us, adversaries have also provided a path to strengthen our response and provide a more holistic deterrence response.

Anybody who has worked around politics and public policy for long enough knows that any doom and gloom message is bound to fail, so how do we address this knowledge disconnect while also presenting the Australian public with a positive outlook?

The region is changing

There are very few nations as utterly dependent on the unmolested access to the oceans as contemporary Australia is. All of our major exports and inputs, whether key industrial inputs, like liquid fuel, natural gas, iron ore, coal, pharmaceuticals, cars, and other consumer goods are heavily dependent on seaborne trade.

Indeed, according to the Australian Maritime Safety Authority, 99 per cent of our international trade is carried by sea, travelling through key maritime choke points in the Persian Gulf, the Straits of Malacca, Suez Canal, and the hotly contested waterway of the South China Sea.

Yet on the periphery of public consciousness, despite a growing amount of media coverage (even where it is publicly lambasted by former prime ministers) the Australian public still appears to be reluctant to directly engage with and as an extent, enhance their understanding of the new era of great power competition in our immediate region. There is also the question about the level of interest and direct care on the part of the Australian public towards the challenges contemporary Australia faces, when as former Australian high commissioner to the United Kingdom, George Brandis KC states, Australians don't have a lived memory of existential threat to our way of life.

Brandis explains, "The war that followed [World War Two] was the only time that Australia has felt existentially threatened. While we now know from archival research that Japanese policy was not to invade Australia but to isolate it, that was not how it seemed at the time — particularly to those who lived in northern Australia.

"There are few still alive who remember the Pacific War; every generation since, from the Baby Boomers onward, has grown up in a sense of relative security. Even Vietnam, the most serious war in our region which many Australians remember, was not accompanied by widespread fear of communist invasion if South Vietnam fell," Brandis said.

Despite the broad cultural and societal malaise that seems to be ingrained in Australian society, the post-Second World War order upon which contemporary Australia's security, stability and prosperity is built is fraying at the seams. The United States is a broad tail spin of decline characterised by compounding economic crises and a globally coordinated shift away from the US dollar as the global reserve currency, domestic political polarisation and atomisation, combined with a social melancholy and waves of deaths of despair, directly linked to the deindustrialisation of the heart land.

Comparatively in our region alone, both Australia and the United States, as our major strategic benefactor, face an increasingly complex and challenging environment, one which places direct strain on our own capabilities to defend our interests, particularly following decades of underinvestment as a direct result of the post-Cold War peace dividend. This is particularly relevant when analysing the unprecedented economic, political, and military rise of Beijing, particularly across our own region where the influence-peddling campaign is forming a web of soft deterrence, through consensus building, economic "investment" and development of critical infrastructure throughout the region.

Beijing is doubling down on this approach through the largest peacetime military expansion and modernisation in history, resulting in a force that is focused, not just on deterrence through the recapitalisation and modernisation of a nuclear triad, but equally a force that emphasises power projection across the Indo-Pacific.

This is best explained and indeed reinforced by the US Indo-Pacific Commander, Admiral John Aquilino, who recently explained to the US House of Representatives Armed Services Committee, "Conflict in the INDOPACOM area of operations is neither imminent nor inevitable. Nevertheless, we do not have the luxury of time, we must act now to maintain a free and open Indo-Pacific.

"There's a tonne of variables on what might motivate President Xi Jinping to take that action. It's our job to convince him every day, [that] it would be a bad choice ... Beijing publicly claims a preference for peaceful unification over conflict. However, its consistent pressure tactics and coercive behaviour demonstrates a significant disconnect between their words and their deeds ... This larger arsenal could provide the PRC with new options before and during a crisis or conflict to leverage nuclear weapons for coercive purposes, including military provocations against US allies and partners in the region," ADM Aquilino added.

But what can Australia do in the face of these challenges, and how can we bring Australians on the journey?

Getting the public on board with deterrence

Both the United States and China's approach to "hard power"-based deterrence relies on two key factors: the broad-based economic and industrial strength of their economies and the power and capacity of their respective armed forces, which make both these nations, true global powers.

But how does that relate to Australia, after all, as Australians have repeatedly been told, what more could humble, little Australia do? We do, after all, already punch "well above our own weight".

This is a particularly important question to ask in reference to Australia as a nation, because, as explained by <u>Dr Andrew Carr</u> of Australian National University, military deterrence is a relatively novel concept for the nation to grapple with: "Deterrence is very new in the Australian experience. We have been part of a Western coalition for a very long time, but we have never had to do the kind of messaging and communication which is a crucial part of deterrence. There is not a lot of muscle memory in Australia for deterrent discourse."

Going further, how do we sell the Australian public on board?

Doing so requires a compelling narrative that doesn't undersell the challenges we face, but one that equally articulates the opportunities on offer, if we get the balance right.

First and foremost, it is about the bottom line and everyone's bottom line is their wallet and for young Australians in particular, those that will inherit the world and the domestic and geopolitical environment we build today, we're leaving them vulnerable to being coerced and influenced, effectively circumventing any defence acquisition plans.

This is particularly important for young Australians who, like many of their Western counterparts, are facing the uncomfortable reality that they will be the first generation in centuries to not be better off than their predecessors, hardly a deterring factor if your adversaries' populace is uninvested in the future of the order.

To this end, the government has already moved to make the nuclear submarines program a compelling story, particularly on the employment and industrial development front, with the government's media release at the AUKUS announcement stating: "The program will create around 20,000 direct jobs over the next 30 years across industry, the Australian Defence Force, and the Australian public service including trades workers, operators, technicians, engineers, scientists, submariners, and project managers.

"At its peak, building and sustaining nuclear-powered submarines in Australia will create up to 8,500 direct jobs in the industrial workforce."

But more has to be done to enhance not just the direct strategic deterrence capabilities of the Australian Defence Force, but the broad-based deterrence capabilities of the nation in general.

Expanding and enhancing the opportunities available to Australians while building critical economic resilience, and as a result, deterrence to economic coercion, should be the core focus of the government because only when our economy is strong can we ensure that we can deter aggression towards the nation or our interests.

In order to truly build Australia's deterrence capabilities, we need to view the concept of deterrence in a much broader lens than simply defence capabilities, and accordingly, we need to pursue a number of avenues, namely:

- Conventional military capabilities including air, land and sea-based power projection capabilities;
- Strategic deterrence capabilities including but not limited to a nuclear triad, strategic bomber and naval strategic force multipliers; and
- Economic power focused on maintaining strategic industries with a focus on being globally competitive across manufacturing, resource and energy, innovation and research and development.

As a nation, Australia is at a precipice and both the Australian public and the nation's political and strategic leaders need to decide what they want the nation to be: do they want the nation to become an economic, political, and strategic backwater caught between two competing great empires and a growing cluster of periphery great powers? Or does Australia "have a crack" and actively establish itself as a regional great power with all the benefits it entails?

Final thoughts

There seems to be an undercurrent belief that Australia will be facing down any future threat alone, or that our primary strategic benefactor will be there at our beck and call.

As with everything, the truth is somewhere in the middle and the reality is that Australia may have to face down a great power competitor on its own at certain points and be required to win. Accordingly, we need to be able to deter them from seeking to coerce or attack us directly, or our interests, and we need to do so with the full confidence of the Australian people. This can only be achieved by putting ourselves first, after all, the old saying says, "Charity begins at home", and if we don't put our interests first, both those of today and those of tomorrow, how can we expect anyone else to put our interests first? Only a united people, invested in and believing in the promise of the nation, can be a truly effective deterrent and sadly, no shiny pieces of kit can make up for a public that is uninterested and uninvested in the future.

As events continue to unfold throughout the region and China continues to throw its economic, political, and strategic weight around, can Australia afford to remain a secondary power, or does it need to embrace a larger, more independent role in an era of increasing great power competition?



USS Canberra will be commissioned at Fleet Base East in Sydney. This will be the first time a US Navy ship commissioned in another country. (U.S. Navy photo by Mass Communication Specialist 1st Class Mark D. Faram)





How Australian shipbuilders can respond to the DSR

Australia is investing in defence capabilities at an unprecedented scale, and the 2023 Defence Strategic Review (DSR) proves that Australian shipbuilders are at the centre of those capabilities. The goal of this investment is vessels in the water and a naval force ready to support the strategic needs of the nation. Meeting that demand, and specific elements of the DSR, means Australia's shipbuilders must accelerate their processes, adapt to change, and focus on digital shipbuilding. They must do this despite the challenge of ramping up local production and improving fleet operational effectiveness.

Delivering vessels means consuming, converting, managing, and sharing design, engineering, planning, procurement, and production information for each program and each ship. But the nature of these programs means that millions of digital artefacts and documents will originate from outside Australia, often from disparate and disconnected systems.

Success will depend on managing the digital ship (twin) across the whole lifecycle. Achieving that requires rapidly deploying an information management platform that offers a safe transition from external systems, supports consistent, configuration-controlled data, and embraces adaptability and change. At every stage, looking at how to simplify the conversion and translation of digital information efficiently ensures that production and manufacturing can stay on schedule. One example is automating conversion of existing model information into a format that the shipyard can use.

Government's prioritization towards getting ships on the water, and meeting capability requirements through life upgrades later-on, requires having a clear picture of the configuration of ships as they sit in-service. Using a format-agnostic, open, and ship-building-specific product lifecycle management (PLM) system is one strategy that makes that possible. It intrinsically allows information created for ship construction to directly integrate with other business systems and for reuse in downstream in-service support.

Poor information management is behind many shipyard inefficiencies. Legacy fragmented databases, systems, and technology environment pose a massive barrier to the ramp-up required to meet Defence's aggressive goals. Heeding the timelines demanded by this latest investment means looking towards rapidly deployable solutions that integrate with existing systems and solve today's inefficiencies but can be incrementally updated to support future demands.

An integrated platform of platforms equips shipyards to bridge the gap between those fragmented systems throughout the project's lifecycle. The platform of platforms approach leverages data, processes, and workflows stored in other platforms by linking them together without disrupting existing system infrastructure at a shipyard. Combined with the PLM acting as the source of truth, it's possible to build a digital twin in a cohesive way and see the value within months rather than after years of implementation.

Connecting all aspects of the shipbuilding process, from design and engineering to production and maintenance, allows Australian shipbuilders to improve efficiency, reduce costs, and deliver better ships to the Royal Australian Navy. Right now, at these early stages, Australian shippards are positioned to act as digital leaders in global shipbuilding. Most importantly, they will deliv r assets in line with the goals of the DSR – both today and well into the future.

The platform that will allow shipyards to action this approach will be a tightly integrated combination of CAD and PLM that are designed for the Business of Shipbuilding. The entire platform needs to be based on open, accessible technology that can be seamlessly connected to other platforms, processes and tools. SSI has built an Open Shipbuilding Platform consisting of Ship-Constructor and ShipbuildingPLM specifically to address this need. In combination, they provide a platform that acts as the source of truth for entire programs, connects to other platforms in the shipyard, and supports the end-to-end design, engineering, and production of a vessel.

Expanding our amphibious capabilities is great, but they have to be survivable



LAND & AMPHIBIOUS

10 MAY 2023

By: Stephen Kuper

With Army being reshaped to emphasise long-range fires and flexible amphibious operations in the aftermath of the DSR, is the emphasis on lighter vehicles and smaller, littoral craft going to give us the edge we need?

Setting the scene, Prime Minister Anthony Albanese stated at the launch of the DSR, "We confront the most challenging strategic circumstances since the Second World War, both in our region and indeed around the world. That's why we're investing in our capabilities and we're investing, too, in our relationships to build a more secure Australia and a more stable and prosperous region.

"It is the most significant work that's been done since the Second World War, looking in a comprehensive way at what is needed. It demonstrates that in a world where challenges to our national security are always evolving, we cannot fall back on old assumptions." Prime Minister Albanese said.

At the core of the Defence Strategic Review is the broader reorientation of Australia's tactical and strategic focus, away from Coalition-supported counterinsurgency operations in the Middle East or low-intensity, humanitarian interventions across the South Pacific towards a broader focus on peer-level threats and great power competition encapsulated in a "new" conceptualisation of the Indo-Pacific.

This has largely been driven by a recognition of two principle factors, first that: "Australia's strategic circumstances and the risks we face are now radically different. No longer is our alliance partner, the United States, the unipolar leader of the Indo-Pacific. Intense China–United States competition is the defining feature of our region and our time. Major power competition in our region has the potential to threaten our interests, including the potential for conflict. The nature of conflict and threats have also changed."

Second, that while it is a major driver, great power competition, namely that between the United States and China isn't the only source of potential conflict or challenge to Australia's economic, political, and strategic interests across this diverse region, as the Defence Strategic Review states: "Regional countries continue to modernise their military forces. China's military build-up is now the largest and most ambitious of any country since the end of the Second World War. This has occurred alongside significant economic development, benefiting many countries in the Indo-Pacific, including Australia.

"This build-up is occurring without transparency or reassurance to the Indo-Pacific region of China's strategic intent. China's assertion of sovereignty over the South China Sea threatens the global rules-based order in the Indo-Pacific in a way that adversely impacts Australia's national interests. China is also engaged in strategic competition in Australia's near neighbourhood."

Recognising this, the government's major restructuring and modernisation of the Australian Defence Force is all about preparing the various branches to respond to these key challenges, with Army staring down the barrel (no pun intended) of a major reconfiguration.

Are we asking Army to do too much?

As part of this restructuring of the Army, the DSR outlines that the Australian Army must be optimised for "littoral manoeuvre operations by sea, land, and air from Australia, with enhanced long-range fires".

To this end, the DSR recommended the scaling back of the multi-billion-dollar LAND 400 Phase 3 program, with the number of new infantry fighting vehicles more than halved from 450 to 129 — as indicated in the report, those vehicles will provide one mechanised battalion for littoral manoeuvre, training, repair, and attrition stock.

Meanwhile, Army will also receive half the planned self-propelled howitzers initially planned, with the government confirming the cancellation of a second regiment of 30 self-propelled howitzer artillery under LAND 8116 Phase 2 because they do not provide the required range or lethality, according to the review — the first 30 howitzers which are under construction in Geelong by Hanwha will not be cancelled.

However, as part of the cost savings as a result of these "reprioritisations", Army will see an expanded acquisition of the High Mobility Artillery Rocket System (HIMARS) capability and an acceleration of the Precision Strike Missile (PrSM), while littoral manoeuvrability would be supported by the rapid acceleration of the Army's littoral manoeuvre vessels (LMV) including medium and heavy landing craft under LAND 8710 Phases 1 and 2.

With such a significant scaling back of the resources available to Army, are we at risk of placing the nation's first responders under undue pressure, and are we equipping the force to successfully complete the mission?

One has to ask in the case of the IFV program, is simply sticking with a non-amphibious variant of the Lynx or Redback enough to support the Army's amphibious ambitions, or would we be better suited by acquiring both an amphibious version and a solely land-based version to not only enhance Army's close combat survivability, but also expand the industrial offering in light of industry concern?

Increasing survivability should be a focus of amphibious ops

If "littoral manoeuvre" is now the course de jour as outlined in the DSR, I can't help but ask if the proposed structure of the Army is sufficient to meet the tactical and strategic requirements that will be placed upon it — this only becomes a more poignant question when you account for plans to grow the ADF's workforce to 80,000 in the next couple of decades (concerns about the proposed recruitment timeline not withstanding).

To this point, is the proposed scalping of the LAND 400 Phase 3 program the correct course of action, particularly if we're going to place larger numbers of personnel in harm's way through the use of smaller, littoral manoeuvre vessels or when relevant using our large amphibious vessels like HMA Ships *Canberra*, *Adelaide* and *Choules* or even the proposed LMVs? Now you would be forgiven for saying, "I don't recall seeing an amphibious IFV option being presented as part of LAND 400 Phase 3" and to a degree, you would be correct, except in 2019, Rheinmetall did at least publicly float the development of an amphibious variant of the Lynx IFV, alongside two other variants.

Indeed, Rheinmetall's variant was stated as providing a "protected amphibious-variant Lynx which will enhance the amphibious capability and survivability of the Australian Army when deploying from the Canberra Class LHDs and other large amphibious warfare ships".

It should be said that I am not specifically advocating for the Rheinmetall solution and that should Hanwha present a similar solution to fill this blatantly obvious capability gap, then the competing vehicles should be judged on their individual merits and assessed against the requirements established by the Army.

Ultimately, this solution could also serve to provide industry partners with the opportunity to expand their supply proposals to Army, in part making up for the proposed cut back of the planned acquisition.

This capability would serve a similar role to that of the US Marine Corps' venerable AAV-P7/A1, which is now being replaced by the BAE Systems Amphibious Combat Vehicle as their primary vehicle for bringing Marines from ship-to-shore and providing a tactical overmatch against potential adversaries in an amphibious setting.

Such a swimming capability will prove invaluable in the littoral environments of our immediate region and will enable our large hulled amphibious vessels to have greater stand off range, placing them at less risk, while enhancing the tactical advantages afforded to assets like the LMVs by establishing survivable beachheads early in an engagement, allowing for greater follow on mass to be generated.

Surely, such a capability would be preferable for Australian decision makers within the context of the responsibilities identified in the DSR?

Final thoughts

Ultimately, Army like the broader ADF, needs to undergo a broader force structure planning and development process. Simply outlining future acquisitions and trying to mash it together and saying this will fit is not a solution to the very real tactical and strategic challenges we face.

Army in particular will require a major reorganisation to account for the proposed increase in the ADF personnel power and to adequately integrate the suite of new capabilities, however, we can't forget that the primary responsibility of the Army is to close the gap and engage the enemy in a close combat environment across the land and amphibious-littoral environment.

Accordingly, it is important that Army be restructured to account for the new responsibilities without compromising its core mission, because undermining Army's core mission will effectively undermine the core mission of the other branches.

HMS Iron Duke back afloat after upgrade



Picture: Royal Navy.

HMS Iron Duke is afloat again after two years of refitting and upgrading.

The Royal Navy Type 23 frigate has had a longer-than-usual period of life extension work due to the COVID pandemic and her age. More new steel has been fitted to the ship than in any other previous Type 23 refit, the Royal Navy said.

Despite concerns she would be retired, the decision was taken in 2019 to restore her, to ensure there were escorts for the Royal Navy fleet. She was moved to HMNB Devonport for the upgrade. The work is part of a programme to add an extra decade of life to the Navy's 'workhorses', to allow them to serve until their successor Type 26 and Type 31 frigates enter service.

HMS Lancaster returned to the fleet in late 2019, followed by HMS Richmond. HMS Portland has been handed back to the Royal Navy, with HMS Somerset due to follow suit soon. "The capability sustainment for the Type 23s is putting a lot more modern technology on to the platforms," said Commander Jim Ellis from the Surface Flotilla's Devonport Refit Support Programme.

"It's upgrading their equipment and the fabric of the ship as well. It's improving their life span, so basically putting the teeth and the legs back into the Type 23s, to bridge the gap until the Type 26 enters service from 2025 onwards."



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UK SHIPYARD INVESTIGATING POSSIBLE SABOTAGE ON ROYAL NAVY FRIGATE UNDER CONSTRUCTION

By **Baird Maritime** - May 16, 2023



The Royal Navy Type 26 frigate HMS Glasgow under construction at BAE Systems' River Clyde facilities in Scotland (Photo: Royal Navy)

The *BBC* reports that a UK defence shipbuilder has launched an investigation into a possible incident of sabotage targeting a future Royal Navy vessel while it is still under construction. BAE Systems said it has begun an inquiry into "intentional damage" at its facilities in Scoutstoun on Scotland's River Clyde where fitting out is underway on the future HMS *Glasgow*, the lead ship of the Royal Navy's Type 26 or City-class frigates.

Earlier this week, BAE Systems personnel discovered some of the cables on the future *Glasgow* appear to have been "damaged intentionally," a spokesperson for the company said. Over 20,000 cables for various uses such as electrical power distribution and data communication are to be installed on the frigate.

The spokesman clarified that only a "limited number" of cables were identified as having sustained the supposedly intentional damage. Work on the future *Glasgow* has been paused temporarily to allow a full internal investigation to proceed with assistance from suppliers. The investigation also entails inspecting every area of the vessel. BAE Systems also assured that construction has resumed and an assessment will determine the scope of the repairs that need to be completed.





ANAO report critical of Navy's frigate program

By Julian Kerr | Sydney | 16 May 2023

The wellbeing of the \$45 billion Hunter-class anti-submarine frigate program has been called into question with a report by the Australian National Audit Office (ANAO) warning of a further delay in delivery and the likelihood of a significant cost increase.

The report, tabled in Parliament on 10 May, was sufficiently critical of Defence's procurement processes to suggest that "further training and oversight may be required of Defence officials involved in high-level planning and advising on major capital acquisition projects, at all levels".

Contract expenditure to date had not been effective in delivering on project milestones for Sea 5000 Phase 1, and "lack of design maturity" had resulted in a fresh 18-month delay to the project, with the first of the nine Hunter-class vessels intended to replace the RAN's Anzac-class frigates now expected to be delivered in mid-2032 rather than early 2031, the report disclosed. As of 31 March 2023, schedule slippage from originally contracted due dates for remaining key design and productionisation milestones ranged between 17 and at least 31 months.

A separate 18-month delay to the start of construction was agreed with ship designer and constructor BAE Systems Maritime Australia in June 2021, with delivery of the final ship anticipated in 2044. And as of January 2023, Defence's internal estimate of total acquisition costs for the project as a whole was that it was likely to be significantly higher than the \$44.3 billion advised to government at second pass in June 2018", the report stated.

Current efforts by Defence and industry were "unlikely to result in a cost model within the approved budget", the Surface Ships Advisory Committee (SSAC) had advised.

"As of March 2023, while Defence had advised portfolio ministers that the program is under extreme cost pressure, it had not advised government of its revised acquisition cost estimate, on the basis that it is still refining and validating the estimate," the report stated.

The following month, Defence advised the ANAO that it would be inappropriate to provide Government with an updated estimate "when a large amount of uncertainty remains in elements of the estimate, including the BAE Systems Maritime Australia Head Contract for which a final price will not be received until mid-2023".

Reviewing procur

ement history, the audit disclosed that the RAND Corporation had identified the following eight designs for government consideration: Patrol Frigate 4923, Huntington Ingalls Industries (United States); Type 26, BAE (United Kingdom); D650 FREMM, DCNS (France); F590 FREMM, Fincantieri (Italy); Iver Huitfeldt, Odense Maritime Technology (Denmark); JDS Akizuki (Japan); HMAS Hobart, Navantia (Spain); and Type 45 Daring, BAE (United Kingdom).

According to the report, Defence's Capability and Investment Committee had decided in February 2016 that Italy's FREMM multipurpose frigate and Spanish shipbuilder Navantia's modified F-100 were considered the most viable designs and that either the UK's BAE Systems Type 26 or the French variant of the FREMM design should be progressed as a third option for the competitive evaluation activity.

Records of the rationale for the selection by the Defence Secretary (the decision-maker) of the BAE Type 26 design as the third option to be recommended to government had not been retained by Defence, the ANAO said. The BAES proposal, dubbed the Global Combat Ship-Australia, was announced as the program's winner in June 2018.

Defence had advised the government that it had assessed the three tenders against 23 high-level capability requirements and project objectives and the key differentiator between the tenders related to anti-submarine warfare, the audit said. However, the ANAO conc

luded that Defence did not conduct an effective limited tender process for the ship design because it failed to advise Government that Defence officials had not undertaken a value for money assessment of the three competing designs.

Also, sustainment cost estimates had not been prepared for government consideration, and a 10 per cent cost reduction applied

by Defence to tendered building costs valued at \$2.1 billion had not been negotiated with tenderers.

Noting that Defence did not document the basis for this advice, the ANAO reported that the Department's Contestability Division had considered the 10 per cent reduction and presciently noted significant discussion that supported the opposite — "initial cost estimates tend to be overly optimistic resulting in future cost increase.

"The reduction in the total acquisition estimate by this amount is a cost risk to the project and increases the likelihood that during future submissions to government the build cost will increase from this base cost".

The report also disclosed that the SSAC had been asked to review cost, schedule and risk across the Sea 5000 Phase 1 program and provide input to the Defence Strategic Review, which presented its final report to government on 14 February.

Defence had advised in the same month that the SSAC review had not resulted in any changes in project scope, the ANAO stated - although this obviously precluded any conclusions emergingfrom the separate review due by September into the size, structure scope and composition of the RAN's surface combat fleet.

An ANAO recommendation that Defence ensure compliance with the Defence Records Management Policy and statutory recordkeeping requirements over the life of the Hunter- class frigates project, including capturing the rationale for key decisions, maintaining records, and ensuring that records remain accessible over time, appears to have engendered some dissension with the audit body.

While agreeing wi

th the recommendation, Defence pointed out that of the more than 730,000 Hunter-class frigate project documents within its Records Management System, of the thousands of documents identified and requested by the ANAO, less than 10 were unable to be located.

"Defence ensures all procurement advice to Government on major acquisition projects includes the basis and rationale for proposed decisions, including value for money and whole-of-life cost estimates, and contends that this did occur in relation to the Hunter class frigate project", the Department stated.

Subsequent ANAO comment noted, with further examples, that "shortcomings in Defence record-keeping are discussed throughout the report".

Editor's Note: In response to the significant findings in the above ANAO report, the Joint Committee of Public Accounts and Audit (JCPAA) has expanded the scope of its existing inquiry into the Defence Major Projects Report (MPR) to include a detailed examination of Defence's procurement of Hunter Class Frigates, one of the projects included in the MPR.

The Chair of the JCPAA, Julian Hill, said: "This is a deeply concerning report by the Auditor-General into a critically important Defence project. Given the seriousness of the concerns the Committee initiated this inquiry less than 24 hours after the tabling of the report, and has scheduled initial public hearings for Friday 19 May."

The Committee has also invited written submissions by Friday 15 June 2023 and has requested submissions from the contractor, BAE Systems, as well as the British High Commission.

Wallace: HMS Prince of Wales not being mothballed

16th May 2023



Re-

pairs to HMS Prince of Wales will reportedly cost £20m.

HMS Prince of Wales is not being "mothballed", the Defence Secretary has said, after reports of so-called "cannibalisation".

Last August, the £3bn warship <u>broke down off the Isle of Wight as she was leaving Portsmouth for trials in the US</u> and, since then, she has been <u>undergoing repairs</u>, meaning the huge carrier has now spent more time in dry dock than at sea.

Media outlets have reported the ship is undergoing "cannibalisation", a Royal Navy term for when parts or equipment from one ship are taken and used for another Speaking during a session of questions to defence ministers in the Commons, Defence Secretary Ben Wallace insisted the process was "perfectly normal" and the warship would be back in full service by the autumn.

He was responding to SNP MP Douglas Chapman (Dunfermline and West Fife), who said: "HMS Prince of Wales currently lies in Rosyth for repairs, and I hear it's being cannibalised for spare parts. "Will this £3 (billion) asset be back in full operational duties by the end of this year?"

Mr Wallace said: "Yes, by the autumn. And by the way, cannibalisation – it is perfectly normal for ships to take ships' stores from each other. "This is not being cannibalised because somehow the ship is off to be mothballed. This ship is going to be back in full service in autumn."



The 65,000-tonne ship was brought back to Portsmouth for further examination from Babcock before the decision was taken for her to travel to Rosyth (Picture: MOD). The Defence Secretary told the Commons that the Ministry of Defence (MOD) is "examining the liabilities and who should cough up" for the "misalignment" issues with the carrier's propeller shaft.

Inspections by divers and engineers found that the 33-tonne starboard propeller – which is the same weight as 30 Ford Fiesta cars – had malfunctioned, with a coupling that was holding it in place breaking.

In March, a Royal Navy spokesperson said: "We expect HMS Prince of Wales to commence her operational programme as planned in autumn 2023. This will include flying training and trials. "An investigation is under way to establish the cause of the starboard shaft failure and, once complete, ministers will provide an update on the outcome."The operational programme is expected to include exercises with the <u>F-35B Lightning jets</u>.

Austal engaged for \$3.2bn US Navy contract



Austal USA has been awarded a contract for the detail design and construction of up to seven TAGOS 25 Ocean Surveillance Ships for the United States Navy. Photo: US Navy. 19 MAY 2023

By: Robert Dougherty

The United States Navy has announced a contract for seven auxiliary general ocean surveillance ship T-AGOS 25 Class to be manufactured by Austal USA in a deal cumulatively worth US\$3.2 billion.

T-AGOS ships are operated by United States Military Sealift Command and support anti-submarine warfare using passive and active anti-submarine acoustic surveillance.

The 110-metre steel "small waterplane area twin hull" vessels support the Navy's Integrated Undersea Surveillance System by gathering underwater acoustical data using Surveillance Towed-Array Sensor System equipment.

Austal Limited chief executive officer Paddy Gregg said the T-AGOS contract adds to Austal USA's growing portfolio of steel shipbuilding programs and is a further demonstration of the US government's trust in Austal USA's capabilities.

"T-AGOS is a unique auxiliary naval platform that plays an integral role in supporting Navy's anti-submarine warfare mission. Austal USA is honoured to be selected to deliver this critical capability for the Navy, utilising our advanced manufacturing processes, state-of-the-art steel shipbuilding facilities, and our growing team of shipbuilders," he said.

"The T-AGOS contract is a clear acknowledgment of Austal's capabilities in steel naval shipbuilding, that includes the Navy's towing, salvage and rescue (T-ATS) ships, an auxiliary floating drydock medium (AFDM), and the US Coast Guards' offshore patrol cutters.

"These four steel naval shipbuilding projects, and our continuing successful delivery of the Independence-variant littoral combat ship and Spearhead Class Expeditionary Fast Transport programs, are positioning Austal USA exceptionally well to meet the growing demands of the US Navy and Coast Guard," Gregg said.

Prime contractor Austal USA will team with L3Harris Technologies, Noise Control Engineering, TAI Engineering, and Thoma-Sea Marine Constructors to deliver the TAGOS-25 program, from the company's new steel shipbuilding facility in Mobile, Alabama.

Small ships, big effects



Royal Australian Navy Armidale Class Patrol Boats, HMAS Childers and Bathurst, conduct a joint maritime patrol during Operation RESOLUTE on 15 March 2023." Credit: The Australian Department of Defence

By: Duncan MacRae

Opinion: The introduction of a fleet of missile-armed patrol boats to the Royal Australian Navy forms a lethal and agile component of the DSR's strategy of deterrence, writes defence consultant and former naval officer Duncan MacRae.

Recently, I <u>observed</u> that the Australian National Audit Office's (ANAO) latest audit report of the Hunter Class frigate program suggested a possible path of thought for the upcoming review of the Royal Australian Navy's (RAN) surface fleet; a reduction in the overall Hunter fleet (six instead of nine) and a reorientation to a larger fleet of smaller, highly armed crewed and uncrewed platforms. This latest <u>achievement</u> for the Indonesian fleet provides an example of the crewed option. In the KCR-60M, Indonesia has a 60m vessel of approximately 500 tonnes, specifically designed to operate with high lethality throughout the largest archipelago in the world — which just so happens to form a critical component of our geographical defences against a northern threat. On size, the RAN's direct equivalent is the retiring Armidale Class, and the Cape Class patrol boats. The comparison diverges rapidly as you start to consider matters of lethality; KCR-60M – 57mm main gun and 4 x surface-to-surface missiles, either RAN vessel – 25mm main gun (none on the Cape Class) and no missiles.

Of course, the Australian vessels have been designed squarely within a surveillance and border protection context and so their configuration reflects this. The point however is that (re-)introduction to the RAN fleet of vessels of this size, armed with highly lethal guided weapons, should be well within the scope of future force considerations. Both the operational and industrial sustainment infrastructure exists within Australia and a business case for the capability is clear.

Bang for buck, an armed patrol craft in the range considered so far provides a favourable option over all existing major surface combatants in the RAN fleet; \$5 billion per Hunter gives eight anti-ship missiles, the equivalent patrol boat effect can be attained for approximately \$200 million! Assuming a reduction in the Hunter order to six vessels, we are looking at the ability to procure somewhere in the order of 20 vessels. Tactically, that can look like 12-15 vessels darting around our "near North" providing a highly agile and lethal deterrent to anyone having designs on moving a surface fleet through that battlespace.

If we go one step further and incorporate the latent capacity of the Arafura Class ships, we can reasonably assume up-gunned vessels of this size could provide even more firepower per ship; say eight missiles each and multiple air-delivered munitions from embarked UAS. With a fleet of 12 ordered, there is a reasonable force flow of another 6-8 ships enhancing the overall deterrence effort.

To arguments around survivability — patrol boats, and to a lesser degree OPVs, traditionally present a low-value target to both submarines and air-launched weapons alike — an adversary will need to apply a disproportionate amount of surveillance, targeting and firepower against them and would also need to completely restructure their own force design to do so (task groups of destroyers, aircraft carriers, and amphibious ships are uneconomic choices to employ against a dispersed patrol boat threat!). Self-defence systems can be scaled to appropriately reflect this reduced risk.

Critics are likely also to point to concerns over sustainment and persistence, driven largely by range and seakeeping. Such thinking is not without merit however in the case of range in particular, it reflects limits imposed by current operational models revolving heavily around large, well-established port facilities (mostly in Australia, but also Singapore).

Proactive relationship-building with our neighbours, combined with innovative logistics solutions can allow smaller vessels to use the myriad of obscure archipelagic and island ports (both in the Indian and Pacific Oceans) to advantage. Indeed, this approach is likely to also be required by and support the Army's new littoral manoeuvre and strike force structures.

Again, seakeeping concerns aren't entirely unwarranted but the meteorological conditions in and around the archipelago that could perceivably denude the suggested patrol vessel capability aren't significantly overcome by bigger ships or other ADF capabilities; tropical storms hamper guided weapon targeting regardless of launch platform, airborne carriers wouldn't leave the deck and what hinders the blue force, generally hinders the red as well.

The introduction of a fleet of smaller, highly armed vessels to the RAN presents significant benefits, being highly complementary to larger surface units and the strategy of deterrence in line with the DSR. Successful adoption will require understanding, not avoiding risk, and embracing innovation in both the operational art and the capability lifecycle.

Duncan MacRae is a former officer in the Royal Australian Navy and is a consultant at Kiah Consulting.

Government recognition that larger fleet is needed, still leaves questions



By: Stephen Kuper

With the government's DSR identifying the need for a larger, more dispersed fleet to "complement" the long-range and deterrence-focused mission of nuclear-powered submarines, why is there such an emphasis on smaller, more limited vessels?

As an island nation, Australia's sovereignty, security, and prosperity is intrinsically linked to our maritime surrounds and the uncontested and unmolested access to the global maritime commons.

This reality is critically important in the light of mounting regional and global naval build ups and is the driving force behind the nation's pursuit of the trilateral AUKUS agreement which will deliver the nation's nuclear-powered submarine fleet, which has drawn extensive attention and mixed reactions both at home and abroad.

At the core of this renewed emphasis, the long-awaited Defence Strategic Review (DSR) highlights the renewed importance of the nation's maritime security, stating: "Australia's Navy must be optimised for operating Australia's immediate region and for the security of our sea lines of communication and maritime trade."

In order to deliver this, the DSR has emphasised a three-pronged approach, renewing and reinforcing the nation's commitment to the AUKUS trilateral agreement and the nation's pathway to delivering the SSN-AUKUS, nuclear-powered submarines, and, what is described as: "An enhanced lethality surface combatant fleet, that complements a conventionally armed, nuclear-powered submarine fleet, is now essential given our changed strategic circumstances."

This major step change in the thinking of Navy's mission profile, responsibilities, and implications for force structure have been further influenced by the government's plans to field two distinct tiers that are capable of "enhancing Navy's capability in long-range strike (maritime and land), air defence, and anti-submarine warfare requires the acquisition of a contemporary optimal mix of Tier 1 and Tier 2 surface combatants, consistent with a strategy of a larger number of small surface vessels".

However, in order to deliver this desired outcome, the government has initiated yet another "short, sharp" review into the size, composition, and nature of Australia's future surface fleet force structure and the way in which it complements the nation's future nuclear-powered submarine fleet.

To this end, the DSR announced: "We have recommended that the government directs an independent analysis of Navy's surface combatant fleet capability to ensure the fleet's size, structure, and composition complement the capabilities provided by the forthcoming conventionally armed, nuclear-powered submarines. The analysis must assess the capability requirements to meet our current strategic circumstances as outlined in this review. This should include assessment of cost, schedule, risk, and the continuous shipbuilding potential of each option. This examination should be completed by the end of Q3 2023."

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