NAVY LEAGUE OF AUSTRALIA
WESTERN AUSTRALIA

MARCH 2023
Volume 7, Issue 3

DOWN THE VOICEPIPE *do you hear there!*

COMING UP

NLWA Executive meeting 03rd. July 2023 at 1700

HMAS PERTH (I) Executive meeting Saturday 11th. March 2023 at 1000

Facility open each Wednesday morning 0900-1200

HMS DUNCAN
ROYAL NAVY

Navy League of Australia Western Australia Division News update

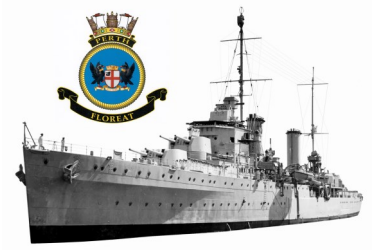
I'm still not sure whether it was a good thing or not but the month of March was very relaxed and as such our Executive Committee didn't have a great deal to do, that was until the afternoon of our NLWA Sundowner on Sunday 19/03 when it was all hands on deck to organise the event. As per usual we held our activity under the patio at the river end of the facility with the Swan River as our impressive backdrop. Again, as we have come to expect, the Sundowner was well attended and all attendees had a great night, made new friends or met up again with old mates, had more than enough to eat and drink and judging by the copious amount of laughter emanating from most tables, were obviously very well entertained. Not only does the Sundowner provide a great excuse for a get together, it affords us the opportunity to interact with a few of our members that we don't see regularly as well as meeting and putting faces to the new people we are pleased to welcome into the fold. It wouldn't be one of our Sundowners without a reasonable RAN presence and this year was no exception. We are always impressed in the fact that some very high ranking officers, both past and present are still prepared to give up some of their free time to attend our functions and interact with our members, which is probably the polite way of saying these officers always have a high element of decorum in answering, no doubt, the same questions asked by ten different people.

We now look towards a rapidly approaching Easter, followed in quick succession by Vigils, Dawn Services and ANZAC Day marches in various locations. I would encourage anyone who can, to attend at least one of these significant activities on the day and for those unable to attend, to take a moment to reflect and pay respect to the current and former ADF and Allied personnel whilst remembering those unfortunate souls who paid the ultimate sacrifice to enable us to live as we do today.

Our weekend getaways have stalled temporarily, mostly due to me being involved in an accident which left me without a vehicle for a few weeks. Thankfully all involved walked away relatively unscathed aside from a couple of expected minor aches and pains. Another car has since been purchased and I look forward to hitting the road with our group in the not too distant future and being able to write a few words and post a few photos of our adventures.

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

Fortnightly business meetings are taking place to further the process of continuing with the final phase of the memorial. Mike and I visited BAE in Henderson recently to discuss their costs to the engineering and production of the steel work. It is very encouraging that a company like BAE have taken great interest in ensuring that the final phase of the project progresses. BAE together with their sponsors, Blue Scope Steel, Vulcan Transport and Eptec have announced that they will donate their time and the construction of the steel work to the project which amounts to $200.000 we are very humbled and appreciative of their efforts. Talks are continuing to reduce the cost of the glass panelling and with our builder. In the meantime we would like to attract further sponsorship to complete the total project. We encourage potential sponsorship to sponsor certain elements of the project so it can be completed to the highest standards. We await certification of the structure and fire services to submit our application of approval to The Town of East Fremantle. As we have worked through the final hiccups in design and costs I am sure that we Can now meet our timeline of the 1st. March 2024 as our official opening date in time for the 82nd. Anniversary of the sinking. Confirmation of this date will be confirmed later in the year once we have completed the final stage. The Foundation since 2017 the commencement of the final stage of the Memorial has raised $750.000 through grants and donations and works in kind. Not a bad effort as the original estimate was $850.000 we have kept a stringent control of the budget and funding and would require another estimated $150.000 to totally finish the project to the highest standard.

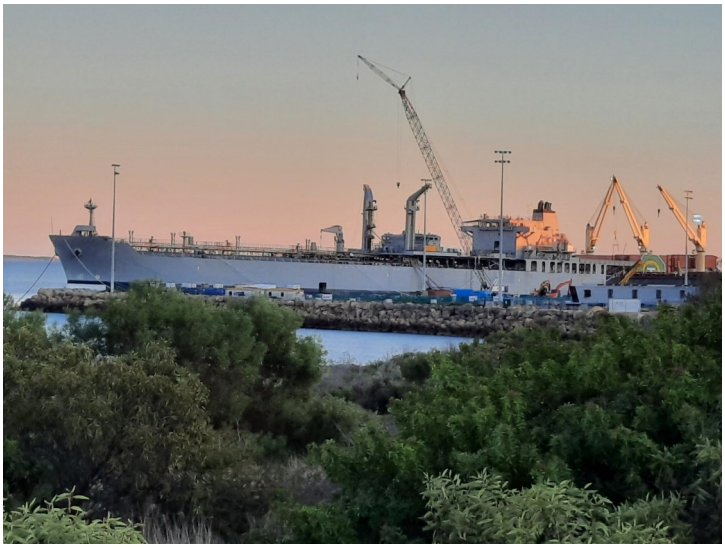
The ships Company of HMAS PERTH (III) gather on the quarter-deck to commemorate the 81st sinking of HMAS PERTH (I) in the Sunda Strait 1st. March 1942

NLWA 2023 ANNUAL SUNDOWNER

SSGT James Maughmer USMC on behalf of the US Marines Association presents CMDR Jim O'Neill ANC RTD with a World War II Marine uniform to be included in the Memorial collection

Brad Barrett (President), CMDR Mile Madarac RAN (CO HMAS STALWART), CAPT Gary Lawton RAN(CO HMAS STIRLING), CMDR Richard Raymond RAN (CO HMAS STUART), CDRE Brett Dowsing RAN RTD, Bob Cullum (Vice President)

Bob Cullum, Jim O'Neill, CMDR Mile Madarac, CAPT Gary Lawton, CMDR Richard Raymond, Brad Barrett and CDRE Brett Dowsing



EX HMAS SIRIUS at Henderson Western Australia in different stages of dismantling

HAVE YOUR SAY

Comments are always welcome together with any article you wish to share If suitable and approved by the editor will be printed.

Construction kicks off on UK's 4th Type 26 frigate HMS Birmingham

UK shipbuilder BAE Systems has started the construction of the Royal Navy's fourth Type 26 frigate HMS Birmingham.

BAE Systems

The steel cut, marking the official start of build on the fourth of eight Type 26 frigates, was carried out at Govan shipyard on 4 April.
Work on the first three Type 26 ships is well under way with HMS Glasgow now at BAE Systems' Scotstoun shipyard to have her complex systems installed, HMS Cardiff currently being assembled and HMS Belfast in its early construction photo

PHOTO: UK's first Type 26 frigate hits the water for the 1st time

HMS Birmingham is the first ship to be constructed under a £4.2bn contract for the remaining five ships secured in November.
"This is yet another significant milestone for the Type 26 programme, supporting thousands of jobs in Scotland and across the wider UK supply chain. Working closely with our industry partners, we are bringing in a cutting-edge class of warships for the Royal Navy, bolstering our maritime capabilities into the coming decades," **Alex Chalk KC**, Minister for Defence Procurement said.

"HMS Birmingham will benefit from a range of investments that will transform our digital and physical infrastructure and consolidate a centre of excellence for shipbuilding skills here in the UK," **Simon Lister**, Managing Director of BAE Systems' Naval Ships business, stated.

The Type 26 frigate is designed for anti-submarine warfare and high-intensity air defence, but can adapt its role quickly to transport high volumes of humanitarian aid and house medical facilities.
The programme is a UK-wide endeavour, with more than 120 British suppliers securing contracts supporting the frigates, including for steering gears in Dunfermline, gas turbines in Filton and maritime LED lighting in Cumbria.
Australia and Canada have selected the Type 26 design, which, together with the UK, provide an anticipated 32-ship programme across the three nations. Sharing build and transition into service lessons across all three programmes will benefit all parties in this multinational effort, BAE Systems concluded.

US Navy commissions littoral combat ship USS Santa Barbara

The US Navy has commissioned the future USS Santa Barbara (LCS 32) as the newest Independence-variant littoral combat ship (LCS).

Austal USA

As informed, the ceremony took place in Port Hueneme, Calif, on 1 April.
LCS 32 is the third United States ship to bear the name Santa Barbara.
The first Santa Barbara was a single-screw steel freighter built in 1916 by William Cramp and Sons of Philadelphia. Ordered and taken over by the Navy in February 1918 from the Atlantic & Pacific Steamship Co. of New York, it was commissioned there in April 15 1918.

The second Santa Barbara, a Kilauea-class ammunition ship, was laid down on December 30, 1966 by the Bethlehem Steel Corp., Sparrows Point, MD, launched on January 23, 1968, and commissioned on July 11, 1970.
The LCS class consists of two variants, the Freedom and the Independence, designed and built by two industry teams.
Austal USA leads the Independence-variant team in Mobile, Al., for LCS 6 and the subsequent even-numbered hulls, including the future USS Santa Barbara. Lockheed Martin leads the Freedom-variant team, the odd-numbered hulls, in Marinette.

Australia's nuclear submarines – costs and timelines

The Virginia-class attack submarine Mississippi in the Atlantic Ocean. The U.S. Navy wants to operate aerial drones launched from underwater from its submarines. (U.S. Navy photo courtesy of General Dynamics Electric Boat)

By Jack Dillich*

The dust is settling from the momentous AUKUS announcement in San Diego. What can we expect in the coming decade?

Introduction

The AUKUS trilateral pact made a big splash in the news recently. Leaders from the United States, United Kingdom and Australia gathered in San Diego, California to announce a plan to provide Australia with the capability and technology to deploy conventionally armed, nuclear-powered submarines. What was divulged was the "optimal pathway" to acquire a small fleet of nuclear-powered boats for the Royal Australian Navy.

The announcement was symbolic of unity among the three allies. It was short on details, however; many of the desired granularities were not forthcoming. These are early days yet and each of the three governments must formulate the practical steps necessary to achieve success.

What follows is an analysis of what is known today, as well as what is likely with respect to Australia's desire to obtain its first nuclear submarines.

The Phases

The AUKUS announcement described a plan that involves three distinct phases.[1,2]

The first phase has already begun and will see an increased presence of US and UK submarines in Australian waters. In addition, the Australian government plans to improve the infrastructure in Perth and Adelaide over the coming four years. Let's call this the "plan and upgrade" phase. By 2027, it is expected that four US nuclear boats and one UK submarine will be permanently deployed from Australia.

The next phase aims to avoid an undersea capability gap that would otherwise eventuate due to the aging Collins class. It involves the acquisition of at least three US nuclear submarines – ostensibly new Virginia class and with US congressional approval pending – with the first one arriving in the early to mid-2030s. The long pole in this tent will undoubtedly be related to naval expertise, not procurement. Hundreds of RAN personnel will have to gain valuable training and experience in the coming years by serving aboard US nuclear boats.

The third phase is very long-term and may be called the "design and build" phase. It involves a collaborative effort to design a follow-on to the UK Astute class. What was once termed the SSN (R) in the UK is now called "SSN AUKUS". These submarines are to be built in the UK and in Australia.

It was announced that the total cost of all three phases of the AUKUS submarine deal may approach $368 billion.[3]This total was a guestimate- it was neither itemized nor budgeted. Unless otherwise stated, all costs that follow are in $AU.

Each successive phase has an escalating cost and a diminishing chance of success.

Phase	Description	Cost	Probability of Success
1	Plan and Upgrade	Low	High
2	Recruit and Train	Medium	Medium
3	Design and Build	High	Low

Cost: Low $ billions Probability Low <20%
Medium $ tens of billions Medium about 50%
High $ hundreds of billions High >80%

Phase 1 – Deployment of US and UK Boats to Australia

HMAS Stirling is the RAN base on the Indian Ocean that is part of Fleet Base West. Situated on the west coast of Australia, it is the largest of the RAN's shore establishments and has a base population of approximately 2,300 service personnel and hundreds of civilians. HMAS *Stirling* provides operational and logistical support to the RAN ships, submarines and aircraft based in WA.

In future years, there will be a permanent, rotational presence of one UK submarine and four US nuclear boats at the base in support of the AUKUS submarine pact. The port facilities will be improved over the coming years. In addition, upgrades are expected in Adelaide. The effort to identify a potential submarine base on the east coast will also begin soon, apparently funded by this phase 1 allocation. As part of the total $368 billion, approximately $9 billion will be spent domestically in coming years on upgrading Australian naval infrastructure, including the naval base HMAS Stirling. The government claims the $9 billion will be cost-neutral over the forward estimates, with $3 billion in cuts to other areas of defence.

Phase 2 – Acquisition of US Boats

The US has plans to increase its production of Virginia class SSNs. To ensure a cadence of at least two boats per year going forward, the US government recently increased funding in a $US 2.4 billion effort last year. There was a recent request for an additional $US 2.2 billion next year. The Americans appear to be serious about their commitment to AUKUS while increasing their number of operational attack submarines above 50.[4]

Under phase 2, Australia plans to purchase at least three – and perhaps up to five – US nuclear submarines. Australia has agreed to pay a fair price for each; a new Virginia class would be about $5 billion. In addition, Australia has agreed to make a proportional contribution to the submarine industrial base in the US to help lift production and maintenance capabilities to offset the loss of those submarines. It was reported that Australia would invest some $4 billion in the American and British submarine industrial bases over the next four years. That includes funds for U.S. workers to help Australia set up its own nascent submarine industrial base in Adelaide and for their Australian counterparts to work in U.S. shipyards across the country.

In the coming decade, the size of the RAN submarine force must more than double. Consider the need to recruit RAN personnel, and to supply candidates to the US nuclear navy training pipeline. Commissioned RAN submarine officers will be distinguished university graduates in STEM. Each must successfully complete over a year of nuclear power training on the east coast of the US, which includes qualification on an actual nuclear prototype. Experience will have to be gained via assignments as division officer (3 years), department head (3 years), executive officer (3 years). It will therefore take at least 12 years to achieve the expertise and qualifications for command. (In the UK submarine force, only a portion of the wardroom is nuclear qualified – it remains to be seen how the RAN may approach this.)

Enlisted candidates, after completing their rating qualifications, will also have to undergo more than a year of nuclear power training. The first Australian nuclear submarine will require several senior enlisted in various ratings. Again, the pipeline extends over about 10-12 years.

How many candidates must enter the pipeline? Let's assume the RAN must operate four nuclear boats by the mid-2030s. A nuclear attack submarine has a complement of at least 12 officers and 100 enlisted. It is therefore estimated that a RAN fleet of four nuclear attack submarines will require a minimum complement of about 50 officers and 400 enlisted. To afford periodic shore assignments, however, the RAN would have to increase these numbers such that there would eventually need to be at least 75 officers and 600 enlisted to operate four boats. Up to half of the enlisted (or 300) would have to be nuclear trained.

These numbers represent a snapshot in time – say the year 2035 – and they are the minimum complement needed to sustain the planned nuclear fleet. Assuming all officers are nuclear trained, and assuming a retention rate of 50%, it can be concluded that at least 150 officers and 600 enlisted will have to enter the nuclear training pipeline in the coming decade or so.

Candidates	Total in Pipeline	Average Annual Input	Retained by 2035
Officers	150	12	75
Enlisted (nuclear)	600	50	300
Enlisted (non-nuclear)	600	50	300
Total	***1350***	***112***	***675***

This will involve a substantial increase in submarine staffing. The RAN currently has over 10,000 permanent, full-time personnel, but only about 500 serve in submarines.
It was recently announced that three RAN officers are expected to graduate from US nuclear power training this year. Upon graduation in June, they will attend submarine school and then be assigned to a nuclear submarine for a tour of duty. This is a propitious start, but many more are needed every year for the coming decade.
The entire phase 2 includes the purchase of up to five US boats, investment in US and UK shipbuilding, and the recruitment and overseas training of hundreds of RAN officers and enlisted. This "recruit and train" phase is expected to cost a total of nearly $59 billion. Using back-of-envelope estimates, this will be about $5 billion per year.

Phase 3 – SSN AUKUS

The Astute class is the UK's latest class of attack submarine. There are six such boats in operation today; the seventh, and last, is due to be commissioned in 2026. The first of this class was commissioned in 2010 and is expected to serve until the late-2030s.
In 2021, prior to AUKUS, the British announced their intention to begin design work for the successor to the Astute class. They referred to this design as the SSN (R). Large contracts were awarded to BAE Systems and Rolls-Royce.
As part of the AUKUS announcement, however, it was announced that the new submarine design would be a joint project between the UK and Australia (and the US to a lesser degree). This phase 3 description has the newly designed boats beginning to replace the Astute class in the Royal Navy in the late 2030s.
This phase, dubbed "design and build", is largely aspirational. The design and development work will continue with the brand-new submarine, now known as the SSN-AUKUS, taking advantage of work the British have already been doing to replace their Astute-class submarines. The new submarine would eventually be adopted by both the UK and Australia, using American combat systems.
This phase is expensive. It is also the sexy aspect of the AUKUS deal, receiving nearly all the attention in Australia. There are prospects of employment for thousands of trade workers, PhDs, and public servants. Because phase 3 looks well beyond the horizon, its details are sketchy.
It appears that the UK would build its future SSN-AUKUS class boats at Barrow-in-Furness, while Australia would construct theirs in South Australia. Although Australia currently lacks the capability to design and construct a nuclear submarine, it is certainly possible that sufficient resources could be brought to bear to make it a reality. I estimate that approximately $300 billion of the estimated $368 billion would be directed at this phase. Some have conjectured that one submarine could be built every few years from the early 2040s through to the late 2050s, with five SSN-AUKUS boats delivered to the Royal Australian Navy by the middle of the 2050s.
How expensive might this be? The current annual defence budget is about $50 billion, which is 2% of Australia's GDP. The government has framed the additional AUKUS costs in terms of an additional percentage of GDP for future estimates (e.g., an additional 0.15%). When the economy is booming, this is an appealing way to look at the cost. When Australia's 30+ years of economic expansion ends, however, very difficult choices will have to be made.
Just how difficult is nuclear submarine construction? Consider the effort by the Americans to build a Virginia class boat. Construction of a single Virginia-class submarine requires about nine million labor hours. This is what is needed from a shipyard that has been doing such work for decades. After years of gains in efficiency, the US Navy estimates that the marginal cost of each new boat is about $US3.5 billion ($5 billion).
A valid and operative question is whether Australia should spend additional resources building its own small fleet of nuclear boats. What benefit would there be from a defence or deterrence perspective? How much less expensive would it be for Australia to simply purchase additional nuclear submarines from the UK or US in the 2040s and beyond?
Many are inclined to believe that government creates wealth and jobs. Many of these people may be tempted to support domestic submarine construction for economic reasons. Phase 3 would not boost the economy or create jobs in aggregate; it would simply reallocate $300 billion in capital.
Again, so much can happen in the coming decades that might change the calculus.[5] Debates about costs and direction will continue. Federal elections every three years, budget considerations, geopolitical changes – there are "many a slip twixt cup and the lip". Phase 3 extends well into the 2040s, and it is very likely to undergo revision in coming years.

Radioactive Waste

Australia currently has no power reactors, and therefore has no need for high level radioactive waste (HLW) disposal capability. Initial reports about the AUKUS pathway suggest that Australia will be responsible for the disposition of spent submarine nuclear fuel.

The US has operated hundreds of naval reactors since the 1950s and has the infrastructure to dispose of used nuclear fuel safely. The US Navy has decommissioned more than 250 naval reactor cores and placed more than 30 metric tons of spent fuel in dry storage in Idaho.[6]

A new Commonwealth agency was created in 2020 to establish a national radioactive waste management facility near Kimba in South Australia. To date, little progress has been evident. The facility, which may open in the early 2030s, is being designed to accept low and intermediate level waste only – not HLW.

Because the Phase 2 nuclear boats will originate from the US, Australia would be wise to continue negotiations regarding the issue of HLW responsibilities. This is especially important if the initial three or more submarines are transferred from America's operational fleet.

Conclusion

At Point Loma in San Diego in March, the US President stated:

"AUKUS has one overriding objective – to enhance the stability of the Indo-Pacific amid rapidly shifting global dynamics."

I believe that the first two phases of the AUKUS agreement have a high probability of success and will enhance stability at a reasonable cost. The permanent presence of five nuclear submarines in Indo-Pacific waters will provide additional deterrence in the coming decade. This will be supplemented with a few of Australia's own nuclear submarines beginning in the mid-to-late 2030s.

We can expect ongoing discussions regarding phase 3, which is an overly ambitious plan that is unlikely to survive in its current form. The project costs and risks are simply too high. Australia has no commercial nuclear industry, and its limited shipbuilding capability has no nuclear experience. Any plan to build nuclear boats in South Australia would require tremendous resources.

Australia is right to feel proud of its domestic capabilities. It is understandable that Australia cherishes its sovereignty and independence, but it must be acknowledged that its comparative advantage is not in nuclear design or submarine construction. There is no doubt that the country is capable. With government backing, Australia could undoubtedly produce its own automobiles as well. The operative question has to do with the wise use of limited national resources, not ability. A fleet of eight or fewer is not large enough to justify the eye-popping expense that would be required to duplicate what already exists overseas.

Phase 3 would involve the creation of a vast array of governmental bureaucracy. It would duplicate much of what already exists in the US and UK – naval nuclear laboratories, capable nuclear shipyards, design authorities, equipment suppliers, training facilities, regulatory headquarters, etc. If it is to proceed, proponents will have to convince the public that the benefits of a nuclear infrastructure in Australia will outweigh the considerable costs.

Let the debate begin. In coming decade, it may become obvious that Australia's undersea capability is best assured by the continued acquisition of nuclear submarines designed and built in the UK or US.

References

Joint Leaders Statement On AUKUS | Prime Minister of Australia (pm.gov.au)

The AUKUS Nuclear-Powered Submarine Pathway | About | Defence

What is the Aukus submarine deal and what does it mean? – the key facts | Aukus | The Guardian

How the US plans to expand its submarine industrial base for AUKUS (defensenews.com)

AUKUS debate: we live in a time of no war and no peace, so we need to educate the public about Australia's strategic position (afr.com)

US Navy says it met Idaho deadline on spent nuclear fuel (navytimes.com)

*__Jack Dillich__ holds an advanced degree in Nuclear Engineering and is a former nuclear submarine officer. He served as an executive with the Australian Nuclear Science and Technology Organisation (ANSTO) and was responsible for the operation of the nation's only nuclear reactor. Mr. Dillich was also Head of the Regulatory Branch at the Australian Radiation Protection and Nuclear Science Agency (ARPANSA).

Urgent repairs underway on one of Australia's newest ships after 'potential mechanical defects' discovered

Exclusive by defence correspondent Andrew Greene
Posted Thu 9 Mar 2023 at 2:55amThursday 9 Mar 2023 at 2:55am

HMAS Supply after leaving Pearl Harbour after navy exercises last year.*(Defence: LSIS Daniel Goodman)*

Engineers are working to repair one of the Royal Australian Navy's newest ships, with Defence investigating "possible mechanical defects" on the Spanish-built HMAS Supply.

Key points:

- Defence says the ship was undergoing routine checks when the potential defect was found
- It says rectifying the issue is its priority and it is working to resolve the problem

Defence insists the ship was not towed at any point

Details of the problems recently discovered on board the navy's replenishment vessel are being kept closely guarded, but the ABC's been told it involves either a large bracket or drive train that is connected to the rotor.

In a statement, the Defence Department told the ABC: "While undergoing routine checks, HMAS Supply has identified potential mechanical defects requiring contractor assistance."

"Rectification of the issues is a priority. Defence is working with Navantia as necessary to resolve the issues," the spokesperson added.

Sources with knowledge of the situation have told the ABC the mechanical problems were discovered by HMAS Supply's crew last week, and the ship is being kept alongside in Cairns as initial assessment and repair work is carried out.

Defence insists that "at no point was HMAS Supply under tow" following the discovery of the mechanical problems, with one figure who was not authorised to comment publicly telling the ABC the ship is still able to operate under its own propulsion.

HMAS Supply is soon expected to head for Sydney's Garden Island naval base for further repair work, but defence figures have rejected suggestions the ship would need to be towed to get there.

The replenishment ship was delivered to Australia in 2020 after being constructed at the Navantia Shipyards in Ferrol, Spain, before being commissioned into service with the RAN the following year.

Australia currently has two Auxiliary Replenishment Vessels (AOR) in service, HMAS Supply (II) and HMAS Stalwart, with both Spanish built ships commissioned in 2021.

According to the Navy, the ships "are intended to carry fuel, dry cargo, water, food, ammunition, equipment and spare parts to provide operational support for the deployed naval or combat forces operating far from the port on the high seas for longer periods".

"In addition to replenishment, the vessels can be used to combat against environmental pollution at sea, provide logistics support for the armed forces, and to support humanitarian and disaster relief (HADR) operations following a natural disaster," it said.

The discovery of mechanical problems on board HMAS Supply come at a sensitive time for Navantia, which is lobbying vocally to construct three new Hobart-class warships in Spain for Australia at a cost of roughly $6 billion.

Navantia's bid for the lucrative work comes amid heightened speculation that the recently completed Defence Strategic Review has recommended a reduction to the Hunter class frigate program being run by British company BAE Systems.

Sale of RNZN patrol vessels boosts local economy

RNZN patrol boat set for Ireland

Two former Royal New Zealand Navy (RNZN) Inshore Patrol Vessels, *Rotoiti* and *Pukaki*, are about to embark on a journey to their new home port in Ireland, leaving an economic boost in their wake. By 9 April the ships will have been craned on board a large sealift vessel at Auckland's Captain Cook Wharf.

A condition of the $42 million sale to the Republic of Ireland Department of Defence, was that work would be undertaken to regenerate and modify the ships to a seaworthiness standard before they left New Zealand. More than fifteen New Zealand businesses spent last year bringing the vessels back to a seagoing state.

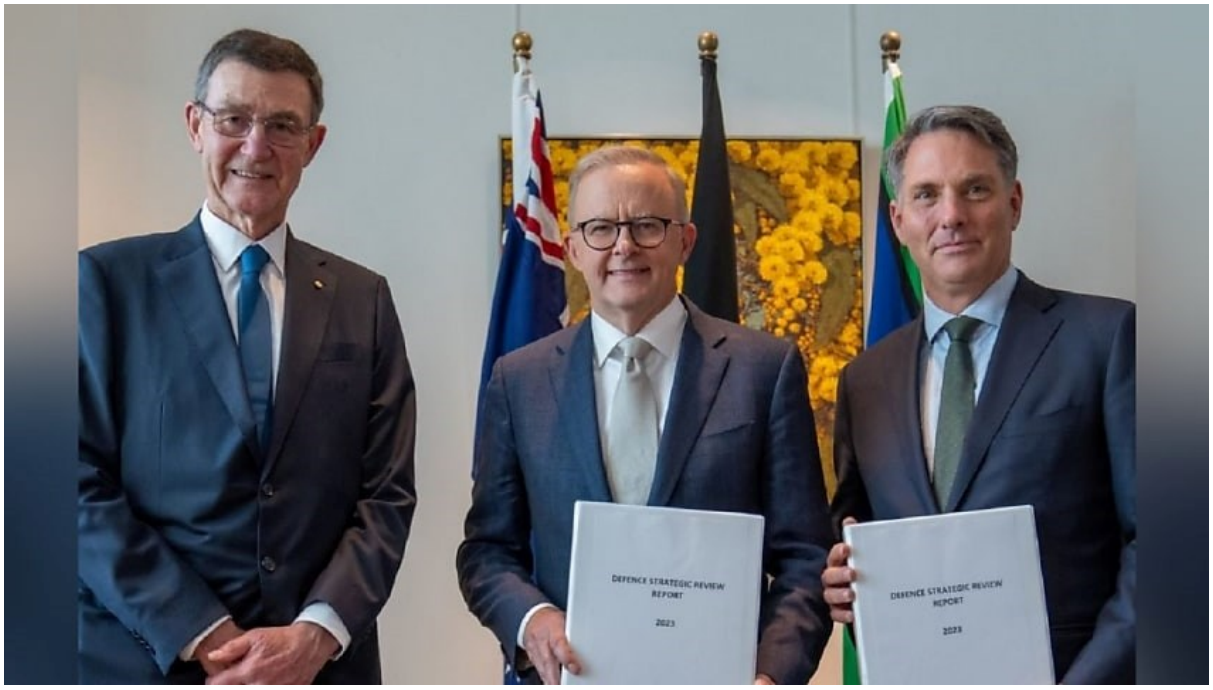
"This work provided a welcome $26 million economic boost for all the local maritime contractors and sub-contractors involved," said Chief of Joint Defence Services, Brigadier Rob Krushka. Along with an overhaul of all major machinery such as main engines, generators, drive shafts, propellers, stabilisers and boat davits, the ships also had a number of system upgrades installed including a new integrated platform management system, maritime communications suite and CCTV system.

Rotoiti and *Pukaki* were commissioned into the RNZN in 2010 to provide fishery protection and conduct border patrols around New Zealand's 15,000 kilometre coastline. However, Chief of Navy, Rear Admiral David Proctor said larger ships in the fleet have gradually taken on these roles. "At the time of their entry into service, the IPVs provided operational capability around our coastline. But now we have a far greater need to project a presence further afield and that's something these ships simply weren't designed to do," said Rear Admiral Proctor.

The two ships were formally decommissioned from the RNZN in October 2019 and for 18 months were berthed at Devonport Naval Base while options for their future were considered. After interest from a number of navies, in March 2022 the decision was made to sell the ships to Ireland's Department of Defence to serve with the Irish Naval Service.

Lieutenant General Sean Clancy, Chief of Staff of the Irish Defence Forces, was looking forward to the arrival of the ships. "The changing face of maritime security in the Irish Sea has highlighted a requirement for a specialist inshore capability in order to protect Irish interests…These vessels will strengthen the ability of the Naval Service to fulfil its role in protecting our national sovereignty."

Preparing to assess the fallout of the Defence Strategic Review



15 MARCH 2023

By: **Stephen Kuper**

Despite the hype still settling following the AUKUS submarine announcement, our focus must shift to preparing to conduct a detailed analysis of the forthcoming Defence Strategic Review, with ANU's honorary professor, Richard Brabin-Smith, presenting an interesting framework for assessing the DSR.

The concept of "impactful projection" has emerged as one of the favoured terms and objectives for the Albanese government in response to the growing pace of the Indo-Pacific's strategic realignment, with Deputy Prime Minister and Defence Minister Richard Marles leveraging the term to prepare the public and the defence ecosystem ahead of the release of the Defence Strategic Review (DSR).

This emphasis on developing Australian "impactful projection" has gained further traction following the government's recent announcements confirming the acquisition of the fifth-generation Naval Strike Missile (NSM) for the Royal Australian Navy's major surface combatants, and the much-anticipated acquisition of the High Mobility Artillery Rocket System (HIMARS) which are much-needed transformational capabilities for the tactical strike capacity of the Australian Defence Force, culminating in the announcement of the roadmap to deliver SSN-AUKUS which will transform the strategic capabilities of the Navy.

In their purist sense, these new acquisitions serve as the linchpin of how the Deputy Prime Minister articulated his concept of "impactful projection" at a talk to the Sydney Institute and the way it will fundamentally reshape the ADF over the coming decades: "I think increasingly we're going to need to think about our defence force in terms of being able to provide the country with impactful projection, impactful projection, meaning an ability to hold an adversary at risk, much further from our shores, across kind of the full spectrum of proportionate response. Now, that is actually a different mindset to what we've probably had before," the Deputy Prime Minister and Defence Minister Richard Marles articulated.

As we turn our focus to the impending release of the Defence Strategic Review, it will become increasingly important to conduct a detailed analysis of the Defence Strategic Review — enter Richard Brabin-Smith, ANU Honorary Professor and former deputy secretary at the Australian Department of Defence, and former Chief Defence Scientist who has identified a framework for conducting this analysis.

Identifying the key factors facing Australia: Shifting focus from 'core force' and warning times

From our earliest days of sovereign strategic planning, Australia has emphasised the importance of "warning times" and establishing and maintaining a "core force" that is capable of delivering the key responses to low-intensity scenarios with a short response time, with higher intensity conflict scenarios naturally expected to have significantly longer "warning times", with these concepts being institutionalised in the 1970s and 1980s as part of the Dibb Review and subsequent Defence of Australia Defence White Paper which has formed the foundation of the nation's strategic posture ever since.

Brabin-Smith articulates this complex web, stating, "Since there's no current summary of the factors that should drive Australia's defence capabilities, I'll start with the most recent one we have: the 1970s concept of a 'core force' and expansion base. Although it's now out of date, the core force still casts a long shadow.

"Adopting this approach allows us to see the extent to which strategic factors have changed since the core force days, and to judge the extent to which the Defence Department and the review have recognised this.

"In brief, the core force and expansion base concept tied together three elements: credible contingencies, an ability to expand the Australian Defence Force, and governance mechanisms that would ensure that any such expansion would be timely. Since then, the context for all three of these elements has changed radically."

Adding further context to this emphasis on a "core force" and critically shifting the emphasis away from the concept of "'warning times", Brabin-Smith details the radical shift expected in the Defence Strategic Review, stating, "First, contingencies. The old idea was that only lesser contingencies were credible in the short term, and higher levels of contingency only in the longer term, after an extended period of strategic deterioration. As is now widely recognised, the rise of China's economic and military strength, together with Beijing's aggressive foreign policies, has rendered that idea invalid.

"This is the most important break with the past: the range of contingencies the ADF might face in the short to medium term include those that could require intensive use of high-technology capabilities.

"When it comes to readiness for such contingencies, it's hard to imagine that a government would accept the need for standing forces capable of handling today's contingencies without at least a degree of preparation. This is because some element of warning would still be expected, and because the additional costs would be significant and best avoided. That implies the need for a clear pathway for Defence to move to higher levels of readiness — for example, through mechanisms to increase levels of training, for both regular and reserve forces."

Critically, Brabin-Smith also stresses the importance declining warning times will have to the capacity for the nation to sustain high-intensity combat operations, particularly those requiring advanced weapons platforms, namely guided munitions and any host of the ADF's next-generation capabilities, be it the F-35 Joint Strike Fighter, HIMARS or the Hobart Class destroyers that will require increasingly complex and large logistic tails to support sustained operations, stating,

"Sustainability also needs attention. Even with a degree of warning, there would be insufficient time for major expansion of the ADF or for a significant increase in the level of sustainability stocks such as spare parts and advanced munitions. This means that action now to increase the ADF's levels of sustainability should command priority."

Force expansion and establishing an analysis framework

As the strategic environment continues to deteriorate and the complexity of the challenges that face Australia continue to evolve, the ADF will be required to undertake increasingly complex, high-intensity operations, potentially against peer competitors.

Doing so will require an increase not just in the complexity of the platforms and capabilities fielded, but also the manpower deployed, to enable the ADF to respond to threats reliably and consistently in our primary sphere of influence.

But what does this radically different ADF look like? With a planned increase of the ADF manpower by around 30 per cent by 2040, the ADF will begin to slowly build muscle, combined with the animosity towards high-intensity combat capabilities like armoured vehicles, tanks, and even some questioning the utility of major surface combatants. We seem to be left with more questions than answers.

It is clear that both the Australian Defence Force and the Australian people will need to become accustomed to a more robust military capability for the nation in the coming decades. However, we have to learn the lessons of the past, from both our own history and that of comparably sized and even great powers, lest we repeat the tragic mistakes that led to Australia's abysmal state of preparedness in the lead-up to the Second World War.

This is highlighted by Brabin-Smith who states, "Now let's look at force expansion. It is needed for two reasons: in the short term to remedy the deficiencies of today's force structure, and in the longer term, given that on its current trajectory, China is likely to continue to modernise and expand its armed forces and to be in a position to expand further to meet future challenges."

Going further, Brabin-Smith details the impact the hollowing out of the Western industrial base has had on nations like Australia and our capacity to prepare and resist not just conflict, but economic, political, and strategic coercion which may precede the outbreak of direct hostilities, stating, "Although force expansion has been an integral part of Defence's conceptual framework for some 50 years, it has received little policy or analytical attention. In addition, what was achievable in the 1970s is now not so clear; as an example, compare today's F-35 joint strike fighter with the Mirage jet fighter of the 1970s. Further and importantly, the defence industrial base of Western democracies is now much smaller than it was at the height of the Cold War. Quite simply, the West's industrial capacity is no longer there. The difficulties of supplying weapon systems and munitions to Ukraine in its defence against Russia illustrate this.

"So, significant and timely force expansion as originally envisaged is not a viable concept today. What alternative kind of force expansion might now be feasible?"

Shifting gears, Brabin-Smith outlines the framework for assessing the forthcoming Defence Strategic Review and its impact on the Australian Defence Force moving forward, stating, "We should assess the Defence Strategic Review in the following terms:

- Does it propose a force structure that will meet the demands of today's potential contingencies?
- Are the priorities and cost implications clear?
- Is there a clear and timely path for improving the readiness and sustainability of the ADF and the other contributors to national security?
- Will proposed modes for force expansion be both timely and effective?
- What steps should be taken to ensure that governance arrangements are capable of meeting contemporary challenges?"

Critically, for Australia to deliver meaningful deterrence and "risk" to a potential adversary, the ADF will need to get closer, before it gets further away, necessitating increased survivability and flexibility for the ADF, particularly the Army, begging the question if the media commentary is to be believed, is the DSR going to cut a much-needed capability at a time we can't afford to cut it?

Navy and Air Force don't escape these challenges either, especially given the limited number of aircraft, ships, and submarines that can be deployed through the region. This is particularly prominent with the ageing Collins Class submarines and the limited number of major surface combatants the Navy can call upon. Equally strained, Air Force has a limited capacity to generate and deploy enough sorties in depth and at range.

While it is hoped that the DSR will identify and respond to this perfect confluence of tactical and strategic geographic and operational realities, more of the same thinking, largely based on the now defunct "Sea-Air Gap" strategy underpinned by a limited expeditionary capability will severely impact the capability of the ADF to truly hold an adversary "at risk".

Lessons for Australia's future strategic planning

There is no doubt that Australia's position and responsibilities in the Indo-Pacific region will depend on the nation's ability to sustain itself economically, strategically and politically in the face of rising regional and global competition. Despite the nation's virtually unrivalled wealth of natural resources, agricultural and industrial potential, there is a lack of a cohesive national security strategy integrating the development of individual, yet complementary public policy strategies to support a more robust Australian role in the region.

While contemporary Australia has been far removed from the harsh realities of conflict, with many generations never enduring the reality of rationing for food, energy, medical supplies or luxury goods, and even fewer within modern Australia understanding the socio-political and economic impact such rationing would have on the now world-leading Australian standard of living.

Enhancing Australia's capacity to act as an independent power, incorporating great power-style strategic economic, diplomatic and military capability serves as a powerful symbol of Australia's sovereignty and evolving responsibilities in supporting and enhancing the security and prosperity of Indo-Pacific Asia, this is particularly well explained by Peter Zeihan, who explains: "A deglobalised world doesn't simply have a different economic geography, it has thousands of different and separate geographies. Economically speaking, the whole was stronger for the inclusion of all its parts. It is where we have gotten our wealth and pace of improvement and speed. Now the parts will be weaker for their separation."

Accordingly, shifting the public discussion and debate away from the default Australian position of "it is all a little too difficult, so let's not bother" will provide unprecedented economic, diplomatic, political and strategic opportunities for the nation.this means for Australian Defence and the supply chain and solutions to assist in this Q&A.

Some experts have claimed Australia's cyber security is not as robust as the other countries in the trilateral security dialogue. Will this potentially deter UK or US defence companies from wanting to share defence tech in Australia?

The AUKUS partnership is intended to promote deeper information sharing and technology sharing so security, in particular data protection, is paramount to the success of the initiative.

Improving our security posture is critical. Without effective, trustworthy capabilities to share regulated and sensitive information, the confidence for UK and US companies to share Defence tech in Australia is greatly compromised.

TWO EX-US NAVY PATROL SHIPS TRANSFERRED TO PHILIPPINES

By **Baird Maritime** - March 30, 2023

Photo: Philippine Navy

Two decommissioned US Navy patrol vessels were formally handed over to the Philippine government in a ceremony in Manama, Bahrain, on Tuesday, March 28.

The Cyclone-class patrol ships USS *Monsoon* and USS *Chinook* will later join their earlier sister ex-USS *Cyclone* in service with the Philippine Navy. Ex-*Cyclone* was renamed BRP *General Mariano Alvarez* following recommissioning into Philippine service in 2004.

Following their delivery to the Philippines in the middle of the second quarter of 2023, the two vessels will undergo reactivation prior to their deployment to littoral and coastal areas.

Monsoon and *Chinook* spent their final years in US service as forward-deployed vessels at Naval Support Activity Bahrain to support US Naval Forces Central Command's operations in the Middle East.

Navy creating unmanned, AI operations hub within US Southern Command

By Megan Eckstein

A MANTAS T-12 unmanned surface vessel (USV), front, operates alongside Royal Bahrain Naval Force fast-attack craft RBNS Abdul Rahman Al-fadel (P22) during exercise New Horizon in the Arabian Gulf, Oct. 26. Exercise New Horizon was U.S. Naval Forces Central Command Task Force 59's first at-sea evolution since its establishment Sept. 9. (U.S. Navy photo by Mass Communication Specialist 2nd Class Dawson Roth)

NATIONAL HARBOR, Maryland — The U.S. Navy will expand its work with unmanned and artificial intelligence tools into U.S. 4th Fleet, following the success of Task Force 59 in the Middle East.

The secretary of the Navy and the chief of naval operations announced the expansion into Central and South America during a presentation at the Navy League's annual Sea Air Space conference Tuesday in National Harbor, Maryland, saying the unmanned capability would make its debut in July at the annual UNITAS exercise.

"The 4th Fleet area of operations provides us with an environment best suited to operationalize the concepts Task Force 59 has worked tirelessly to develop to increase our maritime domain awareness capabilities," Secretary Carlos Del Toro said at the lunchtime speech.

He told attendees that the move would support the 4th Fleet, U.S. Southern Command and the Joint Interagency Task Force South as they seek to crack down on narcotics and human trafficking and what Del Toro called the economic and ecological impact of illegal, unreported and unregulated fishing by China.

CNO Adm. Mike Gilday told reporters after the event that while the Navy stood up a formal task force in U.S. 5th Fleet to experiment with unmanned and AI technologies alongside regional partners, the Navy chose to try a different command structure here. Rather than create a task force underneath 4th Fleet, this effort will instead incorporate unmanned and AI tech — and the vast information that they'll collect and analyze for operators — within existing offices at 4th Fleet, such as intelligence, operations, plans and manpower.

By doing this, he said, the Navy is further "normalizing" these advanced technologies.

Task Force 59, created in September 2021, combined persistent unmanned systems for surveillance, high-speed unmanned systems to respond to problems and AI and machine learning tools to make sense of the significant quantity of data generated by the dozens of unmanned platforms. In just one year, this led to a mesh network capable of putting eyes and ears across most of the 5th Fleet area of operations, allowing manned vessels to more smartly focus their activities based on what the unmanned network was seeing.

A key to the success of Task Force 59 has been the number of inexpensive commercial systems put into the water, plus the number of partner nations willing to join in the effort. The task force is on track to have 100 systems by this summer. A recent exercise, the International Maritime Exercise, included 35 manned ships and 30 unmanned and artificial intelligence systems from more than 50 nations and international organizations.

Del Toro and Gilday did not discuss how many systems or which ones would be in the water this summer for UNITAS, nor did they specify which or how many countries may participate. Gilday said the event would include air and surface platforms but noted "we're still lining those up" and didn't want to name any vendors.

Real-world missions Whereas Task Force 59 has focused on how to best leverage the unmanned and AI systems, Gilday said this effort in 4th Fleet would allow the Navy to learn more even as the systems contribute to real-world missions to help the U.S. and its neighbors. The benign environment is appealing as the Navy looks to expand unmanned operations out of 5th Fleet, with Del Toro and Gilday saying they may start small — focused on just the Caribbean basin, for example — and then increase the scope of the work as 4th Fleet learns more.

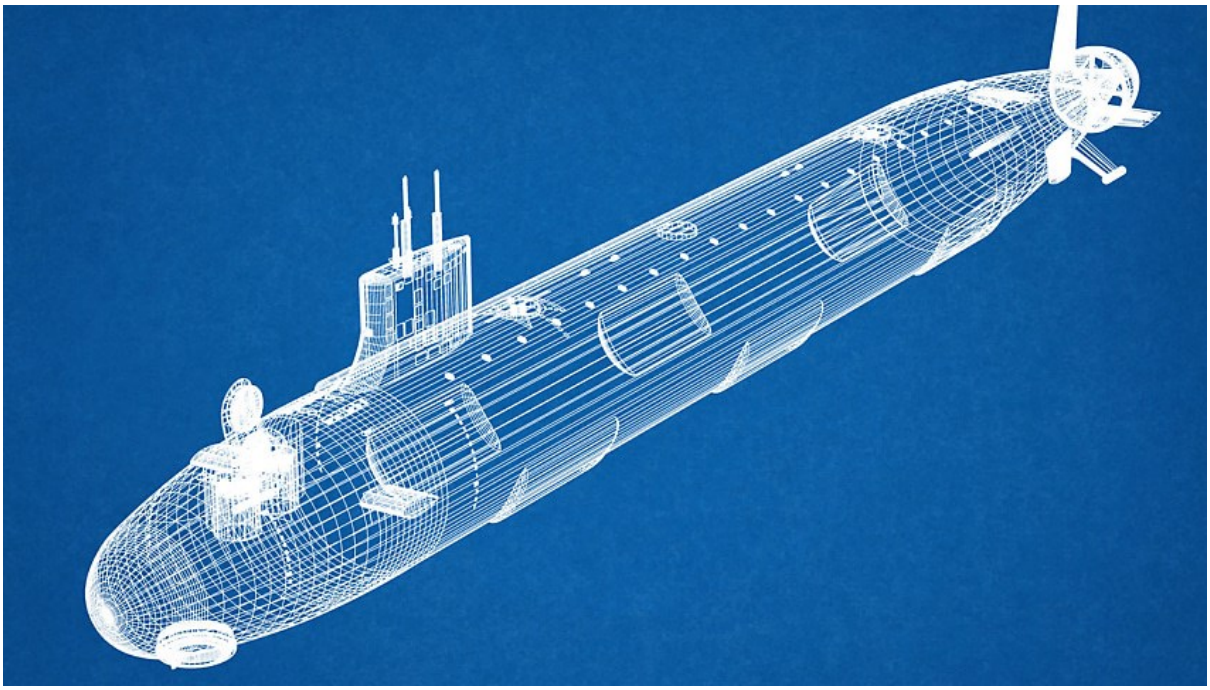
Experiments would also include looking at the concept of a mothership to host short-range unmanned systems. The Navy has in the past used 4th Fleet as a testbed for experimentation with expeditionary fast transport ships, littoral combat ships and more, as the service has sought to work through potential missions and concepts even while providing presence in a fleet that does not have any ships permanently operating there.

Del Toro said Mexico in particular is building up a drone manufacturing capability and that the U.S. Navy has been in touch with its Mexican counterparts to discuss how they could work together on unmanned platforms and in fielding them in 4th Fleet.

About Megan Eckstein

Megan Eckstein is the naval warfare reporter at Defense News. She has covered military news since 2009, with a focus on U.S. Navy and Marine Corps operations, acquisition programs and budgets. She has reported from four geographic fleets and is happiest when she's filing stories from a ship. Megan is a University of Maryland alumna.

Managing information security risk and compliance to compete for AUKUS business



30 MARCH 2023

Promoted by: **archTIS**

While AUKUS will improve Australia's Indo-Pacific capabilities, it also introduces new security regulations and cybersecurity challenges for Defence and the supply chain.

In the past few weeks, AUKUS has gained a lot of attention. The trilateral security partnership between Australia, the United Kingdom, and the United States has been in place since 2021. However, last month AUKUS partners announced an optimal pathway for Australia to acquire a conventionally armed, nuclear-powered submarine capability.

While this is good news for Australia's Indo-Pacific capabilities and defence suppliers looking to win resulting contracts, it also introduces new cybersecurity challenges and regulations. Tony Howell, archTIS Chief Architect offers guidance on what this means for Australian Defence and the supply chain and solutions to assist in this Q&A.

Some experts have claimed Australia's cyber security is not as robust as the other countries in the trilateral security dialogue. Will this potentially deter UK or US defence companies from wanting to share defence tech in Australia?

The AUKUS partnership is intended to promote deeper information sharing and technology sharing so security, in particular data protection, is paramount to the success of the initiative.

Improving our security posture is critical. Without effective, trustworthy capabilities to share regulated and sensitive information, the confidence for UK and US companies to share Defence tech in Australia is greatly compromised.

archTIS has been working across a number of areas of Defence and with key Defence Industry players to address these information security challenges through modern security frameworks and technologies that focus on data-centric capabilities.

With even more state-of-the-art defence technology, including nuclear technology, housed in Australia, do we expect that Australian defence businesses will face an increase in cyber threats?

Without a doubt cyber threats will continue to grow and evolve. We are probably looking at an order-of-magnitude increase in offensive cyber activity directed at Defence and the defence industry.

As we introduce a nuclear dimension to Australia's Defence capabilities (weapons or powered) it is guaranteed to attract the attention of bad actors for many different reasons. Defence, defence suppliers and researchers will be in the crosshairs of new foreign state actors, individuals perpetrating corporate espionage and even those who oppose nuclear capability.

What are the biggest AUKUS challenges from a cybersecurity perspective?

From my perspective the biggest cybersecurity challenges are:

1. The capacity between the AUKUS partner nations to enable secure, rapid and effective information sharing.
2. Traditional Cyber Security frameworks only go so far. We need to adopt a new framework designed to effectively enable secure information exchange.
3. An effective compliance regime to manage the exchange of information is required. U.S. International Traffic in Arms Regulations (ITAR) and other export control frameworks are only part of the problem. Other types of information sharing that need to be addressed include IP, commercial sensitivity, sovereign interests, international obligations, and non-traditional export controlled material.

The utility of data holdings also poses a challenge. There is no value if the data isn't discoverable, available and usable for the purpose it was shared. This extends to the context in which it will be used (e.g., at a shipyard by builders, in Defence for design or for compliance purposes).***How does archTIS help address these security challenges?***

archTIS specializes in developing military-grade information security software. What sets archTIS products apart is our technology foundation based on Attribute Based Access Control (ABAC).

ABAC is a data-centric security model that uses dynamic policies to control who accesses information and under what conditions/context. With ABAC, access and protection policies can be based on any combination of user, environment, and data attributes. This ensures only the right people can access the right information at the right time in accordance with security and compliance guidelines.

Whether you need to store classified information or help with securing sensitive files within your Microsoft applications, archTIS products enable fine-grain zero trust access and data security out of the box.

Kojensi is designed to assist organisations in rapidly meeting complex requirements for sensitive information handling and sharing, including up to TOP SECRET compartmented information. Information custodians can set up secure workspaces and ITAR compartments to share and collaborate on export controlled information, knowing only authorized users will have access to the information with Kojensi's built-in ITAR compliant dissemination controls. Defense Industry organizations consume the SaaS platform as they need, without the substantial costs of implementing new on-premises secured ICT infrastructure. It is also available as an on-premises offering.

NC Protect assists in safeguarding information stored and sharing using Microsoft applications including Microsoft 365, SharePoint Server, and file shares. NC Protect does not interfere with how Microsoft products work, instead it enhances native security with dynamic ABAC policies and unique security trimmings. Importantly, it manages controlled unclassified information (CUI) tagging and document labelling, a mandated capability for ITAR and other U.S. Defence requirements that cannot be met using Microsoft products alone.

Do you expect that AUKUS will change ITAR requirements? How is archTIS ready to respond?

It has already been alluded to in AUKUS announcements, the utility of ITAR to meet expectations around effective management of this alliance will be examined.

AUKUS is creating brand new challenges around the use of nuclear technology, whereby a nuclear state is supplying specific types of nuclear capabilities to a non-nuclear state. I am sure this will generate a number of new compliance obligations and safeguards to meet these needs.

archTIS stands ready to help the Defence industry address current and future requirements. With a technology foundation built on dynamic and flexible ABAC policies, we can support rapidly changing requirements to manage compliance and mitigate information security risks as AUKUS regulations evolve.

BEIJING SEEKING NEW NAVAL ALLIANCES [NAVAL GAZING]

By **Trevor Hollingsbee**

A Russian warship is seen during a joint naval drill between Iran, Russia, and China in the Gulf of Oman, March 15, 2023. (Photo: Islamic Republic of Iran Armed Forces)

The past 20 years have seen the headlong advance of China's People's Liberation Army Navy (PLAN). A rapid drumbeat of warship construction has given the PLAN the capability to form up task forces for long-range operations centred on aircraft carriers and amphibious warfare vessels.

Until recent years, however, China's naval operations have focused largely upon dominating the waters of the South China Sea and the sea areas around Taiwan, although there have been long-range forays, including regular participation in anti-piracy and ant-terrorism operations in the Gulf of Aden. Now, however, the PLAN has emerged as a prime mover in Beijing's efforts to form new alliances in order to rival the United States' domination of the international security domain.

PLAN in the vanguard

The service's role in the vanguard of China's military/diplomatic push to disrupt the established world order was well-illustrated by its participation in two recent multinational exercises, both of which involved naval powers hostile to the US.

Beijing has an increasing focus upon South Africa, which has hugely valuable natural resources, and by far the most powerful military forces in Africa South of the Sahara, notwithstanding the rumours of corruption and inefficiency that continue to swirl around them. China therefore made considerable political capital out of Exercise MOSI-2, held in late February off Durban and Richards Bay. The exercise brought together the PLAN and the Russian and South African navies.

Vessels participating were the guided missile destroyers *Huainan* and *Rizhao* and the support ship *Kekexkihu* of the PLAN, the Russian guided missile destroyer *Admiral Gorshkov* and support vessel *Kama*, as well as the frigate *Mendi* and a Lynx helicopter of the South African Navy. Evolutions included surface shoots and anti-aircraft drills as well as rendering assistance to vessels in simulated distress, although the planned firing of a Russian Zircon hypersonic cruise missile did not take place.

My enemy's enemy is my friend

Furthermore, March saw the PLAN exercise with warships of the Russian Navy and of the Islamic Republic of Iran Navy (IRIN) in the Gulf of Oman. Vessels taking part were the PLAN destroyer *Nanning*, *Admiral Gorshkov*, and the IRIN frigate *Sahand*. One of Iran's most modern and heavily armed indigenously-built warships, *Sahand* is a veteran of a number of long-range deployments.

Two naval helicopters also participated, namely, a PLAN Ka-27 helicopter and an IRIN S-61. Evolutions reportedly included anti-submarine and surface action exercises, as well as officer of the watch manoeuvres.

There is little doubt that in engaging in trilateral exercises with two of America's most implacable foes, Beijing was sending a strong message to Washington.

In a parallel development, China is cultivating growing Middle East naval power Saudi Arabia. The current Saudi fleet consists of some 50 warships, ranging from patrol craft to frigates, while an agreement was recently signed with Madrid for the local construction of a class of Spanish-designed, multi-role combat vessels. Saudi Arabia is also a lead player in the multi-national Operation Sentinel regional maritime security arrangement.

Riyadh's traditionally close relationship with the US has been eroding for some years, while the Kingdom has recently re-established relations with long-term enemy Iran. China, which first conducted joint naval exercises with Saudi Arabia in 2019, has been quick to take advantage of the situation.

According to recent reports, future Saudi Arabian-Chinese naval exercises are planned, and China has offered to build a large drone aircraft carrier for the Saudis. Some analysts also believe that China intends to initiate and lead a rival regional maritime security arrangement to Operation Sentinel.

The scene would therefore seem to be set for Beijing to continue to seek out new naval allies, and to attempt to form up multilateral security structures to rival the western-led alliances that currently dominate international maritime security.

Military unveils new cap badges showing King's cypher

30th March 2023 at 4:33pm
The military's new cap badges reflect the King's cypher and the Tudor Crown which appears in the King's cypher.
Cap badges currently carry the cypher of the late Queen.
The Royal cypher is a monogram-style design for a reigning monarch – it consists of the initials of their name and title and often includes a crown.
King Charles' cypher features the letter 'C' intertwined with the letter 'R' for Rex (Latin for King), with 'III' within the 'R' and the Tudor Crown sitting above.
The Tudor Crown is more rounded than the St Edward's Crown worn by Queen Elizabeth II on her coronation in 1953.

Royal Navy

Petty Officers, Chief Petty Officers, Warrant Officers and Officers on parade for the cornation will bear the Tudor Crown on their caps.
"This will already be a proud moment for our sailors and Royal Marines Commandos, and it is made even more memorable with the addition of the cypher," said Warrant Officer First Class Eddie Wearing, the Royal Navy's State Ceremonial Training Officer.
The King's cypher will appear on cap badges and other adornments to Royal Navy and Royal Marines uniforms, as well as on those of British Army and RAF personnel taking part in the coronation, the Navy said.

Navy cap badges (Picture: Royal Navy).

It's over and out for HMS Enterprise as she completes final voyage after 20 years at sea

Alex Candlin

27th March 2023 at 4:28pm

HMS Enterprise has returned to the harbour at HMNB Portsmouth for the last time as she ends her 20-year service (Picture: HMS Severn).

After 20 years of service, the Royal Navy's HMS Enterprise has returned to the harbour at Portsmouth for the last time before ending her service.

The Devonport-based Echo class multi-role survey vessel arrived back on Monday ahead of being decommissioned.

The crew of HMS Enterprise wrote on social media before their return: "HMS Enterprise will make her final entry into HMNB Portsmouth tomorrow before decommissioning later this week.

"Pennants will be flying, sirens sounded, and water escort supplied by KHM.

"We'll pass Round Tower at around 11:00. Come down and say goodbye to the Starship."

HMS Enterprise has served across the world and conducted oceanographic and hydrographic surveys, ensured safe navigation on and under the water, and acted as a floating base for mine countermeasures activities.

The survey ship was manned by a 50-strong crew, experts in examining and mapping the seafloor.

During her final year of service, the ship and her crew completed a deployment to the *Arctic and sailed within 1,000 miles of the 'top of the world'.*

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Hon Secretary CMDR Jim O'Neill ANC RTD
PO Box 735 Fremantle WA 6959
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