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THE

THE MAGAZINE OF THE NAVY LEAGUE OF AUSTRALIA

FUTURE (ATTACK-CLASS) SUBMARINE

ADDRESSING AUSTRALIA'S STRATEGIC VULNERABILITIES

THE DARDANELLES DEBACLE

OPERATION QUICKSTEP

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The QUAD: Australian, US, Japanese and Indian Navies Exercise MALABAR 2020 (Image Navy). Global Cloud Map as adapted by Mr Alen Mali.

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The Office of The Editor *THE NAVY* Navy League of Australia GPO Box 1719 Sydney, NSW 2001 E-mail to: editorthenavy@hotmail.com All Subscriptions, Membership and Advertising enquiries to: The Hon Secretary Navy League of Australia, NSW Division GPO Box 1719, Sydney NSW 2001

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By Aeneas



HMS IRRESTIBLE abandoned and sinking 18 March 1915.

A SICKLY SEASON AND A BLOODY WAR?

The second issue of The NAVY for 2021 unsurprisingly leads with a paper by Baird and Blake on the Future or Attack-class Submarine - "a Stocktake". This detailed analysis, covered by *The NAVY* over many years, extends from Baird's excoriating examination of Australian Government, APS and ADF in his "Australia Defeat or Juncture" papers, [1, 2]. It makes for salutary reading. The second paper (second prize, 2020 Essay Competition, Professional Category) is by longstanding contributor, Commander Greg Swindon RAN. It examines the potential for considering Non-Combatant Evacuation Operations (NEO) as an "example of maritime power projection". Greg makes some pressing and telling points - of particular strategic importance today, noting ongoing OP Fiji Assist 2021. The third paper is by another longstanding contributor, Captain George Galdorosi USN (Ret.) and examines Australia's strategic vulnerabilities through the lens of the "Department of Home Affairs' [responsibility] to defend the nation's landmass – while the ADF, and especially the RAN, are concerned with those same...maritime interests throughout the region and beyond". Given the fact that the expensively contracted, para-military, uniformed staff of Border Force Command, on the one hand rely significantly on Navy (and ADF) to do the hard yards and, on the other, are often front and square when it comes to taking the lime light (and dollars), this is probably an area warranting further scrutiny. The Force is allegedly yet another unhappy Commonwealth organisation – neither fish; nor foul? The final paper (second prize in the Essay Competition, non-Professional Category) is by longstanding New Zealand NLA member - Murray Dear. Murray considers the Dardanelles Debacle and "the ineffectual, bordering on incompetent, leadership of British senior officers - more capital ships were to be lost at the Dardanelles than in any other theatre during World War I". The theme of "ineffectual and incompetent leadership" strikes a common chord; connecting to Dr Baird's papers on the same.

Many readers will know the Thursday night Navy toast: "to a bloody war or a sickly season". In Navies (and Armies), long periods of peace tend to slow promotion prospects that may only be improved by a winnowing of more senior ranks. The title of this editorial is, by contrast, "a sickly season" – with obvious reference to COVID – potentially leading to and ending in "a bloody war". Hence the question mark. It is necessary to take stock – which is effectively what the 2020 Defence White Paper (a Strategic Update) undertook, as addressed by Paper 1 on the future submarine.



HMS ANTELOP (F-170) Explodes May 24 1982

Historically, within six months of a major war, the British Armed Forces pulled through from all ranks those who could lead and fight wars; from those who could manage and do peace. The two groups are not necessarily incompatible - both need each other. Generally, the ratio is about one war time leader for every 9 peacetime managers. Hence the "10 percenters". [3] It was the same for the Royal Navy and Royal Marines after the Falklands War, where a group of senior officers emerged and went on to Flag Rank, who may not have risen otherwise. [4, 5] Such leaders might not fit comfortably in peacetime organisations focussed on rule; where change is considered as noise, necessarily removed to improve control and fidelity. [6, 7] By and large, Falklands' era RN and RM leaders had faded away by the early 1990s. Since when the RN has been cut and winnowed to the core to pay for the lost wars of Iraq and Afghanistan. While those with leadership (seen as a threat to the orthodoxy), winnowed "voluntarily". [8-10]

Unusually, the Book Review reviews only one book this issue: *China as a Twenty First Century Naval Power*, by Admiral Michael A. McDevitt USN (Ret.) The reviewer concludes:

... a PLAN Officer reading this book in its translated form – and it will have been translated many times over by now – will be digesting and understanding the nuances and ploys to inform their own strategic thinking, and judgments. While the West may rightly criticise the CCP for its excesses; its genesis of COVID-19; its human rights abuses (against the Uighurs and Hong Kong); its expansion into the South China Sea; its environmental and climate desecration; and its encroaches against Taiwan – China, unlike the West, is not standing still. As [my] good friend Dr Kim Kagan once observed, "the Roman Empire began to fail as soon as its idea – its pax – stopped expanding". See [11]

The election of President Joe Biden has not necessarily made the world a safer place. The entrapment of Biden's administration by a body of idealistic human rights and climate change legislation, severely constrains U.S. political freedom of manoeuvre and ability to think – giving China almost free reign. The Idea of the Global West [12] is not contained by any legislative rights or associated technoautocratic commissions, such as the EU or the AHRC. Concomitantly, a growing criticism of the West by developing nations, is its imposition of rights without responsibilities and an understanding of their associated underlying values. Paraphrasing John Stuart Mill, "one cannot impose right or virtue". [13]



Commander Defence COVID-19 Taskforce, RADM Bob Plath, RAN, receives brief from Commander JTG 629.4 Brigadier Graham Goodwin, CSC (image SGT Bill Solomou).

As more directly expressed by Rudyard Kipling (and famously repurposed by Stanley Baldwin):

Power without responsibility – the prerogative of the harlot throughout the ages.

The U.S. is not out of COVID and struggling to recover politically, economically and spiritually. It appears bitterly divided – to the extent that any socio-economic recovery is likely to be long and difficult. The EU has similarly not come out of COVID well, although the post Brexit UK may actually be showing the way with its rapid, efficient and increasingly effective roll-out of the vaccine. Canada appears entwined in bitter identity politics, our cousins in New Zealand to be treading a dangerous path of appeasement; while France is probably seeing the end of the Fifth Republic (1958-2016?) Our own states and industrialists are not without blemish – noting proximity and flirtation with China's One Belt and One Road strategy. The carrot to the CCP's Political Economic Warfare stick.

An assertion was made at [14] that Australia has an "unassumed sovereignty"; lacking awareness of its own identity / culture. This may or may not be the case, as seen in Australia's successful handling, to date, of COVID. The idea of the Global West is clearly not dead. Significantly, from the leading democracies it was Australia who was amongst the first to identify, stand up and push back against the technoauthoritarian nationalism of China / the CCP on COVID, and the media technoautocratic monopolism of Facebook. This has not gone unnoticed. Australia appears increasingly aware of its unique sovereignty and is assuming a lead once more, as it has throughout its history. Change at the Federal and State level is going to occur, post COVID – in response to the sickly season. This will be vital if Australia is going to keep the Idea alive; assist leading global recovery and deterring descent into a bloody war from a sickly season. The core role of all Commonwealth navies throughout the centuries. \blacksquare

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STATEMENT OF POLICY For the maintenance of the Maritime wellbeing of the nation.

The Navy League is intent upon keeping before the Australian people the fact that we are a maritime nation and that a strong Navy and capable maritime industry are elements of our national wellbeing and vital to the freedom of Australia. The League seeks to promote Defence self-reliance by actively supporting defence manufacturing, research, cyberspace, shipping, transport and other relevant industries.

Through geographical necessity Australia's prosperity, strength, and safety depend to a great extent upon the security of the surrounding seas and island areas, and on unrestricted seaborne trade.

The strategic background to Australia's security is changing and in many respects has become much less certain following increasing tensions, particularly in East Asia involving major powers, and in Europe and the Middle East. The League believes that Australia should rapidly increase the capability to defend itself, paying particular attention to maritime defence.

The Navy League:

- Believes Australia can be defended against attack by other than a major maritime power and that the prime requirement of our defence is an evident ability to control the sea and air space around us and to contribute to defending essential lines of sea and air communication with our allies.
- Supports a continuing strong alliance with the US.
- Supports close relationships with all nations in our general area particularly New Zealand, PNG and the South Pacific island States.
- Advocates the acquisition of the most capable modern armaments, surveillance systems and sensors to ensure technological advantage over forces in our general area.
- Advocates a strong deterrent element in the ADF enabling powerful retaliation at significant distances from our shores.
- Believes the ADF must be capable of protecting commercial shipping both within Australian waters and beyond, in conjunction with allies.
- Endorses the development of the capability for the patrol and surveillance of all of Australia's ocean areas, its island territories and the Southern Ocean.
- Advocates Government initiatives for rebuilding an Australian commercial fleet capable of supporting the ADF and the carriage of essential cargoes to and from Australia in times of conflict.
- Notes the Government intention to increase maritime preparedness and gradually increase defence expenditure to 2% of GDP, while recommending that this target should be increased to 3%.
- Urges the strength and capabilities of the Army (including particularly the Army Reserve) and Air Force be enhanced, and the weaponry, intelligence, surveillance, reconnaissance, cyberspace and electronic capabilities of the ADF be increased, including an expansion in its UAV capability.

As to the RAN, the League, while noting vital national peacetime tasks conducted by Navy, including border protection, flag showing/ diplomacy, disaster relief, maritime rescue, hydrography and aid to the civil power:

• Supports the maintenance of a Navy capable of effective action in hostilities and advocates a build-up of the fleet and its afloat support elements to ensure that, in conjunction with the RAAF, this can be sustained against any force which could be deployed in our area of strategic interest.

- Considers that the level of both the offensive and defensive capabilities of the RAN should be strengthened, in particular with a further increase in the number of new proposed replacement frigates and offshore patrol vessels, noting the need to ensure essential fuel and other supplies, and the many other essential maritime tasks.
- Recommends bringing forward the start date of the replacement frigate program to both strengthen the RAN and mitigate the local industry capability gap.
- Recommends the timely replacement and increase in numbers of the current mine-countermeasure force.
- Strongly supports the early acquisition of large, long range and endurance, fast submarines and notes the deterrent value, reliability and huge operational advantages of nuclear powered submarines and their value in training anti-submarine forces.
- The League is concerned at the very long time before the projected 12 new conventional submarines can enter operational service, noting very serious tensions in the NW Pacific involving major maritime powers.
- Recommends very early action to provide a submarine base on the Eastern seaboard.
- Notes the potential combat effectiveness and flexibility of the STOVL version of the Joint Strike Fighter (F35 Lightning II) and supports further examination of its application within the ADF.
- Supports the development of Australia's defence industry, including strong research and design organisations capable of the construction and maintenance of all warships, submarines and support vessels in the Navy's order of battle, and welcomes the Government decision to provide a stable and continuous shipbuilding program.
- Advocates the retention in maintained reserve of operationally capable ships that are required to be paid off for resource or other economic reasons.
- Supports a strong and identifiable Naval Reserve and Australian Navy Cadets organisation.
- Advocates urgent Government research and action to remedy the reported serious naval recruiting and retention problem.

The League:

- Calls for a bipartisan political approach to national defence with a commitment to a steady long-term build-up in Australia's defence capability including the required industrial infrastructure.
- Believes that, given leadership by successive governments, Australia can defend itself in the longer term, within acceptable financial, economic and manpower parameters.



ROK LEE SUN SIN at Fleet Base West, Western Australia, Exercise Pacific Reach 2019 (image LSIS Richard Cordell).

Welcome to another great edition of *The NAVY*—the Magazine of the Navy League of Australia. My thanks goes out to the contributors in this edition, some prizewinners from our Annual Maritime Affairs essay competition, and especially to our editor who works tirelessly to put together a great read for you every quarter without fail. To you the reader too — thanks for your ongoing support. Please consider sharing your old volumes with a friend or even better, sign someone up to a subscription using the form in the centre of this magazine. It will be a welcome gift.

FUTURE SUBMARINES

The future submarine project, the *Attack-class*, has continued to lead in many media platforms of late, with much of the coverage being less than favourable and inaccurate. No doubt you will all be as focussed on this critical aspect of our Defence procurement and shipbuilding processes as we at the Navy League are. Many articles have already been written in The Navy, and elsewhere, on this fundamental pillar of our maritime wellbeing, and in this edition Neil Baird and Robert Blake make a compelling argument for a 'submarine stocktake'.

While the Navy League has long preferred nuclear propulsion for Australia's future submarines, with the associated nuclear power industry, the decision now having been taken and the project well underway, the League is very supportive of Navy and Defence Industry its efforts to bring about what is a very complex and longterm project.

There has been much said derogatorily about the programme with calls for public inquiries, a challenge as to whether we have the right balance of Australian involvement and technology transfer in the project, to suggestions Australia has been conned, and at the extreme, calls for the project to be ditched altogether.

With the government having agreed to review the submarine agreement with the French, it is worth noting the sensible, though less audible, message from the Australian National Audit Office (and highlighted in The Australian newspaper recently) that:

Australia's 12 French Naval Group submarines are on budget and on time [Sheridan, G. The Australian, 9 March 2021].

What we all should remember, too, is that there is a very long way to go on this project and no quick fixes. Australia and our Navy is committed to the project and the Navy League stands firm with Defence's management of this complex and purpose-built submarine, suited to our unique regional and defence needs and, by way of our current social views, necessarily conventionally-powered. The League calls for a bipartisan political approach to this issue (and to all aspects of national defence and industry). We have faced similar criticism before, in the build of the *Collins-class* submarines. Just as the *Collins-class* build delivered, in the face of much discord, world leading conventional submarines, with support, rather than sniping, so too will the current project.

Especially now, our leaders (politically, but especially our thought leaders in the media) could do with being reminded that national defence is no ground for petty political point scoring and uninformed commentary, but that a bipartisan political approach with a steady long-term build-up of our capability and industrial infrastructure will best serve our nation's defence. Be sure to let them know.

THE NAVY LEAGUE OF AUSTRALIA MARITIME AFFAIRS ESSAY COMPETITION

It's on again, the annual maritime affairs essay competition is open for entries until 21 August 2021. With prizes in the professional and non-professional categories and the opportunity to have your work published in a future edition of *The NAVY*, I encourage you to get out the quill and ink (or your medium of choice) and submit your essay in to be in the running for one of the great prizes.

IN THIS ISSUE

In addition to Neil Baird and Robert Blake's hard-hitting paper on the need for an urgent submarine stocktake, which builds on Neil's papers in the previous two volumes, we have three other papers which make for compelling, and international, reading. The first, from Greg Swinden (an historian and RAN Commander) 'Operation Quickstep' examining evacuation operations and naval power projection. The second from our US friend, retired Captain George Galdorisi, on Australia's strategic vulnerabilities. And the third article comes from Murray Dear, across the ditch in New Zealand, writing on 'The Dardanelle's Debacle'.

OUR STATEMENT OF POLICY

Our driving force is set out in our Statement of Policy: for the maintenance of the Maritime wellbeing of the nation. It is right up front in this edition to remind us all of the importance of a strong Navy and capable sovereign maritime industry for Australia as a maritime nation. Now more than ever is time to reflect on whether our policy remains relevant and whether we are meeting it as a nation and a League.

I trust you will enjoy reading this volume and, as always, encourage your feedback.

Happy reading. 🔳



Attack-class Submarine (image NAVAL GROUP).

COMMODORE SAM BATEMAN AM RAN



It was with much sadness that the NLA learned of the death of Commodore Sam Bateman AM RAN in October 2020. Commodore Bateman had been a lifelong member of the NLA and contributor to *The NAVY*, on matters regarding the Law of the Sea, in addition to those concerning the Future Submarine and Australia as a maritime nation. He is twice quoted in Paper 1 this issue (a stocktake on the *Attack-class*), on both maritime law and the future submarine. [1, 2] More recently, *The NAVY* worked with Commodore Bateman to resolve a sensitive publication issue. His understanding, commitment, gravitas and support for the maritime case allowed this matter to be resolved amicably. For which both *The NAVY* and the NLA are most grateful.

Commodore Bateman was born in Cottesloe, WA on 4 May 1938 and joined the Royal Australian Naval College as an Intermediate Entry cadet-midshipman at the age of fifteen, in 1954. Among his class of thirty-two was a future Chief of Naval Staff, Ian MacDougall, two Rear Admirals – Jerry Carwardine and Tony Hunt and four Commodores Max Sulman, Phil Mulcare, Peter Mitchell and Sam Bateman. [3] On retiring from Navy, Commodore Bateman was made a Member of the Order of Australia in recognition of his service. His service, as is often the case amongst "our greats", was arguably just beginning.

Anthony Bergin [4] writes of Commodore Bateman:

[Commodore Bateman] seemingly had the sea in his soul. He was a true giant in the field of the law of the sea, oceans policy and maritime security. He was an intellectual pillar of the maritime security community in Asia.

[He] had a long-held belief that Australians should see themselves as part of a maritime nation and that maritime issues should be a key component of our national strategy. Sam was my mentor and mate for 40 years.

[On retiring Commodore Bateman] was a key player in the formation of the Australian Centre for Maritime Studies and the editor for many years of its journal *Maritime Studies* (now the Australian Journal of Maritime & Ocean Affairs).

He was a member of the Australian National Oceans Advisory Group established to advise the federal government on the implementation of Australia's ocean policy.

He earned his doctorate at the University of New South Wales on a topic we were both passionate about: the strategic and political aspects of the law of the sea in East Asian seas.

The University of Wollongong (UOW) [5] remembered:

It is with sadness that the University of Wollongong (UOW) marks the passing of former founding director of the Australian Centre for Ocean Resources and Security (ANCORS), Professor Sam Bateman AM. Commodore Bateman established the Centre for Maritime Policy in 1994 as a joint venture between the Navy and the UOW. It was renamed the Australian Centre for Ocean Resources and Security (ANCORS) in 2005 and in its 26 years has educated hundreds of naval officers and other maritime professionals, including the current Chief of Navy.

He was a prolific author, writing and editing many books and academic journal articles on maritime strategic issues, particularly focused on the East, South-East and South Asia regions. Professor Bateman's written work will continue to influence scholars in the field for many years to come.

After retiring from the University of Wollongong in 1999, Professor Bateman remained active in academic affairs, beginning what proved to be a long and productive association with the S. Rajaratnam School of International Studies (RSIS) at Nanyang Technological University, Singapore.

He remained in high demand as a conference speaker, media commentator and advisor right up to the time of his passing. His contribution to UOW and ANCORS was celebrated at ANCORS' 25th anniversary dinner in October 2019.

Commodore Bateman had four sea commands. While in HMAS BASS he discovered the wreckage of a missing RAAF *Vultee Vengeance* on a remote stretch of the Arnhem Land coast. He took an interest in updating the 19th Century charts of the area and was awarded the 1964 Shadwell Testimonial Prize (which dates back to 1890) by British Admiralty for the best survey of a coastline or anchorage by a non-hydrographer. [3]

In 1977 Commodore Bateman was given his third sea command, the trial ship for the Australian Mulloka sonar, the frigate HMAS YARRA. Promoted to Captain in June 1980 he served as Director of Naval Force Development and conducted a study on maritime trade. He then joined the Strategic and International Policy (SIP) Division and was involved in the finalisation of the UN Convention of the Law of the Sea (UNCLOS). His final sea command was the destroyer HMAS HOBART which undertook a deployment to Canada and the US West coast for the Royal Canadian Navy's 75th Anniversary Review. [3]

Commodore Bateman was both a specialist and a generalist, able to understand and apply his love of the sea and seafaring in the interests of Defence, Navy and maritime matters on both a local and global scale. From chart-making to UNCLOS; academia to teaching. Commodore Sam Bateman is survived by his wife Lois, son Captain Simon Bateman RAN and daughters Emma and Sarah and their children.

We Will Remember

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FUTURE (ATTACK-CLASS) SUBMARINE - A STOCKTAKE

By Neil Baird and Robert C. Blake

This paper examines the Future / Attack-Class Submarine project through the lenses of papers published in The NAVY; commencing with Mr John Strang's (AO) seminal papers of 2015 and 2016 [1, 2], through to Captain Chris Skinner's (RAN, Ret.) insightful paper on a Nuclear Power Roadmap[®] [3] and incorporating other work by: Joiner [4-7], Gary Johnston & Jon Stanford (Insight Economics) [8, 9], Admiral Briggs (AO RAN Rtd.) [10, 11], ANSON [12], Blake [13], and Baird [14, 15], in addition to other publications and recent papers. [16] :

EXECUTIVE SUMMARY

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The future of submarines in the RAN appears to have been plotted for several decades presuming, of course, that the best laid plans are not interrupted by war or other catastrophe. Coming decades will see many changes in submarine technology and the tactical environment in which they will operate if the past century is anything to go by. [16]

If the 2035 strategic context painted in the 2016 Defence White Paper (DWP) is upon us, today - as suggested in the 2020 DWP - then Australia is out of time. Deterrence is based also upon competency and the capacity and capability of the Industrial base to respond. The submarine force is the tip of Australia's deterrence capability. The Attack-class submarine being built by NAVAL GROUP, may be an excellent submarine - but it will arrive too late. The political decision to discard the choice of the Japanese Soryu-class submarine - even redesigned - was fundamentally flawed.

Recent papers by Dr Baird [14, 15] suggest that "current Government structures - controlling from the centre through the Prime Minister & Cabinet Office [PM&C] populated by Management Consultancies that subsumes also the National Security Council - cannot deliver". Representation is needed at all levels – including the restoration of a political Naval Secretary and reengagement at local, state levels. As exhibited during COVID. The promotion of Andrew Hastie to Assistant Minister for Defence appears to have strengthened the Prime Minister's hand. Hastie should be the Minister. Similar ministerial leadership of DFAT is required if any headway is to be made.

Australia has to ask itself "what would it be doing if it were at war", and then do it. Waiting fifteen years for its first submarine is patently a strategic nonsense, just as it was in 2018 or 2016. [15] This is not the fault of NAVAL GROUP or LMA - or necessarily the Strategic Partnering Agreement (SPA), which is a symptom rather than cause - but the Commonwealth. Specifically, the way politicians have behaved and the lack of competency and, at times, integrity exhibited - including by Defence (APS and ADF). It is indeed an unhappy state of affairs.

John Strang and John Jeremy [2] [17] both advocated alternative submarine designs - based, in part, on the Versatile Modular Systems (VMS) concept [12] and the need to adapt current industry-thinking to mobilise ship / submarine building; applying modularised designs. [6] Including heavy lift and mother-ship



2020 Defence White Paper - Strategic Update.

technologies, to take the submarine force forward, rapidly. This should not require the uptake of nuclear technologies - but requires urgent investigation with non-Defence industries. In other words, not those part of the cosy Canberra Political Military Industry Consultancy Complex. This can be done with what Australia has, today.

There is an urgent need to revisit the Soryu-class submarine option, as a stop gap so that the ageing *Collins-class* can be replaced in the next eight years, at the latest. That will be a huge challenge to Navy, ADF and the Diplomatic Corps - but is the only way in which Australia may get a creditable submarine in the time available. Some are advocating the Swedish submarine option, which may have made sense in 2016 but no longer does so. The emphasis has to be on thinking, interoperating, building and fighting (when necessary) with regional allies, such as Japan. Upon whom we have to rely in uncertain times, when logistic supply chains will be threatened.



JS SORYU (SSG501), image JMSDF.



Attack-class submarine (Image NAVAL GROUP).

Although the authors are not in full accord (noting recent German / EU positioning with regard to Russia and China), a short-term fix might include the purchase (at \$15.6B) of a dozen small German or Korean AIS, shallow water submarines. These would be ideally deployed to our close northern waters, much of it shallower than 200 metres. A similar number of the largest, most capable of the new Boeing UUVs should be considered at the same time. The total cost of such a UUV purchase would not exceed the (original) price of one *Attack-class* submarine (about \$4B).

Given the above, the only way in which the *Attack-class* submarine ever made sense was as a nuclear-powered (SSN) boat. The Roadmap[®] and all other deliverables point to this being the case, as advocated by both Peter Briggs and Christopher Skinner. [3, 11] These two highly experienced, retired Navy officers, who have built and led complex build programmes make eminent sense. A parallel activity to maintain the *Attack-class* build as an SSN programme – as suggested by Christopher Skinner's Roadmap[®] – remains valid.

INTRODUCTION

The advent of COVID, in addition to the challenges now being posed to Australia and the Global Rules Based order (specifically in the South China Sea, Hong Kong and Taiwan) by China (and the CCP), and the review currently being undertaken by Andrew Hastie (Assistant Minister of Defence) on behalf of the Prime Minister, mean that the submarine issue remains critical. The 2020 Defence White Paper (DWP), addressing the 2016 DWP, concluded that the strategic context of the "mid-2030s" is on us, today. In other words, Australia does not have fifteen years to wait for its first "new" submarine. Neither can the *Collins-class* be extended safely to operate effectively beyond 2035, even if it remains a highly viable and effective submarine, today.

There is a major risk of a capability gap in the 2030s. [3] This constituted a clear danger at the time the government announced its decision on the FSM in April 2016 – since when Australia's strategic circumstances have deteriorated further. [8] As Paul Dibb and Richard Brabin-Smith pointed out in their [2017] report [18], threats to Australia are increasing and we can no longer rely on having the cushion of a lengthy 'warning time' as a prelude to any attack. [4] Additional submarine capability is required urgently. Before committing to a life extension for Collins, the government should undertake a review of Australia's future capability requirements for its submarine force as a matter of urgency. [9]

The sensible course in 2015/16, would have been for Malcom Turnbull to adopt the proposal taken forward by Tony Abbott to acquire the Japanese *Soryu-class* submarines – if absolutely necessary building the last six in Australia. This was the only way then and today, that Australia stood a fighting chance of having six modern submarines to replace the *Collins-class* by the late 2020s. Despite the damage done by Turnbull and the face lost by Japan – where some senior JMSDF officers opposed the transfer of this technology to Australia at the time – this decision needs revisiting.

SYNOPSIS

John Strang [1] wrote in 2015: in the course of defining Australia's defence acquisition programme to replace its ageing *Collins-class* submarines, we risk repeating mistakes of the past. Replacement without foresight could be more dangerous than no replacement at all. A new government Defence White Paper (DWP 2016), expected to appear at the same time as this article [went] to print, reiterated a major tenet of a previous 2009 White Paper – that is, recommend that the Navy acquire 12 new submarines. [19, 20].

The decision-making process on the new submarines needs to be guided by one overarching research question:

How can Australia best protect its country's sovereignty? [1]

To adequately address this key dimension, [Australia] should ensure that the final decision is not made in isolation from the broader issue of contributing to the overall development of our island-continent nation. The challenge goes well beyond the choice of a new submarine as a trophy item that works at least moderately well over the long-term. [1]

The debate on the merits of nuclear-powered submarines for Australia is long overdue. The advantages of nuclear-powered propulsion can be summarised briefly: it would extend the distances Australia's submarines can traverse, thereby enhancing our nation's capacity to be a major contributor to the maintenance of peace in the Indo-Asia-Pacific region, and generate substantial spin-off benefits for the economy – and not just in defence-related industries. [1]

Former RAND corporation executive, Edward W. Merrow [21], with experience in evaluating and planning large and complex megaprojects, such as dams, drilling platforms and chemical plants identified, among the underlying factors contributing to cost blowouts and long unforeseen delays, such things:

- as lack of accountability;
- poor teamwork;
- an excessive focus on the short-term, and;
- a reluctance to utilise the best available technical expertise.

The Navy League was also aware of a survey conducted [in 2013] of Australian Infrastructure by the independent business management consultants, Caravel. [1] It found that almost half Australia's megaprojects failed to meet their forecast costs, completion deadlines and standards of quality, stating:

It appears that the delivery of Project Governance in Australia is generally highly dysfunctional. [22]

In his second paper, Strang [2] commented: Australia has only a limited time available in which to get its defence spending priorities right and ensure Australia's future maritime capabilities.

- Whichever submarine option Australia takes, the reality is that any successor to *Collins-class* should not merely be equal to the range of 12,000 nautical miles, but needs to exceed that capability, and have the reach [up to 16,000nm] to encompass both India-Asia-Pacific requirements for Australian interests and needs in the Great Southern Ocean.
- How Australia goes about Defence procurement will depend very much on the people involved in the decision-making process. Many knowledgeable commentators have pointed to a lack of overall vision and a paucity of knowledge of what is at stake.

Retired submarine engineer Commodore Paul Greenfield AM RAN (Ret.) recalled attending a Royal United Services Institute (RUSI)'s Submarine Summit in late March (2015), where, he observed, *inter alia*, "much of the engineering and technological know-how for the Collins project has already been lost...and there is also no defence industry policy, nor even an overriding strategic industry policy.' [23]

Lack of technical understanding in the field of Defence can lead to expensive mistakes, as a leading U.S. Defense think-tank has found: 'over the past few decades, advances in electronic sensors, communications technology, and guided weapons may have fundamentally transformed the nature of air combat.' [24] Australia's then chief defence scientist Dr Alex Zelinsky (subsequently demoted to a two-star head of group rather than an organisation, so as not to sit alongside fellow chiefs) expressed concern (quoted by Durrant) that:

Australia's Defence Department has become top heavy and that decision-making processes are not robust and ... becoming cumbersome: decisions that are being made must be defensible from a technical, financial and a strategic point of view and this is where they want to strengthen that process up...the voice of engineers deserve to be heard more loudly at the table where decisions are being made. [23]

THE PRICE OF SOVEREIGN CAPABILITY

In conclusion, Strang stated:

Above all else, it is our national sovereignty that we are working to protect. Nothing should be allowed to obscure that one guiding light.



Russian Navy Semi-submersible heavylift ship Transshelf carrying Two Russian Project-971 Schuka-B SSN submarines for trial upgrades.

That is the task before us, as Australia negotiates the next essential twelve months, including Federal election [2016] and maintains the momentum necessary to sustain Australian ship and submarine build programmes. [2]

Writing in 2016, Joiner et al. [5] considered different procurement models applying MODAF [25], DODAF [26] and RADERTM (an *Agile* [27] based acquisition framework). The paper considered three procurement models, it called RADER 1, RADER 2, and RADER 3; concluding, *inter alia*:

Considered from the standpoint of the politician or the busy policy-maker wishing to submit costly acquisition proposals through hard pressed bureaucratic processes and busy Ministers, the traditional acquisition method (RADER 3) has certain attractions. An attractiveness based largely on deferring costs by 5-10 years and well outside current 3-year Federal parliamentary terms; transferring risk to the project / programme rather than to politicians and bureaucracies...until acquisition risks begin to emerge later in the programme life.

RADER 2 (by incrementally and spirally procuring in separate, staggered builds comprising three batches of 4 submarines each) superficially contains some of the benefits of RADER 3 and RADER 1. On the one hand, it defers some of the spending decisions to later in the project life (although not as dramatically as for RADER 3); on the other hand, it achieves useful risk buffering. The net benefits of this type of acquisition appear marginal when compared to either RADER 1 or RADER 3. Early political commitment is still required and the gain in terms of reaching the Initial Operating Capability (IOC (80%)) is only marginal, 23 as opposed to 25 years for RADER 3. In many respects, RADER 2 represents the worst of both worlds – which (in government / procurement circles) can often become the most preferred, default political-bureaucratic compromise solution.

RADER 1 contains the least management, engineering, technical, financial and scientific risk and achieves a 67% risk buffering and early 80% / IOC level within 17 years of project start time, when 6 submarines may be commissioned. However, wriggle-room is much reduced and politicians / the political-bureaucratic process is less likely to be able to deflect blame or criticism should things go wrong. Equally, the opportunity for sharing in downstream success (many years after individuals have left office) will be limited. Consequently, politicians and bureaucrats may be less identified as being contributors to successful project



HMA Submarines COLLINS, FARNCOMB, DECHAINEUX, and SHEEAN (VC), Cockburn Sound 2019, Image LEUT Chris Prescott.

delivery. Ultimately, RADER 1 acquisition is based upon a mature and collegiate decision making and taking style that looks to benefit the Commonwealth as a whole, rather than narrower, near-term political, fiscal, individual, career and single-Service considerations.

Detailed analysis of RADERTM modelling prepared for *Insight Economics* [9] suggested, in 2016, that there was "high likelihood of a cost blow-out of up to \$90 Billion" – aligning to RADER 2 & 3. [6, 7, 13] It has been claimed that Defence knew this to be the case, as early as 2015. [28] Blake [13], noting detailed analysis of Versatile Modular System designs [29], suggested:

The *Attack-class* submarine applying the Cost and Crew per BME Model, [at 4500 tonnes] would be forecast to have a crew of about 57 (it is declared at 60), and a cost of about \$1.3B per submarine – depending on exchange rates. The model was for an SSN design, and risk has been taken to redesign with conventional propulsion – as advised against by, amongst others Rear Admiral Peter Briggs RAN (Rtd.), in *The NAVY* [10].

The question surrounding the costs of the *Attack-class* submarine is "why the \$50B build costs, when twelve perfectly reasonable submarines could be bought off-the shelf for \$12-16B". The answer, is that the delta between \$16B and \$50B - \$34B - represents the "Price of Admiralty". [30] It is the sovereign capability and achieving the necessary knowledge transfer – which Australia will need to pay, build, and fight for – so that the next generation (or indeed later batches of the *Attack-class*) of RAN submarines are Australian submarines: designed, built and sustained in Australia.

Taking into account the comparison with the larger *Astute-class* nuclear powered submarines and the need to build in Australia, \$50B for twelve submarines, \$4.16B per submarine, was considered "about right". [6, 7] Subsequently:

Defence told Senate estimates [in 2020] that the cost of the 12 *Attack-class* boats in 2016-17 dollars was unchanged at \$50bn. But the "out-turned" cost of the French-designed boats — the cost when the money will be spent — is now estimated at \$89.7B... [And] it doesn't include the whole-of-life cost of about \$145B of sustaining the boats...

- "The government originally promised the future submarines would be delivered from the mid-2020s at a cost of \$50bn," [Opposition Defence spokesperson Richard Marles] told *The Australian*. [31]
- "Now they won't start building the first submarine for another four years, and they come with a \$90bn price tag. [32]

The *Insight Economics* report [9] focussed on the excessive cost of the FSM, the unacceptable delivery schedule and the very high risks that surround the project. The Government response to the report ignored all of these issues. The then Minister for Defence Industry in particular, while scathing about the "so-called report", appeared not to understand either the extended delivery schedule for the FSM or the very high risks involved both in the *Shortfin Barracuda* and a *Collins-class* Life of Type Extension (LOTE). [8]

It is disingenuous and patently ridiculous (to the point of beggaring belief) to suggest that Defence knew that the true costs would be as much as \$80B in 2015, and did not declare this to be the case. [28] As also reported in 2016, the total cost for the submarine programme across its full lifecycle (2035 to 2080!), by most reliable modelling

will be up to \$270B (including the construction of a new east Coast submarine base, ideally in Wollongong) – not the \$234.7B currently claimed by Defence. [33]

Robert Gottliebsen, writing in *The Australian*, continues to ask "how an original \$25B budget, then grew to \$50B?" [34] He misses both point and economics, as explained above. Rather than chasing down potential graft in Defence, he would be better off examining the gross (\$100-\$140B) incompetency behind the \$50B estimate, and the way in which it has blown out to \$89.7B. We are, it seems, beset by fools rather than knaves!

NUCLEAR BY DESIGN

Proposing a "Nuclear Roadmap[®] for Australia", Christopher Skinner [3] argued, *inter alia*, that "Australia faces an increasingly complex geo-strategic environment in which a nuclear-powered attack submarine [SSN] force would make an extraordinary contribution". He suggested that there is a quantum increase in capability arising from acquisition of nuclear propelled submarines compared with conventionally powered submarines, such as those currently in service and being designed and constructed for Australia. Skinner's main and correct assertion (in the view of both authors) was that:

"a civil nuclear industry is not a prerequisite for nuclear propulsion. On the contrary the timely adoption of nuclear propulsion would be conducive to the creation of the nuclear power industry that would be of broad national economic benefit". [3]

Skinner introduced a Roadmap[®] that he posited could in short order address the three main challenges to adopting nuclear propulsion in Australia, namely

- legislative and regulatory changes to be made;
- the source of nuclear technology and materials to be applied, and;
- the daunting task to educate, train, qualify and employ an expanded workforce with expertise in nuclear propulsion including the new infrastructure essential to the safe, efficient and sustainable adoption of this game-changing technology.

Previously, Admiral Peter Briggs AO RAN (Ret.) [10, 11] set out the strategic capability advantages of a nuclear powered submarine [SSN] and the most credible path to achieve such a capability based upon:

- The current FSM program remain(ing) valid and certainly the quickest way to increase Australia's submarine capability in the face of our deteriorating strategic circumstances.
- An SSN's mobility and ability to avoid exposing itself enable it to achieve significantly greater time on task compared to a conventional submarine. The longer the transit and the stronger the opposition, the greater this advantage.
- A force of modern SSNs would clearly establish Australia at the forefront of the region's growing submarine capabilities and indisputably establish a regionally superior submarine capability.

Briggs' concluded that "in the face of a deteriorating strategic outlook, the consequent need to transition to nuclear submarines (SSNs) expeditiously and the reality that growth of the submarine arm via FSM is essential to starting that transition, that programme must be accelerated, with a national priority allocated for funds, personnel and a fast track for facilities'. [10] He considered that the National Security Council [which, without a National Security Agency to act as its secretariat is simply an outpost of the PM&C] needs to:

...accelerate the FSM project, with national priority for resources without reducing the sovereignty of our new subs. [35] It would also be a good idea to stock up on the high-tech/costly/long-lead-time weapons to go in those torpedo tubes.

Writing in 2019, Mr John Jeremy AM [16], noted that "if we are to switch to nuclear powered submarines, we need to be starting this work now". Meanwhile, he argued, we have entered into a relationship with France for the design of our new submarines based upon the French *Barracuda-class* nuclear submarines. This relationship appears likely to provide us with the best means of changing to nuclear propulsion at some time, perhaps in the 2030s.

PROGRAM MANAGEMENT

Two's company: Three's a Crowd

Negotiations between Commonwealth, Lockheed Martin Australia (LMA), and NAVAL GROUP (previously DCNS) completed in 2019, with the signing of the Strategic Partnering Agreement (SPA). The SPA remains a shoddily substandard premise upon which to base any complex build programme. Let alone one dealing with an artefact of existential strategic significance to Australia. As one senior NAVAL GROUP official commented: "vous ne pouvez pas construire un sousmarin par contrat". Yet build a submarine within the complicated constraints of a prescriptive, fixed contract is exactly what Australia is attempting to do.

The SPA might have worked if it had been based on some form of Joint Venture (JV) or Joint Partnering Agreement (JPA) between the three parties. [36] Such an agreement would, ordinarily, be based on the shared competencies of JV partners and an assured and appropriate balancing of risks. As outlined in Neil Baird's two papers on "the state of Australian Government and Defence", this is simply not the case. [14, 15] Whereas both LMA, and specifically NAVAL GROUP, brought highly competent engineers, designers and naval architects to bear, Commonwealth relied almost exclusively on the AUSDEFON contract suite [14], and contractors acting as Australian Public Servants (at senior and functional levels). All leaning significantly upon the Prime Integrator, LMA. It would not have been so bad if ADF and Navy had developed a programme and deployed some of their best people to the - few in number positions held by dedicated APS and ADF. This was simply not the case. Commenting separately - and not necessarily unkindly - a common theme picked up from senior officials (drawn from major Allies, U.S., UK, and France), was that "the senior officers leading the programme would not have achieved such rank in [their] respective navies". This was not considered the fault of the officers in question – they may simply not have had the maturation and experience necessary to take on these roles. What is telling, is that this was being said independently.

The Defence sovereign outpost in Cherbourg is a case in point. Despite advice to establish a formal education programme in France for APS and ADF staff deploying, this was never undertaken. Fifty personnel were deployed to Cherbourg, not generally based on ability and competency but the fact that they volunteered and, or, were available – the pier head jump. The same admixture as applies throughout the programme exists in the French outpost



Admirals Greg Sammut, Mike Noonan, Christophe Prazuck FN and Tim Barrett (Ret) at the investiture of Admiral Prazuck with his Order of Australia.

- with about 25% ADF/APS, and 75% of the staff contracted APS. A programme of this type requires thinking though – with up to 50 families deploying to, working at, or returning from France at any moment. Moreover, understanding how the French worked and respecting their professional engineering communities was never appreciated. NAVAL GROUP, as for German companies, has a parallel organisational structure, with engineers and architects in one line, and managers in the other. The dilettante "we are all managers now" structure of the APS and ADF (and DSTG) – rejecting professional status, standing, and titles – meant that it was like two ships passing in the night. NAVAL GROUP engineers did not want to waste their time talking to managers on engineering problems and, as far as they could tell, all the Australian workforce were [contracted] managers; not specialists.

To make matters more complicated, of the contractors that made up the bulk of the Commonwealth workforce, many of the more senior positions are filled by U.S. citizens. A large proportion of whom came over when Rear Admiral Stephen Johnson USN (Ret.) assumed the role of General Manager Submarines (CASG), in 2018. A comment made by French officials of both the Adelaide and Cherbourg project offices was "il est très difficile de savoir de qui on parle aussi?" By which they meant, they never knew whether they were "talking to an Australian or American, engineer, architect, or all in one?" They apparently rarely met *bona fide* ADF/APS Australians in positions of influence.

Biases exist, as much between different companies as different nationalities. For example, following the appointment of Admiral Johnson, the vast majority of the Commonwealth contract Directors (in Adelaide) – many of them British (from British parent companies) – were sacked. APS Directors (where they existed) were demoted, and replaced by a raft of U.S. contracted directors – a form of neo-colonialization. Of these Directors, working from both Canberra and Adelaide, apparently "1/3 were highly competent and would have won their position in the U.S. or Europe; 1/3 were average and would have had to run hard; and 1/3 were of neither standing". These same Directors were then put in charge of APS/ADF and the contracted APS workforce. Since NAVAL GROUP officials rarely if ever get beyond the Cherbourg, Canberra, or Adelaide offices, they rarely meet "Australia":

"Je n'ai jamais rencontré l'Australie. Quand je l'ai fait, j'ai réalisé que la culture était unique et différente - pas américaine ou britannique!"

CONCLUSION

Successful projects generally develop their own culture and language (sovereign knowledge) – they are both happy and safe places to "be". For example, the highly successful FFG Programme. [7] The reverse also applies. The biases exhibited by some U.S. Directors were not simply philosophical – as being logic positivists – but, understandably, connected through informal U.S. lines and previous service. Strengthened by the fact that many senior positions at LMA were taken up by [more competent] U.S. contractors, most of whom knew each other. Just as the French did not know "who they were talking too", so it was for many of the functionally contracted Australian Commonwealth employees.

Given the marginalisation of APS in the programme and the few in number ADF, if a painful truth were spoken to a U.S. Commonwealth

director by an Australian APS contractor, then often the speaker was putting their job on the line. [15] At the same time, it is understood that some U.S. Directors made it clear that "if X occurred, the programme would be shut down" - exactly what and by whom was never made clear. Since there were no clear Australian-only reporting lines, discussions could never be held in camera. Concomitantly, because contractors were not expected or paid to be "loyal" – an exploitative culture of fear grew. At the same time, the general competency of LMA (and NAVAL GROUP) senior management, when compared to Commonwealth, meant that LMA senior officials necessarily filled the vacuum - with Commonwealth Directors deferring and referring to them. Ultimately, the SPA became fundamentally inimitable and antithetical to delivering both Australian Sovereign Capability, and best practice. NAVAL GROUP rarely knew to whom or what they were speaking: "Parlonsnous Australien ou Américain?"

This was not the fault of NAVAL GROUP or LMA, or their parent companies – both of whom make first rate submarines and products. The fault lies precisely at the door of Commonwealth, as explored in both Dr Baird's recent papers. [14, 15] The 2020 promotion of Admiral Greg Sammut AO RAN (Ret.) from Head of Future Submarines to become General Manager Submarines (taking over from Admiral Johnson) is unlikely to change this. Neither is the extension in post of Director General Future Submarines Program (based in Adelaide) through 2021 likely to make things any happier. Until Commonwealth takes the mote from its own eye – which now means starting afresh – it is highly unlikely the programme will succeed. Even if Australia had the time, which it patently today does not.

About the Author: Dr Neil Baird has spent 43 years as a global maritime publisher, commentator and event organiser as co-founder, with his wife Rose, of Baird Publications, now <u>www.bairdmaritime.com</u>. He has been a commercial fisherman, briefly a naval reservist, a journalist, and, always, a keen yachtsman. He has been involved with the NLA for more than 30 years, including serving several years on its Federal Advisory Council with the late John Strang AO. Currently, he comments on matters maritime, tends to his investments, and is writing a maritime history of Australia.

Robert C. Blake is a pseudonym. He has written extensively on naval matters in *The NAVY*.



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OPERATION QUICKSTEP: FIJI 2006 Evacuation operation or Maritime Power Projection?

By Greg Swinden

During November – December 2006 the Australian Defence Force was deployed to the South Pacific, in the vicinity of Fiji, in preparation for a potential Non-Combatant Evacuation Operation (NEO) of Australian civilians from Fiji; this was Operation Quickstep. While evacuation operations are technically a 'diplomatic' tasking this paper considers such an operation could potentially be considered an example of maritime power projection.

INTRODUCTION

The definition of maritime power projection, as stated in Australian Maritime Doctrine (2010), is:

Power projection in and from the maritime environment, including a broad spectrum of offensive military operations to destroy enemy forces or logistic support or to prevent enemy forces from approaching within enemy weapons' range of friendly forces. Maritime power projection may be accomplished by amphibious assault operations, attack of targets ashore, or support of sea control operations.

In hindsight Operation *Quickstep* was not required to undertake the evacuation of Australian citizens (and other approved nationals); but it could have. Would the ADF task group have entered a benign environment or been required to fight its way into and out of Fiji?

Military coups and civil unrest are not new to Fiji. As far back as February 1920 the Royal Australian Navy was involved in providing support to the British administration when Indian laborers conducted violent strike action over poor wages. The former minesweeper HMAS MARGUERITE was deployed to Suva, as a show of force, and New Zealand troops were dispatched to strengthen the Fijian Constabulary.

Since independence Fiji has repeatedly shown instability and her military forces have taken actions which are at odds with the democratic rule of law. Older ADF Doctrine referred to two types of evacuation operation. The first is the Services Assisted Evacuations (SAE) which would occur in a benign environment; such as following a natural disaster where support from the affected nation would be expected. The not so 'polite' version was the Services Protected Evacuation (SPE) where the ADF could expect to be confronted by local military forces while attempting to evacuate Australian nationals. In the case of Fiji it's a Forrest Gump box of chocolates – you never know what you're going to get.

THE FIRST COUP

In May 1987 the first of three coups took place when Colonel Sitivena Rabuka, of the Royal Fijian Military Forces RFMF), overthrew the newly elected Government of Dr Timoci Bavadra (a Labour Party collation with the Indo-Fijian dominated National Federation Party). Bavadra came to power in March 1987; after defeating the



HMAS MARGUERITE circa 1926 (Image AWM).

Alliance Party of Ratu Sir Kamisese Mara that had governed Fiji for over 22 years (Mara had led Fiji as Chief Minister, prior to Fijian independence on 10 October 1970, and then as Prime Minister).

The Bavadra Government came to power mainly through the support of Indo-Fijians (those of Indian ethnicity who made up 38% of the population) and only seven of the 28 members of his parliamentary caucus were ethnic Fijians (who made up 57% of the population). Bavadra also had the support of the ethnic Chinese (only 1% of the population) and an unprecedented 9% of ethnic Fijian voters (mainly 'commoners') also supporting his coalition. The Fijian 'elite' saw Bavadra's multi-racial government as intolerable and the beginning of their decline of control over the nation.

After ousting the elected Government Rabuka handed over power to the Governor-General, Ratu Sir Penaia Ganilau who was a high chief but when he attempted to re-instate the abrogated Fijian constitution Rabuka instigated a coup within a coup, on 28 September, in which Fiji was proclaimed a republic. On 5 December 1987 Rabuka handed power back to Ganilau (now President) and Ratu Sir Kamisse Mara who was appointed as Prime Minister.

Rabuka remained in command of the RFMF, and as Minister of Home Affairs, with the ever present threat of another coup if the Governor General and Prime Minister stepped out of line. In 1990 a new Fijian constitution was enacted requiring reserved majorities



HMAS SUCCESS (AOR 304) image Navy.

for ethnic Fijians in both houses of the legislature. Rabuka later served as Prime Minister from June 1992 to May 1999.

In response to the May 1987 coup Australia enacted Operation*Morris Dance* deploying a naval task group, with a company of Australian soldiers embarked in HMA Ships SUCCESS and TOBRUK, to the immediate area in preparation to evacuate Australian nationals if required. [1] This did not come to pass but it did reveal significant flaws in the ADF's sea lift and amphibious capability particularly if Australian citizens could not be evacuated using civilian or military air assets. [2] This lack of suitable amphibious vessels was to lead to the acquisition of the landing platforms amphibious HMA Ships KANIMBLA and MANOORA in 1994.

While the ADF was on standby no Australian forces were deployed ashore for the September 1987 coup. The Government decided to instead to use civil air assets, if required, to evacuate Australian nationals; ultimately this was not required. The political relationship between Fiji and Australia however was, as a result, suspended from late 1987 until May 1994.

THE SECOND COUP

In 1997 the Fijian Government modified its constitution to relinquish the guaranteed majorities in the legislatures. In return ethnic Fijian ownership of most of the land in Fiji was enshrined in the Constitution. This change was to lead to another coup in May 2000. In May 1999 Mahendra Chaudhry, an Indo-Fijian, became Prime Minister of Fiji after the Fijian Labour Party won the general election with enough seats to rule in its own right. On 19 May 2000 a Fijian nationalist and businessman, George Speight, took a ragtag group of armed men into the Fijian parliament, seized control and took Chaudhry and more than 30 members of his government as hostages.

Speight demanded a return to the 1990 constitution in which native Fijians would have guaranteed majorities in the legislature. The Fijian President, Ratu Sir Kamisse Mara, chose not to support Chaudhry but attempted to negotiate with Speight; as he also wanted a return to the 1990 Constitution. Civil unrest fermented and, on 29 May 2000, Commodore Frank Bainimarama (Commander of the Republic of Fiji Military Forces) declared martial law as the head of an interim military government. This action however led to disunity within the RFMF with a mutiny taking place at Sukunaivalu Barracks, on the island Vanua Levu, on 7 July 2000. Soldiers supporting Speight took control of the barracks and began to attack Indo-Fijians and destroy their homes and property. Soldiers loyal to

HMAS KANIMBLA (L51) Loading for Operation Quickspet, Darwin July 2006 (Image Navy).

Commodore Bainimarama quickly quelled this mutiny and arrested the ring-leaders.[3] Bainimarama appointed Laisenia Quarase, a former senior public servant and Senate representative of the Great Councils of Chiefs, as Prime Minister on 4 July.

Interestingly four RAN vessels had completed a good will visit to Fiji only a few days before the coup. During 11-15 May 2000 the frigates HMA Ships ADELAIDE and ARUNTA accompanied by the patrol boats HMA Ships DUBBO and GLADSTONE were alongside in Fiji. The frigates were en-route to Hawaii for Exercise RIMPAC 2000 (along with the tanker HMAS SUCCESS, frigate HMAS NEWCASTLE and submarine HMAS WALLER) while the patrol boats were on a standard deployment to South West Pacific nations. Officers from the ships called on the Australian High Commissioner and Commodore Bainimarama but later recalled there was no inkling of the events to come. That said during a friendly golf game one officer recalled Sitivena Rabuka stating that things in Fiji needed 'sorting out'. [4]

Despite there being several Australian warships in the vicinity none were recalled to Fijian waters and continued on their way to Hawaii or Australian waters. One unofficial source cited that Operation Foxtrot (another dance related identifier) had been stood up but little is known of it. Speculatively the presence of the Australian High Commission staff including Defence Advisors may have determined that an ADF presence in the area may have increased tensions in Fiji.

The ADF was also heavily committed during mid to late 2000 with forces in East Timor as part of the United Nations Operation Tanager, Exercises RIMPAC (Hawaii) and FLYING FISH (Southeast Asia), Operation Belisi in Bougainville and Operation Plumbob in the Solomon Islands with HMA Ships TOBRUK and MANOORA involved in the evacuation of nearly 500 civilians from 11 different nations following the outbreak of fighting in Honiara in early June 2000. Was the ADF overstretched at this point and Fiji thus the lesser of two evils?

THE THIRD COUP

In August – September 2001 a general election took place (following a reversion to the 1990 constitution) with Laisenia Quarase winning 18 of the 23 seats reserved for ethnic Fijians (and one of the three general seats set aside for minorities such as the Chinese and Europeans). He also won 13 of the 25 open seats for candidates of any race. Mahendra Chaudhry (Labour Party) won all 19 Indo-Fijian seats and nine of the open seats with minor parties such as



HMAS NEWCASTLE (FFG06) image Navy.



HMAS TOBRUK (L50) Operating off Fiji as part of Operation Morris Dance, 1987 (image Navy).

the Conservative Alliance and the New Labour Party winning the remaining 11 seats. Despite the elections Bainimarama still wielded significant political influence including preventing the RFMF becoming a multi-racial force; although he supported a multi-racial and coalition government. He also took action to prevent the Fijian elite (the Great Council of Chiefs) playing a more active role in Fijian politics including demanding withdrawal of a bill that would give conditional pardons to those involved in the 2000 coup.

The matter came to a head in October 2006 when Bainimarama, as commander of the armed forces, was overseas visiting Fijian soldiers serving in the Sinai as part of the Multinational Force and Observers. President Ratu Josefa Iloilo announced the termination of Bainimarama's appointment, as commander of the armed forces, and the appointment of Lieutenant Colonel Meli Saubulinayau as his replacement. The majority of senior army officers however remained loyal to Bainimarama, who returned to Fiji on 14 November, and issued an ultimatum to Prime Minister Qarase to withdraw the pardon bill, by 5 December, or the Fijian armed forces would take action.

In Australia the prospect of another coup in Fiji was always a possibility, with some ADF personnel joking that it was an entry in the pre-printed Australian Defence Force diaries issued each year. Following on from the bloodshed of the 2000 coup the Australian Government was taking no chances and Operation *Quickstep* was enacted to conduct, if required, a non-combatant evacuation operation. An estimated 1,000 Australian's were residing in the Fijian islands and, on average, another 3,000 were visiting at tourists.

Additionally, Australia was expecting requests to evacuate other approved foreign nationals from nations such as New Zealand, Great Britain, Canada, etc. Joint Task Force (JTF) 636 was formed under the command of Major General Ash Power and based at Headquarters 1st Division in Brisbane. In hindsight this was a flawed decision as the communications support to Power's headquarters was poor. Additionally Headquarters Australian Theatre (HQAST), then still in its temporary facilities at Potts Point, NSW 'next door' to Maritime Headquarters provided very limited support and within this void the various agencies such as Navy, RAAF, DFAT, etc conducted planning in isolation. [5]

On 31 October 2006 HMAS KANIMBLA (Landing Platform Amphibious) was force assigned to Quickstep and sailed north to Townsville where she embarked five Blackhawk helicopters, two LCM8 landing craft and nearly 200 ADF personnel (a mixture of headquarters and administrative staff, medical personnel, evacuee handling teams, an amphibious beach team, SAS/Commando personnel and crews/maintainers for the helicopters and landing

craft; Lieutenant Colonel James McMahon was appointed in command of the Army contingent. Kanimbla departed Australian waters on 3 November, with Captain Ray Leggatt, RAN embarked as the interim Commander of the Task Group, and arrived in the area of operations (AO) on the 7th. The AO was later defined, in 2010, as comprising *Fiji and its land, internal waters, archipelagic waters, territorial sea and superjacent airspace and the exclusive economic zone of Fiji.* [6]

The frigate HMAS NEWCASTLE, with a Seahawk helicopter embarked, sailed from Sydney on 1 November and, after a brief logistics visit to Auckland on the 4th (for fuel and a top up of fresh provisions), arrived in the AO and rendezvoused with KANIMBLA on the 7th. Meanwhile the tanker HMAS SUCCESS was crashed sailed from Fremantle on 2 November and, after arriving in Sydney on the 8th, she embarked fuel, a large quantity of small arms ammunition and over 100 pallets for stores to support the operation.

Also embarking was Captain Philip Spedding, RAN (as CTG 636.1) and his staff who would take over from Ray Leggatt. Finally, a Sea King helicopter from 817 Squadron was also embarked. SUCCESS arrived in the AO on the 12th and began refueling the other ships and transferring stores and personnel. Captain Spedding (CTG 636.1) embarked in KANIMBLA which was well set up with facilities and communications for an embarked HQ. Planning, preparation and training for the potential NEO commenced. Command and control was later described by those involved as 'pretty messy' and only functioned due to the good working relationship between Leggatt, Spedding and McMahon who knew each other from previous training courses and exercises.

The mix of vessels, aircraft and personnel deployed for this operation provided the ADF with the flexibility to conduct both an air-mobile or amphibious insertion and extraction of forces. RAAF C-130 and Boeing 707 aircraft were on standby in Australia to move forward to evacuate Australian citizens, and others, when and if required. A single P3C Orion was deployed to Pago Pago (American Samoa) to provide surveillance support.

Meanwhile SUCCESS began a regular 'shuttle run' to support the task group. During 13-15 November the tanker transited to New Caledonia to transfer reserve medical personnel and Captain Leggett, who were returning to Australia, and collect new medical personnel for KANIMBLA's Primary Casualty Reception Facility (PCRF). SUCCESS returned to refuel NEWCASTLE, which had been diverted to Tonga on 16 November after an outbreak of rioting, looting and arson in the capital Nuku'alofa. These issues ashore were soon resolved by local police and the frigate re-joined the task group. SUCCESS then returned to Auckland to embark 100

HMAS ADELAIDE (L01) Returns from OP Fiji Assist 3 Feb 2021, image Navy.

pallets of stores (provisions and general stores) and conducting urgent maintenance during 24-27 November. The tanker returned to the Task Group on the 29th which was also the day a Blackhawk helicopter crashed during a routine training flight.

This tragic accident occurred that afternoon as a Blackhawk attempted to land on KANIMBLA's aft flight deck. She struck hard and fast; rolling over the port side into the water and sank. The pilot was killed, but his body recovered, and eight other personnel survived the crash. One SAS trooper was unable to escape the sinking aircraft and drowned. [7] The deceased pilot and several injured personnel were conveyed to Noumea, for return to Australia, by NEWCASTLE on 30 November after which the frigate returned to Fijian waters on 2 December.

The predicted coup took place during 4-5 December. There was minimal violence with many Fijian Government officials placed under house arrest and Fiji's Parliament dissolved. The need to evacuate Australian civilians was deemed unnecessary by the Australian High Commissioner (Jennifer Rawson) and supporting foreign affairs and ADF staff. Civilian flights into and out of Fiji continued throughout November – December which, in the event of need for evacuation, would have been the primary means of transportation out of the country.

The task group remained in the area with SUCCESS conducting another essential logistics visit to Auckland during 8-11 November to collect provisions, stores and equipment before returning to Fijian waters on the 13th. The tanker rendezvoused with NEWCASTLE on the 15th and after refueling the frigate and transferring stores the two ships departed the area and arrived back in Sydney on 17 December. KANIMBLA departed Fijian waters on the 13th and arrived in Townville on the 17th to unload the landing craft, Blackhawk helicopters and army personnel after which she sailed south arriving in Sydney on the 20th.

CONCLUSION

In January 2007 Commodore Bainimarama became Prime Minister of Fiji however Australian relations with the country deteriorated. In November 2009 Australian and New Zealand diplomats were expelled from Fiji for 'meddling in Fijian local politics'; following the sacking of all Fijian judges by Bainimarama for failing to follow his directions. Diplomatic relations were restored in June 2012 and continue to this day (so far). Australian citizens continue to reside in Fiji and visit the island nation as tourists and for work.

The need for Australia to be able to protect its citizens overseas is an essential requirement for a democracy and the Fijian coups have in many respects reminded our Government of the need to have the ability to evacuate Australian's from unpleasant situations. The three Fiji coups from 1987 to 2006 saw a commensurate increase in size and capability of Australian amphibious capability from HMAS TOBRUK through to the Landing Platforms Amphibious (KANIMBLA and MANOORA) which have now been replaced by HMA ships ADELAIDE, CANBERRA and CHOULES. While civil or military airlift remains the ideal method for evacuating civilians from a trouble-spot it may not always be possible. Has the Government reaction to the most recent Fiji coup been a timely reminder that in being ready for evacuation operations it is in many ways actually preparing for maritime power projection?

Postscript: In 2009 the Australia Government approved the award of the Australian Service Medal with Clasp S. Pacific (South Pacific) 2006. ADF personnel who had served for a minimum of 30 days (during the period 31 October 2006 – 22 December 2006) in the Area of Operations (defined in the *Australian Gazette* in early 2010) were entitled to the award. For reasons unknown the Area of Operation (AO) definition effectively denied the entire ships company of HMAS SUCCESS this medal.

Due to her requirements to 'leave the AO', to undertake vital logistics tasking to support the task groups projection of maritime power, the tanker was deemed not to have attained the required 30 days for her personnel to be awarded the medal. Yet without SUCCESS the task group would not have been able to maintain its presence in Fijian waters. Surely if personnel are the ADF's most vital asset this 'denial of service' should be corrected. Finally, we should also not forget the essential need for effective and persistent logistics in projecting power both near and far. ■

About the Author: Greg Swinden joined the RAN in 1985 and trained as a Maritime Logistics Officer. He served in a variety of ships and shore postings and saw operational service in East Timor, the Solomon Islands, Persian Gulf, Afghanistan and on border protection patrols. He is a keen naval historian focussing on the pre-WWII RAN and also the many minor operations that RAN personnel have deployed on post-WWII. Greg resides in Canberra and continues to serve as an active reservist.

REFERENCES/NOTES

- [1] A number of RAN warships were in the region when the coup took place including HMAS Ships ADELAIDE, SYDNEY, CESSNOCK and WOLLONGONG that were visiting Lautoka, Fiji on previously approved port visits. HMA Ships PARRAMATTA, STALWART, SUCCESS and TOBRUK were also diverted to Fijian waters with the Australian Company Group (that had been flown to Norfolk Island by RAAF C-130 aircraft) embarked in SUCCESS and TOBRUK.
- [2] The major issue highlighted was the limited rotary wing (helicopter) capability of the ADF. *Tobruk* could carry helicopters but on an open flight deck exposed to the elements and with limited maintenance capability. Other RAN vessels such as STALWART and SUCCESS had flight-decks and maintenance hangars but for a single helicopter only. The guided missile frigates also had a flight deck and two hangars but in 1987 were only operating the Squirrel utility helicopter on a regular basis. The Sikorsky Blackhawks had not yet been delivered to the RAAF with the first entering service in 1988 and the Sikorsky Seahawks (S70-B) were also not yet in service.
- [3] The author was serving in East Timor (Operation TANAGER) at the time and recalls that the Fijian contingent, then serving in Suai near the West Timor border, suddenly announcing it was preparing to depart and return to Fiji. It took significant negotiation by senior Australian and United Nations officers to prevent this departure occurring.
- [4] Names of sources withheld at the request of the individuals.
- [5] Headquarters Australian Theatre (HQAST) was created in 1996 and based in a 'spare building' next to Maritime Headquarters in Potts Point, NSW. Headquarters Join Operations Command (HQJOC) – Transitional was created in 2007 and located temporarily at RAAF Base Fairbairn (Canberra) during 2007-2008. In late 2008 HQJOC was re-located to its current site; the General John Baker Complex at Bungendore in NSW. The author worked at Fleet Headquarters (FHQAUST) in 2006-07 and recalls being directed by HQAST staff that all support for ships for Operation QUICKSTEP would be provided via HQAST – yet the ships often by-passed HQAUST and reverted to Fleet Headquarters for various levels of support (i.e. logistics, administration, etc).
- [6] Australian Gazette S85 3 March 2010.
- [7] This was Trooper Joshua Porter whose body was eventually recovered in early March 2007 by MV Seahorse Standard. The survey vessel HMAS Melville was deployed to the area during 4 -22 December 2006 to locate the wreckage of the crashed Blackhawk.

JS SORYU (SS501) DAMAGED IN A COLLISION WITH CHINESE MERCHANT SHIP

According to Maritime Self Defence Force officers speaking to the *Japan Times*, the damage to JS SORYU is much more extensive than first thought. Part of the 84-metre-long SORYU'S conning tower has been warped – giving rise to stability, noise, and steerage concerns – while the starboard hydroplane which controls depth, is damaged beyond repair. Communications and sensors routed through and operating from the conning tower were also extensively damaged, and brought off alignment. Alignment of sensors and weapons is critical to detection, location, engagement, and the deployment of selfdefence decoys etc.

The incident occurred on 8 Feb 21 at 10:55 (local time) off Cape Ashizuri in Kochi Prefecture.

The damage to the submarine's communication equipment and, most likely, power supplies being disrupted – potentially a partial or total loss of power following the collision – resulted in the incident not being reported to the Japanese Coast Guard for three hours following the collision. In actual fact, the first alerts were raised by personal mobile phones belong to members of the ship's company.

Sources suggest that the automatic identification system (AIS) data – a tracking system that provides logs of vessels' movements – indicate that the MV Ocean Artemis (with which the JS SORYU impacted) was heading in a northerly direction and was making between 7.7 and 11.1 knots when it collided with the SORYU. All this information can be gleaned from open sources, including the Marine Traffic website.

It is plausible that the SORYU was submerged, but at a shallow depth. Notwithstanding, the submarine was far enough below the surface to make it impossible to use the periscope. Had the submarine been at periscope depth, it would have been hard to miss a bulk carrier like the *Ocean Artemis* visually, unless the periscope operator was completely negligent, since it was broad daylight and visibility was assessed as good.

The extent of the warping of the conning tower and its associated sensors will largely determine the cost-effectiveness of repairs. This is likely to be a test for Japanese industry, while also providing useful lessons on both damage control and repairing damaged ships. In peacetime, depending on the extent of damage, it is often more cost effective to build afresh than to affect repairs. For example, the USS BONHOMME RICHARD (LHD-6).

JMSDF Chief of Staff Admiral Hiroshi Yamamura has apologied for the incident and said that there was no excuse for the failure in communications and inability to alert the Coast Guard.

Three sailors were injured in the incident – we wish them a speedy recovery.

REVIEW OF AUSTRALIA'S FUTURE SUBMARINE

In a sign of clearing the decks for the forthcoming general election, expected now in October 2021, and also growing frustration – not so much with NAVAL GROUP – as with the Capability Acquisition and Sustainment Group (CASG) and, potentially, his own Ministers, in February the Prime Minister announced a review into the future submarine to examine alternative options.

Additional detail is provided in Paper 1, this issue, "A Stocktake". The project has been marked by strains between the Defence Department and NAVAL GROUP, and also between Defence and Lockheed Martin Australia (LMA) – the Prime Integrator of the program. Although LMA, by dint of its U.S. and 5 Eyes relationship has, perhaps, come under less scrutiny?

As well as the future submarine program, the review will examine upgrading and extending the life of the existing *Collins-class* submarines and agreeing the location of an east coast submarine maintenance and support base. In addition



JS SORYU (SS501) Damaged in a Collision with Chinese Merchant Ship.

to the expansion currently being planned for Garden Island West, HMAS STIRLING. The Prime Minister deferred the east coast basing decision in 2019, when its potential location had been widely circulated ahead of protocol.

Vice-Admiral Jonathan Mead AO PhD RAN (the previous Fleet Commander) and Commodore Tim Brown RAN, Director General Submarine Capability, are to examine options, including (apparently) the Saab Kockums' offer to the RNLN for a longrange conventional powered submarine. Kockums is the original designer of the *Collins-class*.

The PM's office stated that the future submarine project continued to progress:

Defence continues to work closely with Naval Group to progress this project to ensure it is delivered on-time, on-spec and on-budget.

Paper 1 (this issue) provides a detailed summary which Vice Admiral Mead and Commodore Brown may both wish to consider during their review. Paper 1 recommends, *inter alia*:

- 1. Maintaining the FSM *Attack-class* build by NAVAL GROUP for delivery in the 2035 timeframe, but as a nuclear-powered submarine (SSN). Its original design.
- 2. Not undertaking a highly risky, time consuming, and expensive Life of Type Extension for the, now, successful and highly effective *Collins-class* submarines.
- 3. Instead, "procuring six *Soryu-class* submarines, as a stop gap so that the ageing *Collins-class* can be replaced in the next eight years, at the latest".
- 4. In the interim, asking [ourselves] "what would we be doing if it were at war" and then doing it. For example, "developing Versatile Modular Systems concepts ...and [adapting] current industrythinking to mobilise ship / submarine building; applying modularised designs. Including heavy lift and mother-ship technologies, to take the submarine force forward, rapidly.
- 5. With 4., investigating "a short-term fix; including the purchase (at \$15.6B) of a dozen small German or Korean AIS, shallow water submarines. These would be ideally deployed to our close northern waters, much of it shallower than 200 metres".
- 6. With 4, procuring "a similar number of the largest, most capable of the new Boeing UUVs should be considered at the same time...[at a total cost of] about \$4B)".

This six-point plan will require leadership but is considered eminently doable. To a greater or lesser extent it is probably what Mead and Brown will conclude.

US NAVY LPD-17 FLIGHT II AND LHA Amphibious Ship Programs – Reports to Congress

This report discusses two types of amphibious ships being procured for the Navy: LPD-17 Flight II class amphibious ships and LHA-type amphibious assault ships. Both types are built by Huntington Ingalls Industries/Ingalls Shipbuilding (HII/ Ingalls) of Pascagoula, MS. The first LPD-17 Flight II class ship, LPD-30, was procured in FY2018. LHA-type amphibious assault ships are procured once every few years.

A key issue for Congress concerns the Navy's force-level goals for amphibious ships and the effect these goals could have on future procurement of LPD-17 Flight II and LHAtype ships. The Navy's current force-level goal, released in December 2016, calls for achieving and maintaining a 355-ship fleet that includes 38 amphibious ships—12 LHA/ LHD-type amphibious assault ships, 13 LPD-17 Flight I class ships, and 13 LPD-17 Flight II class ships (12+13+13). The Navy and DOD since 2019 have been working to develop a new force-level goal to replace the Navy's current 355-ship force-level goal.

On December 9, 2020, the outgoing Trump Administration released a document that presents an envisioned Navy force-level goal for achieving by 2045 a Navy with 61 to 67 amphibious ships, including 9 to 10 LHA/ LHD-type ships and a combined total of 52 to 57 LPD-type ships and Light Amphibious Warships (LAWs). (LAWs are a planned new kind of amphibious ship that are covered in another CRS report.)

The December 9, 2020, document also calls for a future Navy with 0 to 6 light aircraft carriers (CVLs). The design for such carriers, if any are procured, might be based on the LHA design. In establishing its forcelevel goals and shipbuilding plans for the Navy, the Biden Administration can choose to adopt, revise, or set aside the December 9, 2020, document.

LIGHT AIRCRAFT CARRIERS (CVLS)

Light Carrier Studies are already Underway as the U.S. Navy Considers the Role for CVLs in Future Fleet. A role that, it is understood, is also considering the application of VMS designs about commercial hulls.

The US Navy's engineering community has already started conducting light carrier design and engineering studies, even as the Navy and the joint force still consider whether they'd even want to invest in a CVL to supplement supercarriers to bring more distributed capability to the fleet for less cost.

The idea of a light carrier resurfaced last summer as a Pentagon-led Future Naval Force Study (FNFS) was nearing its completion. The idea hadn't appeared in Navy and Marine Corps plans, but then-Defense Secretary Mark Esper had a growing interest in the topic as he sought ways to keep future shipbuilding and sustainment costs down and as he worried about the Navy's ability to conduct maintenance on its nuclear-powered aircraft carriers at Navyrun public shipyards.

The FNFS and the plan it produced, Battle Force 2045, ultimately recommended between zero and six light carriers and noted much more study would need to be done.

That work is already happening at Naval Sea Systems Command within the engineering and logistics directorate (SEA 05).

Rear Adm. Jason Lloyd, the SEA 05 commander and deputy commander for ship design, integration and engineering, commented:

Just because a decision was made 10 years ago does not necessarily mean that decision is the right decision now. When you're looking at littoral warfare or you're looking at great power competition, those are two different adversaries, and the weapons that you need to fight those adversaries might be very different.

Admiral Lloyd went on to say"

I think it's important to continue to think, hey, how does the change in the current warfare situation, as well as the capability of the weapon on the aircraft carrier, which is really the plane, how is that changing, and how do we capitalize on that?

It's [also] important to continue to think, hey, how does the change in the current warfare situation, as well as the capability of the weapon on the aircraft carrier, which is really the plane, how is that changing, and how do we capitalize on that?"

VIETNAMESE FRIGATES ATTEND RUSSIAN INTERNATIONAL ARMY GAMES, 2021

Vietnam will send two warships to International Army Games 2021, marking the first time ever the nation has done so.

The Vietnam People's Navy will send missile defence vessels TRAN HUNG DAO (015) and QUANG TRUNG (016), currently charged with protecting the country's south-central coast, to the Games, the Hai Quan (Navy) Newspaper reported.

The two vessels will compete in the "Sea Cup" category that requires the crew to take part in a damage control and rescue training, seamanship, and artillery contest.

Russia had said last month it expects to hold International Army Games 2021 from Aug. 22 to Sept. 4 with 34 disciplines hosted by several countries. Some 50 countries are set to take part in the International Army Games, Russian news agency TASS said last December.

Vietnam will host Military Medical Relay Race and the second group stage of Sniper Frontier contests for countries in the Asia-Pacific region, Major General Tran Van Ba, deputy director of the Department of Politico-Military Training under the General Staff of the Vietnam People's Army (VPA), said last month.

He added the department had agreed with the contest format provided by Russia's Ministry of Defence.

The VPA sent its soldiers to participate in 11 of 31 disciplines at International Army Games 2020 and "Friendship Without Borders" Festival organized by Russia.

In its third year at the games, Vietnam took home three bronze medals and a champion cup in Group 2 of the Tank Biathlon, beating Abkhazia, Congo, Laos, Myanmar, Qatar, South Ossetia and Tajikistan.



MH-60S Sea Hawk flies past USS THEODORE ROOSEVELT (CVN 71) and USS America (LHA 6) Pacific March 2021 (Image USN).



Secretary of Defence Greg Moriarty, together with a large contingent of Defence senior leaders, launched the Arafura-class Offshore Patrol Vessel.

HMAS MAITLAND SOLOMON ISLANDS DEPLOYMENT

HMAS MAITLAND (PB-88) is supporting regional fisheries operations and Solomon Islands' maritime and border security efforts.

As part of our security partnership, and at the request of the Solomon Islands Government, HMAS MAITLAND will conduct maritime surveillance support as the Solomon Islands prepares to receive its second *Guardian-class* Patrol Boat, RSIPV TARO, under the Pacific Maritime Security Program later this year.

The visit will be contactless, to ensure the health and safety of the Solomon Island community in the COVID-19 environment. No Australian Defence Force personnel will disembark.

Commander of HMAS MAITLAND, Lieutenant Commander Julia Griffin said the deployment reinforced our close bilateral partnership and shared maritime security interests:

Australia and Solomon Islands share a strong and enduring security partnership, built on a shared vision for a region that is secure, stable, resilient and prosperous,"

We are working with the Solomon Islands government to improve maritime security in its exclusive economic zone, under the Pacific Maritime Security Program, and through regular Royal Australian Navy visits.

Through the Pacific Maritime Security Program, Australia is delivering 21 *Guardian-class* Patrol Boats to 12 Pacific Island nations and Timor-Leste to support regional security and maintain a secure, free and open Pacific.

ARAFURA DRY LAUNCHED

Secretary of Defence Greg Moriarty, together with a large contingent of Defence senior leaders, dry-launched the *Arafura-class* Offshore Patrol Vessel (OPV) Enterprise and opened the OPV System Program Office at the Henderson maritime precinct. Deputy Secretary National Naval Shipbuilding, Tony Dalton commented:

It is great to see the co-location of Commonwealth shipbuilding and sustainment personnel and Lurssen, CIVMEC and Raytheon industry partners delivering outcomes for our Navy.

Head Maritime Systems, Rear Admiral Wendy Malcolm said the establishment of the OPV Enterprise represented an important milestone under the Continuous Shipbuilding Plan:

Not only does this promise to deliver long-term jobs to West Australians and confidence for industry to invest in Perth, but it will ensure our Navy is able to meet all Government tasking in order to protect our nation's security.

The *Arafura-class* OPVs, which replace the *Armidale* and *Cape Class* patrol boats, will be the Australian Defence Force's main asset for maritime patrol and response duties and will primarily undertake constabulary missions. A criticism of the class is that they are too few; do not replace in total or by capability and numbers the existing *Armidale* and *Cape Class*, and have been critically underarmed and under-sensored: "fitted with but not for".

GREENWHICH STATION

HMS QUEEN ELIZABETH (RO8) set sail with its Carrier Strike Group (CSG) from HM Naval Base Portsmouth, 2 Mar 2021. The CSG comprises Type 23 Frigates, Type 45 Destroyers and RFA Fleet Tankers – in addition to a Strike Submarine (SSN).

The CSG will enter the Mediterranean for exercises in mid-March; before transiting the Eastern Mediterranean and Suez Canal and deploying to the Indian Ocean in early May. She is expected to enter the contested South China Sea and commence operations with QUAD Navies, including Singapore, New Zealand and Malaysia, in June and July. This has already brought threats of Cyber attacks against the Strike Group by China and the PLAN.

Under current planning, RN Strike Group ships will deploy to Australian waters in the northern autumn, with HMS Queen Elizabeth potentially exercising off Sydney and Jervis Bay in August / September / October. The Strike Group is not intended to be permanent – although plans are currently afoot to station HMS QUEEN ELIZABETH in the Far East. The Strike Group is likely to return to the UK via Hawaii and the Panama Canal, in September / October. ■

AURORA PAYS OFF

The Australian icebreaker the *Aurora Australis* docked at Franklin Wharf in Hobart, Australia. The giant orange icebreaker *Aurora Australis* left Australia for the final time in December 2021, after more than 150 trips to Antarctica. Next stop: a shipyard in Dubai, where it will be refurbished and either leased or sold.

IN WITH THE NEW

Nuyina, Australia's newest icebreaker, has left the Dutch port of Vlissingen to commence trials in the North Sea. The month-long sea trials will be followed by additional weeks of deepwater trials. Testing of the ship's speed, noise, propulsion systems, steering, advanced electrical systems, and science equipment will take place as it prepares for final sea ice trials in the Arctic early next year. With capacity to carry 117 expeditioners, 1,200 tonnes of cargo and 1.9 million litres of fuel, the icebreaker is expected to serve as the main lifeline to Australia's Antarctic and sub-Antarctic research stations in the coming decades. It will also be equipped for studying the depths of the Southern Ocean, sea ice, and the upper atmosphere. Nuyina will be homeported at the Australian Antarctic Division's headquarters in Hobart.

DEEPEST SHIPWRECK EVER FOUND

A group of researchers has confirmed that an American warship recently found at the bottom of Leyte Gulf in the Eastern Philippines is the deepest sunken shipwreck ever discovered.

Found at a depth of 6,220 metres is what the crew of the research vessel Petrel have identified as a US Navy destroyer that was lost to enemy action in October 1944 at the *Battle of Leyte Gulf*, a massive naval engagement involving over 300 American and Japanese surface ships and submarines.

The announcement of the discovery was made in the days following the 75th anniversary of the opening phase of the fourday battle, which took place during the final year of World War II.

Petrel's crew said the wreck is of a US Navy *Fletcher-class* destroyer but could not state for certain whether it is USS JOHNSTON or USS HOEL, both of which were sunk off Samar province on the third day of the battle on October 25, 1944. Researchers on Petrel remarked that the wreck is "completely decimated" with no hull numbers clearly visible, making it difficult to positively identify.

Both JOHNSTON and HOEL had formed part of *"Taffy 3,"* a small US Navy task force of six escort aircraft carriers, three destroyers, and four destroyer escorts that had fought against the numerically superior Imperial Japanese Navy Center Force consisting of four battleships including the celebrated YAMATO, six heavy cruisers, two light cruisers, and 11 destroyers.

In addition to JOHNSTON and HOEL, the escort carriers USS St. LO and USS GAMBIER BAY and the destroyer escort USS SAMUEL B. ROBERTS were lost on the American side while the Japanese heavy cruisers CHIKUMA, CHOKAI, and SUZUYA were sunk in the same engagement. Despite the Americans' heavy losses, Taffy 3's actions have been regarded by many historians as critical in preventing the Japanese from disrupting the landings of General Douglas MacArthur's ground forces at Leyte in the first phase of the Allied campaign to liberate the Philippines. Petrel's discovery of the yet unidentified *Fletcher-class* destroyer in Leyte Gulf comes just weeks after the vessel had located the wrecks of AKAGI and KAGA, two of the four Japanese aircraft carriers sunk in the pivotal *Battle of Midway* in June 1942. – **Baird Maritime.**

AXIS OF ILLIBERALS

Analysis from *Braemar ACM* shows that a quarter of all aframax tankers more than 20 years old are deployed in Venezuelan and Iranian trades, analysis. The vessels were thought to be involved in the sanctioned shipments because they do not have their Automatic Identification System on, according to the shipbroker's weekly report. Aframax and longrange tankers are one of the most rapidly ageing sectors within the global tanker fleet, data shows. Some 78, or 8%, are above 20 years of age and at least double that number are aged between 16 and 19 years.

Iran is sending its biggest fleet of tankers to Venezuela in defiance of US sanctions to help the isolated nation weather a crippling fuel shortage. Some of the flotilla of 10 tankers will be used to help export Venezuelan crude after discharging fuel. The Maduro regime is widening its reliance on Iran as an ally of last resort after even Russia and China have avoided challenging the US ban on trade with Venezuela. The country was once a top supplier of fuel to the US and boasted one of the lowest domestic gasoline prices in the world, can now barely produce any fuel.

ISRAEL'S SHIELD

The Israeli Navy has confirmed it has taken taken delivery of its first *Sa'ar 6-class* corvette, the INS MAGEN ("Shield"), following completion in Germany.

Built by a partnership of German Naval Yards Kiel and ThyssenKrupp Marine Systems (TKMS), the 2,000-tonne vessel will be fitted with Israeli-made defensive systems in Israel. INS MAGEN will be operated primarily as an anti-missile defence platform.

BUSIEST PORT

THE port of Shanghai has reaffirmed its position as the world's busiest container port setting a new record by handling 4.2 million TEU, a year-over-year increase of 15.7 per cent according to official data released by the Chinese authorities. ■





Aurora Australis.

ADDRESSING AUSTRALIA'S STRATEGIC Vulnerabilities at home and abroad

By Captain George Galdorosi USN (Ret)

As readers of *The NAVY* know, Australia is an increasingly important nation in the Indo-Asia-Pacific. And while the statement from the Budget White Paper is five years old, it continues to define the shared responsibilities of the ADF, RAN and the Department of Home Affairs. And while there is no rigid dividing line between the roles and responsibilities of these organizations, it is fair to say that the Department of Home Affairs has major responsibilities to defend the nation's landmass and littoral waters, while the ADF, and especially the RAN, are concerned with those same littoral waters, as well as maritime interests throughout the region and beyond.

A STRATEGIC PERSPECTIVE ON AUSTRALIA'S ROLE IN THE REGION—AND THE WORLD

The first responsibility of a national Government is the safety and security of its people.

Ministerial Foreword

Defending Australia and its National Interests, 2015-16 Budget White Paper

For many years, *The NAVY* has provided a compelling and articulate vehicle to help Australians understand the need for—and value of—a strong Royal Australian Navy. These aspirations are now reaching fruition. Australia is investing in a navy of large, modern capital ships that will be second-to-none when compared to other blue water navies in the region. Chief among them are the *Canberra-class* Amphibious Assault Ship (LHD), one of the most capable and sophisticated amphibious deployment systems in the world and the *Hobart-class* Air Warfare Destroyer (AWD), which is one of the world's most capable all-purpose warships.

In addition to these capital ships, Australia is also building new Offshore Patrol Vessels. These new ships will join a fleet of capable RAN ships, including: *Anzac-class* frigates, *Adelaide-class* frigates, *Collins-class* submarines, *Armidale-class* patrol boats, *Huon-class* mine hunters, and a number of amphibious, replenishment, and survey ships of various classes. Together, these ships represent an already formidable capability which will be enhanced by these newly-arriving vessels.

TIME FOR A STRATEGIC REASSESSMENT OF AUSTRALIA'S SECURITY FORCES

Now that this major naval building program is well underway, it is likely time to take a "strategic pause" and assess which of the naval warfare areas are in reasonably good order and which ones need a boost to ensure that Australia's organizations responsible for ensuring Australia's security and prosperity through their actions both at home and abroad.

Australia is unique in that it is an island nation with no other countries touching its borders. Therefore, an overwhelming amount of Australia's trade—accounting for a major portion of its economy travels by sea. The nodes of this trade are Australia's ports: Brisbane,



HMAS HOBART (DDG 39) participates in the 183rd Royal Hobart Regatta (Image POMPS BT Matchett).

Fremantle, Melbourne, Sydney and others, The Department of Home Affairs has a major responsibility for the security of these ports, and the RAN and ADF have assets that can be brought to bear to help protect these large and vulnerable harbors.



HMAS YARRA (M87) in Jarvis Bay (Image CPOIS Cameron Martin).

Further afield, the ADF and RAN have increasing regional responsibilities to secure both Australia's near-seas and oceanic areas throughout the South Pacific and beyond. Now that Australia has billion-dollar capital ships such as the *Canberra-class* Amphibious Assault Ship *Hobart-class* Air Warfare Destroyer it is increasingly deploying these ships in battle formations throughout the region. As these multi-billion-dollar naval groups perform a myriad of missions, protecting the sailors and soldiers who serve on those ships becomes a national priority.

While there may appear to be little connection between the efforts to secure Australia's harbors and the need to ensure the safety of the nation's far-flung naval battle formations, from this observer's perspective, there is one threat that deserves more intense focus to ensure that the nation's harbors and naval assets are as secure as possible. That threat is one that also bedevils other nations: the hazard of naval mines.

MINE WARFARE: A CENTURIES OLD CHALLENGE

Mine warfare is not new. Precursors to naval mines were first invented by innovators of Imperial China. The first plan for a sea mine in the West was drawn up by Ralph Rabbards, who presented his design to Queen Elizabeth I of England in 1574. Since the invention of the Bushnell Keg (a watertight keg filled with gunpowder that was floated toward the enemy, detonated by a sparking mechanism if it struck a ship) in 1776, mine warfare has been an important element of naval warfare. In the U.S. Navy tradition, some 130 years ago Admiral David Farragut became famous for "damning torpedoes" (mines) at the entrance to Mobile Bay during the American Civil War.

The naval mine has been a mainstay of modern warfare. The North Sea Mine Barrage, a large minefield laid by the U.S. Navy and Royal Navy between Scotland and Norway during World War I, inhibited the movement of the German U-boat fleet. Mines released by U.S. Navy submarines and dropped by U.S. Army Air Forces B-29 bombers in the Western Pacific during World War II sank hundreds of Japanese warships, merchant ships, and smaller vessels. [1] Enemy-laid mines also took a high toll of Allied ships in both world wars.

In the past several decades, rogue states have indiscriminately employed sea mines. Indeed, Operation Desert Storm highlighted the importance of mine warfare with the near catastrophic damage to several U.S. Navy ships. Worldwide proliferation of mines compounds this challenge, as there are dozens of countries with mines, mining assets, mine manufacturing capabilities, and the intention to export mines. More than 50 countries possess mines and mining capability. [2]

This is how one Australian analyst, writing for the Australian Strategic Policy Institute, addressed the challenge posed by naval mines:

In mid-2018, the Chinese navy conducted one of the largest mine warfare exercises in living memory, involving some 60 minelayers and minesweepers, aircraft and submarines practising laying and countering live mines. This unprecedented exercise, supported by some of China's top scientists and mine development specialists, increased the already growing unease about China's expansion into the South China Sea. One possible scenario is that China will use its growing mine stocks in a period of tension to further control access to areas surrounding its South China Sea claims by laying protective minefields—or even just claiming to. [3]

Some have gone further in quantifying the mine-laying capability of potential adversaries. In an article published by the Center for International Maritime Security, an Italian analyst provided a finergrained description of the level of the threat, noting:

China has a fleet of 33 mine warfare vessels and over 50,000 mines (some put the estimate as high as 80,000 or even 100,000), consisting of over 30 varieties of contact, magnetic, acoustic, water pressure and mixed reaction sea mines, remote control sea mines, rocket-rising and mobile mines.

Russia has a fleet of 47 mine warfare vessels and inherited an arsenal of upwards of 250,000 mines from the Soviet Union, while Iran is estimated to have between 3,000 and 20,000 mines and North Korea is said to have 50,000 mines.

As if these numbers were not threatening enough, Iraq was able to damage two U.S. Navy ships by deploying only around 1,000 mines, many of them old types dating back to before World War I that can be replicated cheaply (contact mines cost as little as \$1,500) even by third world nations. [4]

Even the threat of mines can stop any naval operation dead in its tracks. The use of sea mines adjacent to maritime choke points presents a threat that is at once ubiquitous and deadly. [5] Further afield, sea mines have broader repercussions for global maritime trade routes as well. Sadly, most nations—including Australia—have given insufficient attention to dealing with the threat sea mines pose to naval and merchant activities worldwide.

Lest anyone think that the mine countermeasures challenge is "hypothetical," just a casual perusal of defense media articles suggests otherwise. The NATO alliance has a long history of mine countermeasure exercises, and has stepped up their periodicity and complexity. An article in *Second Line of Defense*, "NATO Mine Counter Measures Group One Works in Norwegian Waters," presented the challenge in compelling terms. More recently, the November 15, 2019 *Latvian Public Broadcasting System* article headline was as stark as it was disturbing: "NATO ships clear more than 50 mines from Baltic Sea." As the article noted: "During the Hod ops exercise, approximately 20 square nautical miles were cleared, finding 56 explosive items, including various different types of mines. Currently, 43 mines have been destroyed, and the Navy will continue its work on neutralizing the remaining 13 mines." [6]



WW1 Minefields around the United Kingdom.

AUSTRALIA'S CURRENT AND PROJECTED MINE COUNTERMEASURES CAPABILITIES

Australia's extant mine countermeasures (MCM) capability resides in four active and two reserve *Huon-class* mine-hunter ships. Built between 1994 and 2003 under Project Sea 1555, these relatively large (by international standards) vessels have served the RAN well for years. In 2019 the government announced that the planned service life extension program for the *Huon-class* would not go forward. In 2020, the RAN announced that the *Huon-class* will be replaced by the multi-role Arafura Offshore Patrol Vessel (OPV).[7]

Editor's Note. This is not entirely correct. A OPV version may replace the *Huon-class*, however this has not yet been determined.

Australia has long-recognized the need to develop a credible MCM capability. In 2007, Project 1778 was formulated to provide a way-ahead and deliver an array of MCM assets to the RAN, including

a number of autonomous systems. This program has been slowed considerably and it is unlikely that any of these capabilities will be delivered as a *system* in the next decade.

While there are potential MCM vessels planned for future building programs, at least for the next decade, Australia's MCM capability will reside in the aging *Huon-class* and some number of Offshore Patrol Vessels outfitted for the MCM mission. That said, even under an optimistic building program that may deliver as many as 14 OPVs, given the vessel's planned missions where these 14 ships replace 26 vessels across four separate ship classes: the *Armidale-class* patrol boats, the *Huon-class* mine-hunters, the *Leeuwin-class* survey vessels, and the *Paluma-class* survey motor launches, it is unlikely that more than a few of these ships will be available for the MCM mission. [8]

Given the compelling need to deal with the mining threat to Australia's large number of far-flung ports, the requirement to protect the near littorals which provide an increasingly important part of the nation's economy, the need to protect the RAN's expensive capital ships, as well as the desire to team with other regional navies to protect vital waterways such as the Strait of Malacca, Australia would be well-served to focus more intently on developing a robust MCM capability.

This is not to say that no progress has been made. Over a decade ago, the RAN experimented with autonomous underwater vehicles that could be adapted for the MCM mission. More recently, Exercise Autonomous Warrior 2020, conducted in Jervis Bay, demonstrated the effectiveness of more advanced unmanned maritime systems. Brought together as a system, some of these autonomous vehicles could help in the MCM mission.

All that said, this still leaves the nation with a brittle MCM capability. Even if more than a few *Arafura-class* OPVs are fitted out for the MCM mission, these ships are steel-hulled, making them especially susceptible to all varieties of naval mines. Under current procurement plans, these ships will not have any magnetic or acoustic signature reduction systems, nor will they have any shock hardening features to protect both ship and crew from mine detonations. [9]

For all navies, there is only one way to completely, "Take the sailor out of the minefield," and that is to leverage unmanned technologies to hunt and destroy mines at a distance. As naval analyst Norman Friedman pointed out in a piece for *Defense Media Network*, "Gulf War 20th: Naval Lessons of the Gulf War," the severe damage done to U.S. Navy ships, USS SAMUEL B. ROBERTS (FFG 58), USS TRIPOLI (LPH 10) and USS PRINCETON (CG 59) by simple sea mines is something that must be avoided in the future. [10]

ADAPTING EMERGING TECHNOLOGIES TO DEAL WITH THE MINE COUNTERMEASURES CHALLENGE

Given today's compelling mine threat, as well as the age of Australia's current MCM force, the fact that current MCM systems are sun-setting rapidly, and the lack of robust MCM on the horizon, it may be time for Australia's defence establishment to shift to a new technology paradigm and focus on technologies and especially commercial-off-the-shelf (COTS) technologies that will likely deliver an MCM capability faster than traditional acquisition processes.



USS INAUGURAL (AM-242) saw service at Okinawah during WW2.

If Australia wants to buy-down inherent technical risk and challenge the paradigm of long-cycle acquisition in the deadly serious business of MCM, it is time to put a near-term solution in the hands of RAN sailors. While complex programs of record are developing next-generation technology, the Navy should invest in parallel-path solutions that leverage mature subsystems ready to provide speed to capability today.

To be clear, this is not a platform-specific solution, but rather a *concept*. When RAN sailors see a capability with *any* unmanned COTS platforms in the water successfully performing the MCM mission, they will likely press industry to produce even more-capable platforms to perform the autonomous mine-hunting and mine-clearing task. While evolutionary in nature, this disruptive capability delivered using emerging technologies can provide the RAN with a near-term solution to the deadly mine threat that will protect the nation's harbors as well as the RAN's naval formations further afield.

FROM CONCEPT TO CAPABILITY: WHAT WOULD SUCH A SYSTEM LOOK LIKE?

As a former U.S. Navy officer and now Navy civilian analyst, I am most familiar with the systems the U.S. Navy has examined in a wide-array of exercises, experiments and demonstrations. As far back as Exercise RIMPAC 2016 (which included the participation of HMAS CANBERRA), the U.S. Navy has been actively experimenting with unmanned surface vehicles to support a number of naval missions, including MCM. During that three-week exercise, the U.S. Navy employed several small, catamaran-hull unmanned surface vehicles called MANTAS for ship escort and harbor security. Subsequently, a larger (12-foot) craft was deployed in a number of other U.S. Navy and Marine Corps events over the course of several years. Based on MANTAS success in those operations, U.S. defence officials encouraged MANTAS manufacturer (MARTAC Inc.) to "scale-up" their USV to a thirty-eight-foot version (dubbed the T38).

In 2020, the U.S. Navy decided that it was time to determine whether this T38 unmanned vehicle could be combined with mine-hunting and mine-clearing unmanned systems to provide a "single sortie to engage" MCM capability. Over the course of a comprehensive U.S. Navy exercise, "Trident Warrior 2020" the system-of-systems was put through its paces. The results, while still being fully analyzed, exceeded expectations and showed that pulling together a number of COTS systems—all of which are being used today in one way or another by various western navies—can deliver a robust autonomous MCM capability. For Trident Warrior, the Navy-industry team used the following COTS assets to demonstrate this autonomous MCM capability:

- A scaled-up version of the twelve-foot MANTAS high-speed catamaran. This T38 is similar in size to an eleven-meter RHIB carried by many U.S. Navy ships and thus can be easily integrated aboard most U.S. Navy warships. The T38 can operate in up to sea state five. The T38 carries both a mine hunting sonar system and mine neutralization ROVs, and a submerged aft-hull well-deck configuration for simple autonomous launch and recovery of these subsystems.
- A suite of sensors controlled by an Integrated Common Control Architecture housed in a ship-installed or mobile control console. The two primary MCM subsystems that can be carried aboard the MANTAS are:
 - A Kraken Robotics Katfish-180 Synthetic Aperture Sonar (SAS) optimized to search for mine-like objects (MLOS). This in-production COTS system can survey three and one-half square kilometers per hour at a resolution sufficient for MLO classification. Verified MLOs will be added as a waypoint for validation, while invalid MLOs will be discarded. Verified MLOs will be continuously updated to a recommended route for the Mine Neutralization System (MNS) Remotely Operated Vehicle (ROV). After the area search is complete, the T38 transitions from hunting to neutralizing by conducting a stern submerged well-deck recovery of the tow-body and launch of the tethered MNS ROV.
 - The Idrobotica Pluto Gigas MNS ROV conducts the "dull, dirty and dangerous" work previously conducted by classes of U.S. Navy ships by providing real-time HD video validation of mine-like objects. This MNS ROV autonomously executes the MLO route for final classification and man-on-theloop validation of each MLO, while the T38 shadows and supports it as an over-the-horizon communications link and countermine charge supply link. The classification, validation and engagement processes are then repeated until the field is cleared.

As stated earlier, the specific COTS systems represent those the U.S. Navy had readily available for the Trident Warrior exercise and were operated together as a proof-of-concept, not as a turnkey, takeit-or-leave-it system. In the rapidly evolving world of unmanned (uninhabited) vehicles, it is all-but-inevitable that more-and-more capable systems will continue to evolve. However, given the urgency of providing the RAN with a near-term MCM solution that has the added benefit of keeping the navy's sailors out of the minefield, it may well be time for Australia to pursue a parallel-path MCM capability while future systems are still evolving.

To be clear, this unmanned MCM solution is not one that is launched with the hope that it will complete its mission without oversight. The concept of operations to employ this system relies on watchstander supervision and input, as well as critical decision making such as neutralizer release, arming, and detonation on mines. This man-on-the-loop approach automates tedious, rote, and repetitive tasks, while at the same time leveraging the most capable processor, a trained sailor, to accomplish the most critical tasks while offsetting them from the point of conflict. Because of this offset, watch-standers will have greater situational awareness and lower task saturation, which reduces fatigue-induced errors.



PLA Navy Conducting Mine-hunting Countermeasures Training in East China Sea, August 2020.

Some have criticized earlier unmanned MCM systems designs as ineffective, pointing out—correctly—that the concept of operations for previously examined systems was far too slow, as the unmanned MCM package needed to continuously return to the mother-ship. [11] This scenario resulted in either long transit times for the USV, or forced the mother-ship to operate perilously close to a minefield. The reason the USN choose these COTS assets for Trident Warrior 2020 was because they did provide the desired single sortie to engage capability. Once launched with its mine-hunting and mineclearing subsystems, the T38 MANTAS has several days endurance at cruise speed and does not need to return to the mother-ship except to refuel.

Based on MANTAS performance in a number of U.S. Navy and Marine Corps exercises, experiments and demonstrations, a T38 embarked in RAN ships can also be fitted with a wide-array of above- and below-water sensors and thus perform a number of other tasks when it is not conductinging the MCM mission. These include: intelligence, surveillance and reconnaissance, intelligence preparation of the battlefield, expeditionary logistics, anti-surface warfare, operational deception and others. These are mission sets that are especially important to Australia's expeditionary formations built around the *Canberra-class* Amphibious Assault Ship.

THAT'S ALL GOOD: BUT IS IT RIGHT FOR AUSTRALIA AND THE RAN?

Peer and near-peer competitors have substantial anti-access and area denial capabilities that can prevent the assured access the RAN must have to accomplish its many missions in the region and beyond. Chief among them is the ability to sow mines to sink or disable ships. Additionally, these same naval mines, snuck into one of Australia's harbors, can seriously disrupt Australia's overseas trade or bring it to a halt altogether.

Defeating deadly mines is a compelling operational concept in search of a solution. As Australia moves forward with multi-billion dollar naval building programs for highly capable capital ships, defense officials must thoughtfully consider what use these ships would be if they were trapped in their home harbor by simple sea mines. Australia needs a robust MCM capability today, not on some distant horizon. Based on what the U.S. Navy has recently demonstrated, a parallel-path COTS MCM solution deserves serious consideration and debate.

The RAN may be able to capitalize on current work on robotic systems being conducted by the Australian Army. For example, During Exercise Talisman Sabre last year, the Army worked with the MAPS



MANTAS T38 USV and USS MONTGOMERY (LCS-8)during exercise Trident Warrior 20 off San Diego (Image USN).

(Mission Adaptable Platform System) Mule, a six-wheeled robotic vehicle made by Queensland company Praesidium Global and able to transport a useful load of up to 850kg. It has also conducted trials with robotic armored personnel carriers.[12] Australia's defense industries are ready and able to continue to evolve unmanned systems for the ADF. This was clearly indicated in the *Robotics Roadmap for Australia*, which explained how the defense sector is harnessing the nation's robotics revolution.[13]

Australians live in a dangerous neighbourhood, and the need to have a robust defense against the deadly threat of sea mines is compelling. The RAN maintains an ambitious program of exercises and experimentation. Inserting a COTS solution MCM capability into one of these events can help accelerate a parallel path solution to provide the ADF, RAN and the Department of Home Affairs with a MCM capability that is lacking—but sorely needed—today.

About the Author: George Galdorisi is Director of Strategic Assessments and Technical Futures for the Naval Information Warfare Center Pacific. Prior to joining NIWC Pacific, he completed a 30-year career as a naval aviator, culminating in 14 years of consecutive experience as executive officer, commanding officer, commodore, and chief of staff. He writes speculative fiction about the future of warfare. He is the author of fourteen books, including four consecutive New York Times bestsellers.



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- [5] See, for example, Brian Kerg, "Mine the Littorals and Chokepoints: Mine Warfare In Support of Sea Control," Center for International Maritime Security, June 2, 2020, accessed at: <u>http://cimsec.org/ mine-the-littorals-and-chokepoints-mine-warfare-in-support-of-sea-control/43996</u>. While the author discusses the ways in which the United States and its allies could employ offensive mining in future conflicts, the tactics, techniques, procedures and technologies he describes could easily be adapted by America's peer and near-peer adversaries.

- [6] "NATO Mine Counter Measures Group One Works in Norwegian Waters," Second Line of Defense, August 18, 2018, accessed at: <u>https://sldinfo.com/2018/08/nato-mine-counter-measures-groupone-works-in-norwegian-waters-august-2018/</u>. This is just one of many articles that identify the extraordinary efforts needed to clear mines, even those that are inert and have been in the water for decades. See also, "NATO Forces Clear Mines off Port of Dieppe," *The Maritime Executive*, April 9, 2020, accessed at: <u>https://www.maritime-executive.com/editorials/royal-navy-clears-mines-offport-of-dieppe</u>.
- [7] Royal Australian Navy, "Naval Building Fact Sheet," August 26, 2020. This document describes the 2020 Naval Force Structure Plan and addresses "Maritime Mine Warfare, Patrol and Geospatial Initiatives" including continuing to build 12 Arafura Offshore Patrol vessels, the Guardian-class Pacific Patrol Boats, six new Cape-class Patrol Boats, and up to eight new vessels optimised for mine-countermeasures and hydrographic survey, potentially based on the Arafura design.
- [8] For more on the planned Offshore Patrol Vessel Program see, Robbin Laird, "Australia Shipbuilding - Implications for Canada: RAN Offshore Patrol Vessel" Frontline, accessed at: <u>https://defence.</u> frontline.online/article/2020/1/14823-RAN-Offshore-Patrol-Vessel.
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- [10] Norman Friedman, ""Gulf War 20th: Naval Lessons of the Gulf War," *Defense Media Network*, February 8, 2011, accessed at: <u>https://www.defensemedianetwork.com/stories/gulf-war-navallessons-of-the-gulf-war/.</u>
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THE DARDANELLES DEBACLE

By Murray Dear

As Europe stumbled towards war in July 1914, First Lord of the Admiralty Winston Churchill requisitioned two super dreadnought battleships being built in Britain for the Turkish Navy. Turkey was infuriated by Churchill's impulsive action and this, plus subsequent events, was to directly lead to the carnage of the Gallipoli campaign. A common factor in the Dardanelles naval war was the ineffectual, bordering on incompetent, leadership of British senior officers. More capital ships were to be lost at the Dardanelles than in any other theatre during World War I.



SMS BRESLAU and SMS GOEBEN circa 1915.

THE ESCAPE OF THE GOEBEN

At midnight on 2 August 1914 the German Mittelmeer (Mediterannean) Division, comprising the battlecruiser GOEBEN and the light cruiser BRESLAU, sailed from the Sicilian port of Messina under the command of Rear-Admiral Wilhem Souchon. They were both modern ships, the GOEBEN being armed with ten 11 inch guns in five twin turrets. While he was south of Sardinia, the energetic Souchon was ordered to sail to Constantinople but he decided to continue his planned attack on the Algerian ports of Philippeville and Bone. These were bombarded early on the morning of 4 August whereupon Souchon returned to Messina to coal. Later that morning, the Royal Navy battlecruisers INDOMITABLE and INDEFATIGABLE were sighted approaching from the east. Britain and Germany were not yet at war and no shots were fired. With a herculean effort, the German stokers got the GOEBEN up to her maximum speed outrunning the pursuing RN battlecruisers.

At Messina, GOEBEN and BRESLAU took on 1,600 and 495 tonnes of coal respectively. As the German ships hugged the shore to round Cape Spartivento on the night of 6/7 August, Souchon was relieved to see only the light cruiser GLOUCESTER waiting. During the eastward chase, the two light cruisers briefly exchanged fire near Cape Matapan. Before this action occurred, Rear Admiral Sir Ernest Troubridge's First Cruiser Squadron comprising the armoured cruisers DEFENCE, WARRIOR, DUKE OF EDINBURGH and BLACK PRINCE should have intercepted and engaged the GOEBEN. Troubridge decided his force was inferior to Souchon's and declined action. He was to be court-martialed for this decision but in hindsight he was probably right. At the Battle of Jutland, DEFENCE, WARRIOR and BLACK PRINCE were to be sunk with the loss 1,831 officers and men. Contact with the German ships was lost after Mediterannean Fleet C in C Admiral Sir Archibald Milne ordered GLOUCESTER to turn back. After coaling again on 9 August at Dhenousa Island, GOEBEN and BRESLAU arrived off the Dardanelles the following day. A Turkish torpedo boat led them in single file around the minefield to Chanak (now Canakkale) where they anchored. Turkey announced that GOEBEN and BRESLAU would be bought for 80 million marks as replacements for the two dreadnoughts rashly sequestered by Churchill and Souchon became Comander in Chief of the Turkish fleet while remaining in command of the Mittelmeer Division.

SOUCHON'S FLEET

The Turkish fleet inherited by Souchon was a motley collection of ships comprising three elderly pre-dreadnought battleships, a coast defence ship, two cruisers, eight destroyers, nine torpedo boats, ten gunboats and a small minelayer. The battleships HEIRREDEN BARBAROSSA and TORGUD REIS were ex German *Brandenburg-class* ships with a main armament of six 11 inch guns in three twin turrets. The positively ancient MESSUDIEH had been totally reconstructed between 1898 and 1903 but the main armament of two single 9.2 inch guns was never mounted and wooden dummies were carried together with a secondary armament of twelve 6 inch guns.

Apart from GOEBEN and BRESLAU, the Turco-German fleet was not a significant threat to the Anglo-French Mediteranean fleet. However, it was a match for the Russian Black Sea fleet which comprised five pre-dreadnought battleships, a very old reserve battleship, two cruisers, twenty six destroyers, two gunboats, ten torpedo boats and eleven submarines.



HM Ships INDOMITABLE, INFLEXIBLE, INVINCIBLE and INDEFATIGABLE in 1911.

On 27 October the Turco-German fleet attacked the Russian Black Sea ports of Odessa, Feodosia, Novorossiysk and Sevastopol. Russia declared war on the Ottoman Empire on 2 November followed by Britain and France on 5 November. During the war there were to be several clashes in the Black Sea between the Turco-German and Russian fleets which fall outside the scope of this essay.

A MIGHTY CLEVER PIECE OF WORK

Even before war was formally declared, Churchill ordered British and French warships waiting in the Aegean Sea for the GOEBEN to shell the twin forts at the entrance to the Dardenelles. This brief and ineffectual gesture spurred the Turks and Germans to improving their defences. This included stationing the MESSUDIEH near Chanak as a floating artillery battery to cover the Turkish minefields.

While the performance of many senior naval officers left much to be desired, more junior officers, particularly the submarine commanders, displayed boldness and resolution. While battlecruisers and other warships took up blockade stations off the Dardenelles, an Anglo-French submarine flotilla under the command of Lieutenant Commander P.H. Pownall was established at the port of Mudros where the depot ship HINDU KUSH was anchored. This flotilla included the small, elderly B9, B10 and B11 from Malta, sister boats B6 and B7 from Gibraltar plus the French FARADAY, LEVERRIER, COULOMB and CIRCE.

The idea of an underwater raid on Turkish shipping in the Chanak area was submitted to newly appointed C-in-C Vice-Admiral Sackville Carden who gave tentative approval. The French boats were not suitable and of the five British submarines available, only B11 under the command of Lieutenant Norman Holbrook possessed the necessary underwater endurance. B11 cast off from HINDU KUSH at 3.00am on 13 December and dived off Cape Helles just before dawn. It was soon necessary to surface again to remove a hydroplane guard which had come loose. After running blind for an hour through the Turkish minefields at 80 feet, B11 was brought to periscope depth off Chanak. After studying the shipping off Chanak, Lieutenant Holbrook turned his attention to Sari Siglar Bay to the south-west where he located the moored MESSUDIEH. After drifting closer with the current, Holbrook fired two torpedoes one of which struck the battleship. The Turkish gunners remained at their posts and a barrage of exploding shells churned the sea around B11's persicope, but within ten minutes the MESSUDIEH had capsized.

B.11's run back through the Straits was not without difficulty. The compass flooded, the submarine struck mudbanks and exploding shells from coastal artillery surrounded the submarine until



HMS BLACK PRINCE (1904).

deeper water was reached. Five lines of mines had to be traversed at periscope depth and it wasn't until 2.10pm that B11 surfaced off Cape Helles. The air in the boat was by then so foul it took half an hour before there was sufficient oxygen for the petrol engines to start. Norman Holbrook was deservedly awarded a Victoria Cross for this exploit. On being asked what he thought of Holbrook's achievement, the local German commander, Vice-Admiral Merten, admitted, "It was a mighty clever piece of work."

FORCING THE DARDENELLES

With a stalemate now on the Western Front, Churchill prepared a naval plan to assault the Dardenelles with pre-dreadnought battleships not required elsewhere. This plan was presented to The War Council on 13 January 1915 which unanimously agreed "that the Admiralty should prepare for a naval expedition in February to bombard and take the Gallipoli peninsula with Constantinople as its objective." As the Anglo-French fleet gathered for the offensive, the elderly New Zealand cruiser PHILOMEL was ordered to harass the Turks in the Gulf of Alexandretta (now Iskenderun) as a diversion. On 8 February a landing party of two officers and fifteen ratings encountered a strong force of Turkish troops. In the heavy fighting, three men from the landing party were killed and three were wounded. These casualties included the first New Zealand serviceman killed on Turkish soil.

Admiral Carden requested twelve battleships, three battlecruisers (to deal with the GOEBEN), four light cruisers, sixteen destroyers, six submarines, twelve minesweepers (with civilian crews) plus some seaplanes and small auxiliary vessels for the task. The Admiralty agreed with Carden's shopping list and also gave him the new super dreadnought QUEEN ELIZABETH with eight 15 inch guns which was about to undergo gunnery trials in the Mediterranean. The Dardenelles were defended by the Turks and Germans with around 100 guns in eleven forts plus torpedo tubes, searchlights and minefields; but the artillery was short of shells.

Using the QUEEN ELIZABETH as his flagship, Carden began a deliberate long range bombardment on the morning of 19 February. Little effect was discernable from the battleships which withdrew in the late afternoon. The weather then closed in forcing a delay for six days. On 25 February, Carden's second in command, Vice-Admiral John de Robeck, led a fiercer bombardment which resulted in the Turks and Germans abandoning the forts at the mouth of the



Ottoman Ship MESSUDIEH (MESUDIYE) in 1914.

Dardanelles. By 2 March Carden signalled that he hoped to be in Constaninople in fourteen days. His confidence was to be premature as the minesweepers (requistioned trawlers) struggled against the strong current while being shelled from mobile howitzers. Despite repeated attempts by the minesweepers, little progress was made and Churchill was getting impatient. The irresolute Carden was in failing health and de Robeck took command of the fleet for a planned grand attack on 18 March.

At first all went well with QUEEN ELIZABETH leading a massive bombardment against the shore defences. Major hits were taken by three battleships but they were saved by their armour. As the French battleships retired, the BOUVET blew up and sank with the loss of 640 lives. While the bombardment continued, the battlecruiser INFLEXIBLE struck a mine and limped away badly damaged. The battleship IRRESISTIBLE then took a hit below the waterline and was abandoned except for a handful of officers and men. The OCEAN and SWIFTSURE were ordered to come to the aid of IRRESTIBLE but valuable time was wasted firing at the forts instead of concentrating on the salvage attempt. The OCEAN was then rocked by an explosion and began to list. The crew were taken off and during the night it sank along with the IRRESISTIBLE.

De Robeck was depressed by the losses and despite the promise of an additional five battleships, the attack was abandoned on 22 March. The defending Turks and Germans were jubilant at their great victory. It was only after the war it was learned that the three battleships and the battlecruiser had all entered a small field of 26 mines laid along the Asian shore ten days before the assault by the Turkish minelayer NUSRET.

SUPPORTING THE INVASION

As the naval attack foundered, plans were made for an amphibious assault on the Gallipoli peninsula. This would involve five divisions including two divisions of the Australia and New Zealand Army Corps (Anzac). The tenacity of the Turks to defend their homeland was again underestimated. As the troops went ashore, the battleships were to provide naval gunfire support.

Following the success of B11, both sides recognized that submarines could have a significant impact on the campaign. An urgent request for a flotilla of Royal Navy's latest *E-class* boats to be sent to the Dardanelles was granted without delay or argument. Meanwhile, the Germans established a half-flotilla of five U-boats in the Adriatic at Cattaro plus a division of eight U-boats at Constantinople which was to focus on operations in the Aegean and the Black Seas.

It was intended that the *E-class* boats would pass through The Narrows and operate in the Sea of Mamara where they would attack



Ottoman Ship MUAVENET-I-MILLYE.

the Turkish sea lines of communication to the Gallipoli peninsula. The first Allied submarine to break through to the Sea of Marmara was the Royal Australian Navy submarine AE2 under the command of Lieutenant-Commander Henry (Dacre) Stoker. The AE2 sailed on 25 April as the the invasion commenced but was sunk, with no loss of life, on 30 April by the Turkish torpedo boat SULTANHISAR.

The land campaign quickly ground to a halt and trench warfare on the Western Front pattern ensued. On 13 May the German built Turkish destroyer MUAVENET-I-MILET slipped out and sank the battleship GOLIATH with the loss of 570 officers and men. Worse was to come. The U21 under the command of Kapitanleutnant Otto Hersing sank the battleship TRIUMPH at her battle station off Gaba Tepe on 25 May. Quick action by the destroyer CHELMER and other nearby craft reduced the death toll to three officers and 70 men. It was a sobering sight to the Anzac troops ashore. Two days later U21 struck again. This time the victim was the elderly battleship MAJESTIC which capsized and sank in shallow water with the loss of 40 lives. The continued operation of battleships off Gallipoli was clearly untenable and shallow draft monitors were sent to replace them on the gun line.

Meanwhile, the *E-class* boats were having success in the Sea of Marmara. E14 under the command of Lieutenant-Commander Edward Boyle sank the transport GUL-DJEMAL on 10 May. All 6,000 Turkish troops aboard perished. E11 under the command of Lieutenant-Commander Martin Nasmith followed and created more havoc with Turkish shipping. Boyle and Nasmith were both subsequently awarded the Victoria Cross for their exploits. On 8 August, Nasmith was to avenge Allied battleship losses when E11 torpedoed the HEIRREDIN BARBAROSSA off Constantinople. The battleship sunk with the loss of 253 lives.

As the fighting dragged on with ever increasing casualties but with no practical reward, the decision was taken to end the ghastly fiasco and withdraw all troops from the Gallipoli pensinsula. Despite predictions of high losses, the final evacuations from Suvla and Anzac Cove on 20 December 1915 and Cape Helles on 8-9 January 1916 were carried out with remarkably few casualties. The officers who organised the evacuations were clearly more competent than those who planned the assault. Many reputations were lost during the campaign, including Churchill who was forced to resign. The only senior naval officer to emerge with any credit was Commodore Roger Keyes whose drive and ability was sorely lacking amongst his contemporaries.

THE BATTLE OF IMBROS

Following the evacuations, an observation force was left to cover any future breakout by the GOEBEN (Turkish YAVUZ) and BRESLAU (Turkish MIDILLI). The Aegean Squadron, comprising two powerful pre-dreadnoughts LORD NELSON and AGAMEMNON, a French and a British cruiser plus the monitors RAGLAN and M28, was by early 1918 under the command of yet another ineffectual officer, Rear-Admiral Arthur Hayes-Sadler. The two battleships were usually based at Mudros Bay, Lemnos and the monitors were stationed at Kusu Bay, Imbros.

After the Armistice with Russia in late 1917, the Germans and Turks turned their attention westward to the small naval force stationed off the Dardanelles. The Turco-German force comprising the GOEBEN/YAVUZ, BRESLAU/MIDILLI, four Turkish destroyers and the German submarine UC23 was under the comand of Vice-Admiral Hubert von Rebeur-Passchwitz. The plan was to attack the British monitors at Imbros and other shipping off the Dardanelles then retire before the two battleships could intervene. UC23 would lay mines off Mudros and wait for a target as the British responded.

On the morning of Sunday 20 June 1918, the destroyer HMS LIZARD sighted a four funnelled cruiser emerging from the Dardanelles followed by the unmistakeable shape of the GOEBEN. The LIZARD immediately signallled "GOBLO....GOBLO" (GOEBEN and BRESLAU out) but, inevitably, it took the Aegean Squadron by surprise. The two monitors, which were designed for coastal bombardment and not fighting enemy warships, were quickly overwhelmed and sunk. The LIZARD fought valiantly and only escaped destruction due to violent evasive action. The only assistance to come to her aid was the destroyer TIGRESS and two Royal Naval Air Service biplanes. Hayes-Sadler had sailed on 16 January to Salonika (now Thessaloniki) to confer with with British Army Headquarters but as his personal yacht was not available he set off in the LORD NELSON leaving the AGAMEMNON alone to face the GOEBEN.

On emerging from the Dardanelles, the GOEBEN had struck a mine but this caused only minor damage. While on their way to shell Mudros, disaster struck as GOEBEN and BRESLAU sailed into a minefield. BRESLAU sank after detonating five mines while GOEBEN, which detonated a further three mines, was able to retire at much reduced speed. As these events were unfolding, the two British destroyers turned their attention to the four Turkish destroyers which had now come out of the straits. After one of the Turkish ships had taken several hits, all four destroyers retired taking no further part in the action.

As the limping GOEBEN manouvered to clear a defensive minefield near Nagara Point, the battlecruiser grounded firmly on a sandbank. There was now an opportunity for the GOEBEN to be destroyed by the Aegean Squadron but Hayes-Sadler dithered while his seaplanes mounted minor bombing attacks which caused little damage. It wasn't until 28 June that the submarine E14 was ordered to make a dawn attack but by then it was too late. With the assistance of TORGUD REIS, GOEBEN had been freed off the sandbank the previous afternoon. E14 was to be sunk by gunfire from shore batteries and patrolling destroyers. Both sides could take little satisfaction from the last significant naval action of the war. On 30 October 1918 the Turkish armistice was signed onboard AGAMEMNON before she and her sister battleship LORD NELSON passed through the Dardanelles.



HM Submarine E11 torpedoes the STAMBOUL off Constantinople, 25 May 1915.

CONCLUSIONS

Like the ground battle, the naval war for the Dardanelles achieved little for much sacrifice.

All the battleships sunk were pre-dreadnoughts designed before the threats of mine warfare and submarine torpedo attack were fully understood. In essence, they had armoured decks, turrets and hulls above the waterline, but eggshell bottoms. With poor underwater protection and subdivision, a single detonation was usually sufficient to be fatal.

From an historical perspective, the precipitate decision taken by Churchill in 1914 to requisition the Turkish battleships RESHADIEH and SULTAN OSMAN I ultimately led to the dismemberment of the Ottoman Empire and this outcome still reverberates throughout the Middle East today. ■





CHINA AS A TWENTY FIRST Century Naval Power

Michael A. McDevitt USNI Press, Fall 2020 ISBN-10: 1682475352 ISBN-13: 9781682475355 Hardcover: \$55.00

Rear Admiral Michael McDevitt USN (Ret.) had a 34-year naval career, including four at-sea commands, and command of an aircraft carrier battle group. He spent his operational career in the Pacific, including a two-year assignment in Sasebo, Japan. He was Chief of Naval Operations Strategic Studies Group Fellow at the Naval War College; Director of the East Asia Policy Office for the Secretary of Defense and served as the Director for Strategy, War Plans and Policy (J-5) for U.S. CINCPAC (Now INDOPAC) before concluding his activeduty career as Commandant of the National War College. He founded the Center for Naval Analyses (CNA) Strategic Studies division in 2000, and since stepping down as a Vice President in 2012 has been active as a Senior Fellow, leading several major projects related to maritime disputes in the East and South China Seas and China's ambition to become a "great" maritime power.

CNA traces its history back to WW2 and to two remarkable founders: Philip Morse (a relatively young physicist working on acoustics) and Captain (later Vice Admiral) Wilder Baker USN, commander of the newly formed Anti-Submarine Warfare Unit of the Atlantic Fleet. In April 1942 Captain Wilder Baker, enlisted MIT professor Philip Morse to lead an operations research team (ORT) to help the Navy's Antisubmarine Warfare Operations Research Group (ASWORG). CNA traces its history back to the ASWORG, although in actuality it was formed in name in 1962.

There are perhaps three issues that readers need to bear in mind regarding the progeny of CNA and this book's authorship:

- 1. CNA was the product of a remarkable and largely experimental fusion of civilian scientists and military professionals that is, perhaps, only possible in times of existential crisis against a common enemy.
- 2. The experimental centers, operating largely as informal, connected networks (in Australia, the UK (for example Bletchley Park) and other Commonwealth countries (including India, South Africa, and Canada)) were able to replicate themselves. In this case, from ASWORG, to Operations Evaluation Group (OEG, 1945); to CNA. They also provided the social meeting spaces, offices and secretariats that could "answer the phone" in Kissingerian terms and address complex questions with like-minded Allied entities. These connected expert networks continued to be effective into the 1970s.
- 3. The Military Industry Complex, warned of by President Eisenhower; a logic-positivist approach to management (confused and conflated as leadership); and the rule of Performance Management – administered through accountants and management consultants – killed off these "centers". They were too imperfect to exist within Government – and so were conveniently "privatised". In the process, removing the very informal-formal memberships that enabled these networks to continue to speak "truth to power".

Born shortly after WW2, Admiral McDevitt came of age in the 1960s when he joined the US Navy; was maturated in 1990 as Director of the East Asia Policy office for the Secretary of Defense; and came of Flag Rank in the 1990s, prior to retirement. In many respects, when the author was "growing up" in the USN, he was the net beneficiary of the remarkable revolution in military thinking that occurred during WW2. He still had around him people who he could ask questions such as "how does this work", and who could still show him the skeletons. There were shadow networks that remained in existence, of course, but these were increasingly on the edges of academe. An academe that, during this same period, had rejected behaviourism, statisticism, mathematicism and scientism as a philosophical basis of truth-finding – or empiricism. Following the Vietnam War (which impacted the U.S., Australia, and New Zealand); the campaign for nuclear disarmament; MAD; civil rights campaigns; and the rise of post-modernism, the division between the social and the physical sciences became almost irrevocable. Driven further apart by the commodification of Higher Education and Research, at the expense of the public commons.

So what? The great strength of this book is that it is based on detailed research and analysis, that befits CNA. It is delivered by an author who was, indeed, properly educated. It is also its weakness, since many of the people who should be reading this work – in their 30s and 40s (Gen Y and the older Millennials) – no longer read. And, if they do, then its largely by "cut and paste" – without actually immersing themselves in the science or discipline. Whereas, these generations may have a full understanding of their rights, they might no longer understand the values and individual responsibilities that necessarily underpin these rights. In other words, they understand the cost of everything but may not comprehend their intrinsic aesthetic values.

By contrast, a PLAN Officer reading this book in its translated form - and it will have been translated many times over by now - will be digesting and understanding the nuances and ploys to inform their own strategic thinking, and judgments. While the West may rightly criticise the CCP for its excesses; its genesis of COVID-19; its human rights abuses (against the Uighurs and Hong Kong); its expansion into the South China Sea; its environmental and climate desecration; and its encroaches against Taiwan - China, unlike the West, is not standing still. As my good friend Dr Kim Kagan once observed, "the Roman Empire began to fail as soon as its idea - its pax – stopped expanding". [1] It could no longer absorb, nor wanted to, those others into its peace. At Hadrian's Wall - which Kim, Fred and I visited together in 2006, before the "Surge" - the Roman Empire metaphysically ended. As the author comments: "during the Cold War, Washington saw its competition for access as a zero-sum game. That is not the case today, as the case of Djibouti illustrates. If there is a game for influence today it is between New Delhi and Beijing; Washington is not [yet] playing".

In conclusion, McDevitt posits that "the PLA objective, once it has decided to launch a military campaign that is likely to trigger U.S. involvement – most probably against Taiwan, with attacks on American air and naval forces stationed in Japan or at sea in the vicinity of the first island chain – is to deal promptly with these U.S. first responders." Today this is a pressing threat within the Grey (just short of war) era of *wolfpolitick*, as described by *The NAVY*. Finally, McDevitt observes that for the first time since President Roosevelt:

If a conflict with China erupts, the president will be the commander in chief of a navy that will have to fight to gain, and then to maintain, sea control almost anywhere in the western Pacific.

Is the experiment that is the western liberal and societal concepts of democracy dead? No. The principal democracies, including the U.S., India, Australia, France, the UK, Israel, Japan, Taiwan, South Korea, Indonesia, the Philippines, and Canada, are all going through an existential step change. The idea is not dead; nor the commonwealth of the seas. This must worry the CCP more than anything – hence their desire to bring the fight forward. As in all Communist tactics, to hit the enemy when they are down – which led to the victory (from Land to Sea) of the CCP against the ROC in 1949. As Churchill said in Ottawa in 1942, after being told by the collaborateur Pétain (in 1940) that Britain would "have its neck wrung like a chicken" – Some Chicken; Some Neck!

[1] Kagan, K., The Eye of Command. 2006, Ann Arbor, Michigan: The University of Michigan.



THE NAVY LEAGUE OF AUSTRALIA ANNUAL MARITIME AFFAIRS ESSAY COMPETITION







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Prize-winners announced in the January-March 2022 Issue of The NAVY.





