

THE NAVY

THE MAGAZINE OF THE NAVY LEAGUE OF AUSTRALIA

**CHINA'S BELT & ROAD
INITIATIVE PARALLELS
IMPERIAL JAPAN'S
EXPANSION DOCTRINES**

**NUCLEAR PROPULSION
ROADMAP FOR AUSTRALIA
– THE WAY AHEAD**

**THE PRICE OF
ALLIANCE**

**REBUILDING THE
COMMONWEALTH
NAVIES – PART 2**



**THE CREATION AND ESTABLISHMENT OF
THE JAPANESE NAVY – PART 4**

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Front cover:

Australian LHD HMAS Canberra in First Amphibious Exercise with M1A1-MBT-2.
Image by ABIS Leo Baumgartner.

07 REBUILDING THE COMMONWEALTH NAVIES – PART 2

By David Hobbs

11 THE PRICE OF ALLIANCE

By William R. Alston

17 NUCLEAR PROPULSION ROADMAP FOR AUSTRALIA – THE WAY AHEAD

By Christopher J. Skinner

26 THE CREATION AND ESTABLISHMENT OF THE JAPANESE NAVY – PART 4

By Kanazawa, Hiroyuki, and Reay Atkinson, Simon

33 CHINA'S BELT & ROAD INITIATIVE PARALLELS IMPERIAL JAPAN'S NORTHERN/SOUTHERN EXPANSION DOCTRINES

By Jon Duggan

REGULAR FEATURES

- 02 From the Crow's Nest
- 04 League Policy Statement
- 05 The President's Page
- 06 Letters
- 23 Flash Traffic
- 25 Red Duster
- 36 Book Review

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RN HMS SOMERSET (F82) a 30-year old Towed Array Frigate designed to Patrol the Greenland-Iceland-UK (GIUK) Gap.

FIGHTING WITH WHAT WE HAVE

The final issue of 2019 and what, in retrospect, may be seen as a hinge year – between the great recession (rapidly entering its third and potentially final phase) and an as yet uncertain and undefined future – completes with five topical papers. Paper 1, the second by David Hobbs, considers “how the Commonwealth Navies might be rebuilt”; paper 2 (by William Alston) considers “the price of alliance” between Australia and the UK with the U.S., in terms of NATO, the UN, 5 Eyes, and ANZUS. This leads into Christopher Skinner’s essential third paper providing “a nuclear propulsion roadmap” for Australia’s future submarines. All three papers provide a useful backdrop to Pacific 2019 and the International Maritime Exposition (International Convention Centre Sydney, 8-10 Oct) – bookended by the 5th Submarine Institute of Australia (SIA) Submarine Science, Technology and Engineering Conference 2019 (SubSTEC5), Esplanade Hotel Fremantle, 18-21 November 2019. No less important and maintaining the Indo-Pacific theme, is paper 4 (by Hiroyuki Kanazawa and Simon Reay Atkinson), considering the creation and establishment of the “Japanese Navy, the war years, 1925-1945”. This is the last of the Japanese Naval History series, for which *The NAVY* is most grateful. In particular, to Captain Shinsuke Amano JMSDF, the recent Japanese Naval Attaché to Australia – who did so much to make the series happen and to strengthen relations between both countries. Thank you. The final paper, by Jon Duggan, is a part rejoinder to the Japanese series, in particular the history leading up to Japanese expansionism between the wars and drawing parallels with Chinese new silk road ambitions in the 21st Century. Placed in context, all five papers relate in part or whole to the Indo-Pacific region.

The quote ascribed to Vegetius (*si vis pacem, para bellum* – if you want peace; prepare for war) may be one element of the complex equation the Global West currently faces. The key verb is preparation, and *preparing* for war. In 2006, when considering the pending strategic failure of the UK (in Iraq and Afghanistan) – identified in part in the UK Public Affairs Select Committee Report (*Who Does UK National Strategy*) [1] – Christopher Donnelly CMG



The day after Trafalgar HMS VICTORY trying to clear land under tow by the Frigate HMS EURYALUS (28) Nicholas Pocock (1810) Image National Maritime Museum.

[2] stated: “We [the Global West] have to stop thinking with a peacetime mentality”. Far be it for *Aeneas* to take on the classics, but at this stage in our long history “we cannot prepare for war, largely because we are locked into broken peace time models and associated thinking”. For example, the perfidious nonsense of performance management that since the 1980s – with Post Modernism – has done so much damage to Western institutions (including universities, research, industry, the Public Service, and Defence Forces). A contemporary interpretation of the Vegetius maxim may necessarily be:

cogitare bellum, para pax – to think of war, prepare for peace

If the Global West is serious about wanting peace, it needs to start thinking about war. Fundamental to thinking about war, is preparing the peace one wants to secure, and how this is to be achieved. Which is both an ethical and moral proposition.



(L-R) Chief of the New Zealand Defence Force, Air Vice Marshal Kevin Short, CO HMAS COLLINS, Commander Robin Dainty, RAN and Chief of the Australian Defence Force, General Angus Campbell AO DSC.

On 20 July 1798, at the most trying point of the campaign after he had returned to Syracuse without locating the French expedition to his east, Nelson wrote to St Vincent bitterly regretting his want of frigates, especially since St Vincent had deprived himself of such vessels 'to make mine certainly the finest squadron in the world'. [3] Two weeks later, after the battle of the Nile (1 August, 1798), echoing Queen Mary's bitter regret (in 1558) for the loss of the last English possession in France: "When I die, 'Calais' will be found written on my heart", Nelson exclaimed:

"Were I to die at this moment, want of frigates would be found stamped on my heart!"

Western fleet refresh rates (FRR) identified by Rubel [4] and Blake [5] are far too small to allow a) for fleets to grow and b) to be refreshed in a timely way. The current FRR for many Western navies is in excess of 40 years, and going right. Fleets are also struggling to crew ageing artefacts, so mis-fitted have they become in both war and peace. Other than for submarines, ships are designed to fight yesterday's war; not secure tomorrow's peace.

The full *Dönitz-cycle* – previously described in *The NAVY* – is for 4.5 ships to support one submarine on continuous station/patrol. The 0.5 refers to the portion of a ship in design and build – providing a commissioning rate of ships a year, per patrol. This could provide a realistic Fleet Refresh Rate of 15 years – selling the ship at its half-life, in the 16th year. The Global West has not the shipyards, or peace time preparations, currently to envisage such a scale and re-composition of its arsenals. As critically, poorly brought up peacetime politicians, senior officers and public servants – used to

years of cuts and scrimping – are often intimidated and unable to think at scale and capacity. And the Prime Defence multinationals, convinced by the virtues of value for money and increasing buck for ever lesser bang [6] – make their profits from depreciation and hedging; not appreciation and building. Further stripping asset and knowledge from countries, militaries and public institutions. The second Chinese naval wave – the pacification wave – will arise in about ten years' time, when PLAN sells-on its relevant/affordable frigates and destroyers at their half-lives. When the West has none to sell, or only 40+ year-old ships, one gasp from the knacker's yard. Concomitantly, further removing the Global West as the main maritime provider of affordable ships to small/medium sized navies. Many of whom are in our region and increasingly, through the immoral tyranny of impositional rights, sympathetic towards China.

The Royal Navy is, sadly, a case in point. Realistically, to provide the cover it needs across ten identifiable commitments – including a continuous presence in the GIUK gap – the RN requires 40 Frigates and Destroyers (24 FF and 16 DD). On a good day – noting the RN's inability to crew its Frigate Force and that only one or two of its destroyers are operationally deployable – the RN can mount about 13 frigates and destroyers; covering about 15% of its commitments. The Iranians and others know this – which is why the UK's bluff has been called. It cannot sustain its presence in the Gulf in any meaningful way, other than with the US Navy. And the US Navy has challenges of its own. The RAN, with its reinforced commitment to the Middle East (announced by the PM this August), is also challenged. To sustain the RAN Fleet-in-Being, today, would require a *Dönitz-build* rate of about 3 ships a year; growing to 4 ships a year by 2035. The RN needs to commission 5 ships a year and the USN 18, just to maintain current fleets. Commissioning rates are not at this level – although Australia has come closer than most Western navies in recent years.

Today's designs are wrong-headed and builds too few, too lengthy, and no longer fitted to crews or weapon systems. The Global West cannot prepare for a future peace, without thinking about war and the weapons it will need to fight that war. It is largely unprepared – its fleets denuded by years of peace-time thinking. The Chief of Defence Force, Angus Campbell AO DSC, stated *inter alia*:

"this... asks [us] to look ahead to war in 2025; to be interested in war, interested in a war so near it will definitely and personally be interested in me and all of you... In capability-development terms, 2025 is essentially today, and we'll be fighting with today's ADF and our inter-agency partners" [7].

We will be fighting with what we have. Let us take stock. What we have is not bad, and the quality of our sailors and young people as rugged and indomitable as ever. The Global West will "not go meekly into the dying light or gently into the night". We will persevere and overcome – we may only just have begun. ■

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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.

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. 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 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.
- Welcomes the 2016 Defence White Paper and 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.
- with a further increase in the number of new proposed replacement frigates and Offshore Patrol Vessels, noting the escort requirements of our 5 new major warships, 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 Naval Reserve and Australian Navy Cadets organisation.
- Advocates urgent Government research and action to remedy the reported serious naval recruiting and retention problem.

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 concept of a Navy capable of effective action in war off both the east and west coasts simultaneously and advocates a gradual 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 general area.
- Considers that the level of both the offensive and defensive capabilities of the RAN should be strengthened, in particular

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.
- While recognising budgetary constraints believes that, given leadership by successive governments, Australia can defend itself in the longer term, within acceptable financial, economic and manpower parameters.



Night Operations of F-35B Lightning II Operating from HMS QUEEN ELIZABETH (R08). Image RN.



RAN LHD LLC (L4408) carrying M1A1 Abrams Tank.

OUR COVER – AN AMAZING EXPEDITIONARY STORY

In July this year for the first time an LHD Light Landing Craft (LLC) embarked an Australian Army M1A1 Main Battle Tank, with the Chief of Navy declaring:

“Our amphibious capability stands ready to defend Australia and our national interests”.

On our front page you will see the very important image of a modified LLC carrying an Australian Army M1A1 Abrams Main Battle Tank from the dock of HMAS CANBERRA (L02) for the very first time.

The Commanding Officer of HMAS CANBERRA, Captain Terry Morrison RAN noted how very proud he was of the skills on display by the Leading Seamen who are in command of the landing craft and their crews who are adept in manoeuvring the large loads safely to the beach.

In the words of the Director of the RAN Test and Evaluation Authority, Captain David Frost RAN:

“The focus and professionalism of numerous people across Navy and Army has resulted in a significant capability enhancement for the ADF and we look forward to building on this capability as we mature the Maritime Warfare Centre”.

To put it differently though, I’m aware that Navy was told it couldn’t be done. But in the finest Australian traditions, of course, and as a result of the application of the ingenuity and initiative of Navy sailors, engineers, and technicians working with their Army and civilian counterparts, this great technical and operational advance was achieved for Australia.

The M1A1 embarked in the LLC is a prime example of expeditionary warfare of the first order, with the expeditionary mindset this requires – and a real achievement led by junior officers, warrant officers, and senior ratings – supported by the Coxswains (many at Leading Seaman rank) who command the LLCs.

The LLCs fly the White Ensign and are under the command of a Leading Hand. As such, with its M1A1 Abram tank embarked it is a 120tonne warship carrying a significant element of Australia’s expeditionary sovereign capability. With a gun that could actually also fire from the LLC all under the Command of a Leading Hand or Corporal equivalent...this bodes well for the future of the ADF.

By extension, it is worth applying this expeditionary mindset to the LHDs themselves and considering their usefulness in conjunction with fixed wing aircraft. No doubt many of you have considered the ability of the LHD to operate F35Bs in short take off / vertical landing mode from the LHD. It is worth serious investigation and testing to confirm that initially, this could be undertaken using

the current LHD configuration ‘lily-pad’ like, later to be a stepping stone, with minor modifications, to an indigenous fleet air arm fixed wing capability. I look forward to hearing from you as to how it can be done.

THE AGM OF THE NAVY LEAGUE OF AUSTRALIA

The AGM of the Navy League of Australia is on again in October. Details of the meeting are contained in this edition. I encourage all members to attend the AGM, it is an opportunity to further explore the important issues which are canvassed in this *The NAVY: The Magazine of the Navy League of Australia*, to hear guest speakers address emerging naval matters and mix with like-minded members. I hope you are all able to attend.

At the time of the AGM Federal Council also reviews the Navy League’s guiding Statement of Policy, which I continue to encourage you to review at each opportunity. It is the statement of our direction and guidance. Let us know if there are areas that need to be updated or issues that need to be added.

Another important issue that the League has been addressing in recent years and will again revisit this year is our own future, the best application of our resources and how to maximise our contribution to the national debate.

As a maritime nation, with a coastline over 32,000 nautical miles, reliant on the sea for 98% of our exports, we are dependent on free navigation for shipping for the conduct of our maritime trade, security and prosperity. Our regional neighbours expect of us cooperation, assistance in countering terrorism, and a contribution to the maintenance of international law and a rules-based order. It behoves us all to keep before the Australian people our view that a strong navy and a capable maritime industry are vital to our freedom and prosperity.

The League’s contribution to the national debate and the shape of our Navy is dependent upon us all and I encourage you to stay involved to shape the future of the Navy League and the nation.

IN THIS ISSUE

In this edition you will find more great reading, including the completion of David Hobbs’ series on the rebuilding of Commonwealth Navies, and important contribution on nuclear powered submarines by Christopher Skinner, an historical perspective on alliances by William Alston, the last in the Japanese Navy History series as well as a comparison of the Chinese One Belt and One Road initiative with pre-war Japanese expansion.

I commend this edition to you and, as always, encourage your feedback.

Happy reading. ■

CORRIGENDUM

The paper George Gadorisi ((2019) 'The Importance of the International Law of the Sea to Australia's Growing Role as a Maritime Power' (First Place Navy Essay Competition, 2018 - Professional Category) published in *The NAVY – Magazine of the Navy League of Australia*, Vol 81, No. 1, pp. 25-28) was based substantially on the paper by Commodore Sam Bateman RAN and George Galdorisi ((2012) 'Promoting Australia as a Maritime Power – The Significance of the International Law of the Sea' which was published in A. Forbes (Ed.), *The Naval Contribution to National Security and Prosperity - Proceedings of the Royal Australian Navy Sea Power Conference 2012*. Canberra: Sea Power Centre) and so should have been acknowledged as being a jointly authored work or with the earlier work properly attributed. Lessons have been learned and a fulsome apology proffered by Captain George Gadorisi and graciously accepted by Commodore Sam Bateman. Readers will likely be aware that both authors have made significant contributions to their respective navies and to the maritime discipline as a whole and we are grateful for that contribution.

In the past decade, *The NAVY* has raised its academic standing, and in-line referencing/quotes are now common in most papers. Notwithstanding, the Editorial Board has to accept in good faith that submissions are 'own work' and/or are appropriately attributed and referenced by authors. For the purposes of the Essay competition, *The NAVY* Magazine will look for assurance that this is the case for future entries.

HMNZS MANAWANUI

Dear Editor,

The recently commissioned hydrographic and diving support vessel HMNZS MANAWANUI is actually the fourth RNZN vessel with this name. The first MANAWANUI was commissioned as a dockyard tug in 1948 and then served as a diving tender from 1953 to 1978. MANAWANUI (II) was commissioned as a diving tender in 1979 and served to 1988 when it was renamed KAHU and became a training vessel. MANAWANUI (III) (ex STAR PERSEUS) was built as a diving ship for the North Sea oilfields and based at Aberdeen. Purchased by the RNZN, it was commissioned as a diving tender in 1988 and served until 2018 when it was decommissioned and sold. Apart from short breaks between commissions there has been a MANAWANUI in RNZN service for the past 70 years.

Yours sincerely

Murray Dear
Hamilton NZ



THE BATTLE FOR AUSTRALIA

Dear Editor,

Re: The article *The battle for Australia – A different perspective*, Andrew Robertson, (RADM, AO DSC, RAN, Rtd.) Simply put I would like to say how much I enjoyed the article, particularly the great reference to history and how we should reflect upon it and hopefully learn from it. I also agree wholeheartedly that we should be spending more than our mere 2% of GDP.

It is my view that we should build our Army/Navy/Air force up now because as one senior RAAF Officer said "If something goes wrong, you fight with what you've got!"

Kind Regards

Roger W Jones
Qld

ERRATUM

Dear Sir,

The photograph is not of VADM Chuichi Nagumo (*The NAVY*, Jul-Sep 2019, p. 27). The officer is in fact ADM Osami Nagano. Nagano was not at Coral Sea. He was in fact Chief of the Navy General Staff from April 1941 to February 1944.

Regards

Martin Rochester

A number of readers, including Admiral Andrew Robertson AO, DSC, RAN (Rtd.) and Jean Teasdale (Exec, NL Victorian Division), identified that the photo in the article "The Battle for Australia"? is of Sir Anthony Monckton Synnot (Chief of Navy 1976-1979) and not Vice Admiral Sir John Gregory Crace. This error is regretted. A more detailed biography of Admiral Synnot by Gregory P Gilbert is at <http://www.navy.gov.au/biography/admiral-sir-anthony-monckton-synnot>.

A resumé is provided below:

Anthony Monckton Synnot was born on 5 January 1922 at Corowa, New South Wales and joined the RAN in 1939 as a Special Entry Cadet Midshipman. Synnot was promoted Sub Lieutenant in late 1940 while serving on HMAS CANBERRA. He then joined HMAS STUART in the Mediterranean under Captain Hector Waller [q.v.]. He was onboard PUNJABI when it was sunk in collision with the battleship HMS KING GEORGE V in Arctic waters in 1942. Paddling in the mid-winter conditions, covered in engine oil, he was fortunately rescued by another destroyer. Synnot was Chief of Naval Staff for the Royal Malaysian Navy from 1962 to 1965. During 1968 Synnot attended the Imperial Defence College in London. He was promoted to Vice Admiral and appointed Chief of Naval Staff (CNS) in November 1976. During the same year he was also awarded an AO. While CNS he ensured the RAN developed an awareness of the decision-making processes within the Australian government and administration. In April 1979 he was promoted to Admiral and became the Chief of Defence Force Staff, a position he held until his retirement in 1982.

REBUILDING THE COMMONWEALTH NAVIES – PART 2

THE STRUCTURE OF COMMONWEALTH NAVAL CO-OPERATION

By David Hobbs

In recent speeches British Foreign and Defence Secretaries both predicted an increased, persistent RN presence in South East Asia. Some commentators saw them as nostalgia for the influence the British Empire once held but as Professor Geoffrey Till has explained, there are compelling twenty-first century reasons for the United Kingdom to strengthen its ties with the region. British investment in South East Asia has always been considerable and once politicians finally deliver Brexit this is likely to increase significantly.

INTRODUCTION

Defence is big business, now growing at a rate not seen for decades, and in 2019 Southeast Asia was the third biggest market for UK defence exports. An increasingly visible British naval presence cannot but improve on this, bringing expanded economical benefits as well as closer ties with the Commonwealth. Professor Till also reminds us that even though the Royal Navy's Far East Fleet was stood down in the early 1970s, group deployments together with a permanent force of destroyers, frigates and mine countermeasure vessels have been stationed in the Gulf and Arabian Sea ever since with considerable enhancement during the two Gulf Wars.

The small refuelling enclave with its associated stores basin at Sembawang in Singapore has been retained and the UK has continued, despite many other pressures on its naval resources, to participate in the Five Power Defence Agreement and the 'Five Eyes' relationship. Statements by politicians should, therefore, be taken as indicators that evolving British plans recognise that the RN is not returning to the region; it has, for compelling reasons, never completely left it.

Against this background, the deployment of HMS QUEEN ELIZABETH with a tailored air group comprising F-35Bs and both sea control and amphibious assault helicopters together with an embarked marine force to the region in 2021 is entirely logical. Sharing the deployment with other Commonwealth navies would expand its potential enormously.

CLOSER MARITIME COMMONWEALTH CO-OPERATION

The theme of closer Commonwealth co-operation was discussed in November 2018 at a seminar convened by the International Institute for Strategic Studies, IISS, at Bloomsbury House in London during which the optimisation of the UK's maritime posture in the Indo-Pacific region was high on the agenda.

The RN First Sea Lord, Admiral Sir Philip Jones, and the RAN Chief of Navy, Vice admiral Michael Noonan, were among a wide range of delegates and Admiral Jones confirmed that this a region which the UK cannot afford to ignore - 'somewhere the Royal Navy needs to be in defence of our national interests'.



US Marine Corps F-35B Ranged on HMS QUEEN ELIZABETH (R08) - Image UK MoD.

The recent deployment of Chinese submarines into the Indian Ocean has encouraged the Indian Navy to seek closer naval ties with the UK and a recently signed agreement covers the joint development of aircraft carrier tactics including their use in sea control and anti-submarine operations.

Delegates at the IISS seminar were in broad agreement that the next steps must include increased RN engagement with navy-to-navy relationships. To facilitate this, they agreed that the UK Government must produce a clearly-explained and sustainable long-term strategy for defence co-operation in the region, engaging in dialogue with regional powers to better understand their concerns and aspirations. Participants agreed that the area in which the RN can add the most immediate value to the region's naval defence is in information-sharing and what they referred to as domain awareness. This would help Commonwealth warships to act as network-enabled task forces when they operate together.



PLAN submarine rescue vehicle HAI YANGDAO (864) arriving in Colombo port 4 Oct 2018.

Type 26 Global Combat Frigate (RAN Hunter-class)

Another initiative that will add value to Commonwealth co-operation is the Type 26 global combat frigate user group announced by Admiral Noonan. This has been established to co-ordinate activities of the RN and RAN, may soon include the RCN and could eventually include the RNZN if it opts to replace its *Anzac class* frigates with the Type 26.

The fact that the P-8A Poseidon MPA will be operated by the UK, Australia, New Zealand and India also gives scope for the development of a Commonwealth MPA operations group.

In summary the delegates at the seminar agreed that an enlarged forward presence by the RN in South East Asia backed up by regular deployments of high value units such as aircraft carriers, SSNs, destroyers and frigates would be welcomed by regional powers. Specialised teams deployed in non-UK warships, such as the recent Royal Marines detachments deployed to the region in a French task force were recognised as having some value but perceptions that they were only deployed in this way because of the RN's inability to deploy its own warships detracted from their success.

The regular exchange of Royal Marines detachments with ADF units between the *Canberra* and Queen Elizabeth classes would have a beneficial effect leading to mutual improvement in skills, tactics and doctrine that would be well worth striving for.

THE CRITICAL COMPONENT – NAVAL AVIATION

Having described, albeit briefly, how the Commonwealth navies are visibly improving their potential to work together, I want to stimulate discussion by drawing attention to a vital component of naval operations which is critically important but which has never been very well understood by politicians.

Naval aviation is the third dimension of sea power and the distinction should be noted between the Fleet Air Arm which forms an integral, embarked, element of the fleet at sea and so-called maritime aviation provided (or not as has often been the case) by land-based independent air forces. It is a politically created division that was not the case in the RNAS, the Navy's original air component which fulfilled both functions effectively under fleet command. It was the creation of the British RAF that caused the split and it has described itself from its instigation in 1918 as the world's first independent air force. It continued to do so in its centenary celebrations in 2018.

The air forces of Australia, Canada and New Zealand were founded on the same model but the adjective used to describe them all has never, adequately, been explained.

Independent of what?

If the answer to that question is 'independent of the army and navy' it certainly explains why the lack of tactical air power led to so many



INS VIKRAMADITYA (R33) With IN MiG 29K Fulcrums and USN FA-18 Hornets (2017).

British and Commonwealth defeats on land between 1939 and 1942. As the pompous and self-opinionated exponents of independent air power expounded their bombing theories in the 1920s and 1930s, it never occurred to any politician to question them about the fundamental lack of logic in such a policy.

If they were independent airmen it was assumed that they must surely know best about what to do with aircraft but what would happen if future wars were not fought out in the air by rival bomber fleets and deployed expeditionary forces from across the British Empire found themselves facing armies that were extensively equipped with tactical aircraft operating in direct support of its ground troops?

The answer came with defeats in Norway, Belgium, France, Greece, Crete and North Africa when it became clear that the British leadership had completely miss-understood the concept of air operations in modern war. I stress this historical point because there are still many staff officers in the Commonwealth's air forces who show little sign of understanding the value and application of sea power and the part aircraft have to play in it.

FLEET AIR ARM

The Fleet Air Arm, restored to full naval control by the Inskip Award of 1937, showed in 1940 how aircraft should be operated as part of a cohesive, three-dimensional force but after years of political neglect it was too small and, for a variety of reasons, ill-equipped to stand up for long against a German air arm equipped and trained to support its army on land. Despite pre-war claims that the RAF represented a central reserve able to deploy aircraft when necessary where they were most needed, it largely failed to do so in the first 3 years of the Second World War.

During 1940 in fact, it was the RN that had to provide aircraft and pilots from its slender reserves to contribute what support they could to the expeditionary force in Norway, search for U-boats in the south-west approaches, attack invasion barges and tank columns in north-west France, illuminate targets for night bombers in the North African desert and provide the first strike aircraft based in Malta. Brave pilots, who have never been given the recognition they deserve, flew Swordfish, Skuas, Rocs and even Walrus amphibians in dive bombing attacks on German Army units inland using tactics the pre-war RAF had described as having little practical value. Many of them never returned and while the Air Staff now knew better, it took years for the mistakes to be rectified.

There are many lessons to be learned from these early operations because they were fought largely with pre-war forces and their operational doctrines, just as any conflict would begin now, and not



Hull of NUSHIP HMS GLASGOW being assembled - the first of the RN T26 GCF, April 2019.

with the greatly expanded forces and combat experience with which the Allies ended the war. Lieutenant General H R S Massy DSO MC, Commander-in-Chief of the hard-pressed Expeditionary Force in Norway wrote in his report of proceedings that:

'As in Poland the Germans have used their air force in the closest co-operation with their military forces...I have no hesitation in saying that a degree of co-operation between the Army and Air Force, comparable to that which is now the case with the Germans, is essential if we are not to remain at a dangerous disadvantage. Co-operation between the Navy, including the Fleet Air Arm, and the Army has been of the highest standard possible....the arrival of the carriers off the coast and the operation of the Skuas and Rocs gave respite from bombing to the ports...which was invaluable. The Germans would not face our Fleet Air Arm fighters which were handled with a boldness that was an inspiration to the troops who watched their manoeuvres from the ground'

WHY DOES THIS MATTER TODAY?

It matters very much because there are many in Government who still think, knowing little about military or naval affairs, that air forces must know best how to deploy air weapons. Those with a knowledge of why things went wrong in the past know otherwise and anyone who thinks an amphibious landing can be supported by aircraft from a base hundreds if not thousands of miles away needs to be closely examined by those who actually understand their subject.

Landing on HMAS CANBERRA

If I were landing from HMAS CANBERRA I know where I would want my supporting fighters to be. Similarly, those in Government who consider it a simple expedient to declare that no more amphibious landings will ever be carried out need to take a long hard look at the Falklands War of 1982 which followed a similar statement by British politicians. Who can possibly make such a statement about the likely future requirements of national defence?

In operations at sea aircraft provide naval effects that might otherwise be provided by warships; they are an element of sea power, not an independent force fighting an isolated war in the atmosphere and, as such, naval warfare specialists must have a very powerful voice in how best to operate them. It is simply not good enough to say that the Air Staff does not think the embarkation of high-performance aircraft in ships is a necessary option, the concept needs to be argued and tested rationally against historical precedent.

Significantly too, all Australia's closest allies now operate, or plan to operate, the F-35B Lightning II from ships. The United States already does so from an increasing number of LHAs, the UK will achieve IOC with QUEEN ELIZABETH in 2020 and now Japan and

South Korea plan to convert their *Izumo* and *Marado* class ships into light fleet carriers.

Australia alone?

Australia, it seems, is alone in being swayed by arguments that F-35As operated by the RAAF from land bases potentially thousands of miles from the scene of action can, with tanker support, provide sufficient effect whenever the fleet is ordered into harm's way.

SEA SENSE TO SEE SENSE

The British Government once accepted a similar Air Staff doctrine, known as the Tactical Air Support of Maritime Operations or TASMO. It was considered cheaper than retention of the existing aircraft carriers but when, in 1982, Argentine forces invaded the Falkland Islands RAF Phantoms and Buccaneers sat uselessly on their UK tarmac 8,000 miles away from the action and it was left to the small number of embarked RN Sea Harriers (a type the RAF had dismissed as having little value as a fighter) to provide fleet air defence and strike sorties from the sea. Ironically the TASMO Phantoms had originally been procured for the Fleet Air Arm and the Buccaneers had been taken from it when the aircraft carrier *Eagle* was prematurely retired in 1972.

I hear some ill-informed readers shouting 'surely the RAF deployed a squadron of Harriers to the South Atlantic'. Yes, they did but they required naval expertise to take a container ship up from trade, STUFT, and convert it, in a manner of days, into a one-spot 'Harrier carrier' able to take the aircraft into the war zone from Ascension Island. They also needed a fully-operational aircraft carrier, HERMES, in the war zone to teach them how to operate in the new environment and to provide the fuel, weapons, workshops and accommodation they needed to fight. Fortunately, in 1982, the RN still had a sufficiently powerful institutional air voice to allow sensible choices. Without it the 'independent' air force could never have got its assets into the fight and the UK would be a different country, one condemned for not defending its citizens or territory.

Those who cannot see the sense in embarking high-performance



A RAAF P-8A Poseidon operating with HMAS DARWIN (FFG-04) in the South China Sea, Mar 2018 (Image LSIS Peter Thompson).

fighters in even relatively small aircraft carriers might like to study the statistics of Operation Musketeer, the brief British Suez campaign in November 1956. A political failure, it was a great success from a naval perspective that vindicated doctrine and tactics besides demonstrating some interesting facts. Two thirds of the allocated tactical aircraft were provided by the RAF, operating from bases in Malta and Cyprus; one third were provided by the Fleet Air Arm in three aircraft carriers.

The carriers' flexible choice of launch positions enabled naval



USMC Osprey V-22 and RAN MHR-90s Operating from HMAS ADELAIDE (L01) Indo-Pacific Endeavour 2018 (Image ABIS Craig Walton).

aircraft to fly two thirds of the strike missions and the RAF only one third since their extra numbers were wasted in long transit sorties. Only the carrier-borne naval fighters were able to provide continuous 'cab-rank' support over the troops on the ground since, after brief appearances at high altitude, RAF fighters had to turn and go home.

Yes, tankers could be used to refuel tactical fighters in flight today but would you really want to tie up large numbers of fighters and or even tankers in long a fruitless transit flights with only minutes over a combat zone? No cover would be left if a fighter fired all its weapons shortly after arriving on task and a replacement might not arrive a long time but a smaller number of fighters operating from a carrier could achieve higher sortie generation rates. The USA, UK, Japan and South Korea have recognised this.

F-35B – NOT JUST A NEW STRIKE FIGHTER

The F-35B is not just a new strike fighter, it offers new capabilities now being realised by the US Navy and Marine Corps who believe that its major contribution to sea power might not be as fighter at all but as a stealthy airborne node within a fleet wide co-operative engagement capability.

If the RAN were to have F-35Bs capable of embarkation in a *Canberra* class ship either built or modified for the purpose the type's data-integration and networking capabilities would give the fleet a network-centric edge giving a single tactical picture in every ship and aircraft. Likely by 2025 its APG-81 radar will have a wide-area synthetic aperture mode allowing it to scan vast areas of ocean; its passive sensors can detect targets at long-range without the revealing the aircraft's presence and all of its fused data can be transmitted and received via a tight beam, stealthy datalink.

Deploying F-35Bs as part of a naval task force is much more than embarking an air defence fighter. As part of a digital network-enabled command system it can detect ballistic missile launches against the force, cue missile fire from an air warfare destroyer, track bombardment targets ashore and engage enemy aircraft without revealing its presence and other tasks besides, all of these simultaneously. Given these capabilities, the question should not be does Australia need F-35Bs at sea? Rather could an RAN task force survive in future conflict without them?

When HMS QUEEN ELIZABETH deploys to the Indo-Pacific region in 2021 she will have a squadron of USMC as well as British F-35Bs embarked as part of her tailored air group. In future, were Australia to procure F-35Bs in addition to the F-35As on order for the RAAF,

these too could be operated from QUEEN ELIZABETH or her sister ship PRINCE OF WALES to give a remarkable degree of flexibility. British aircraft could be cross-decked to operate from a *Canberra* to provide both navies with enhanced operating experiences that would improve their flexibility and mutual operational capability. The British concept of a joint F-35 force, manned equally by the RN and RAF is not, in my opinion, the ideal way of achieving the best the 'B' has to offer a naval task force although from 2023 it will include a naval air squadron, 809 NAS. The idea has not been copied by any other nation and it runs the risk that extended shore operations will be given higher priority by the RAF and limit embarked time; this is precisely what happened with the earlier joint Harrier force prior to 2010. A joint approach might, however, appeal to Australia and it should certainly be considered.

BACK TO THE FUTURE

The key thing from a Commonwealth perspective is to look ahead and see how working together can bring mutual advantage both in terms of using extant ships and aircraft on a day-to-day basis and carrying out digital war fighting simulations between platforms through a secure internet to acquire and maintain command skills.

The UK and Australia already share F-35 threat library data, the software that allows the aircraft to identify multi-spectral contacts and distribute them throughout the network. Similar work could read across to the P-8A and since British and Australian aircraft equate to the latest USN standard, the frequent exchange of crews to gain wider operational experience in different oceans should not present problems. RAN SH-60R Seahawks of 816 NAS have deployed to the UK for participation in the Joint Warrior series of exercises on several occasions now and their success shows the many advantages that such operational training packages have to offer.

Familiarity, friendship and respect are values that underpin the Commonwealth and cross deck operations by naval aircraft are a straightforward way of bringing its navies closer together. The digital age brings with it extraordinary and expensive changes to every aspect of naval warfare.

None of the Commonwealth navies could hope to absorb them alone but together we achieve solutions that offer a powerful statement to aggressors that we stand together for the rule of law in the world's oceans on which we all depend. In going into the specifics of naval aviation I hope to have stimulated discussion in a subject that has not been well managed or even understood by the British, Australian or Canadian Governments and much more could have been achieved if it had been.

Now is the time to focus on naval aviation across the Commonwealth with logic and imagination and see what we can do together to achieve the best we can in future. ■

About the Author: David Hobbs is a well-known author and naval historian. He has written eight books and co-authored eight more. He writes for several journals and magazines and in 2005 won the Aerospace Journalist of the Year, Best Defence Submission. He served in the Royal Navy from 1964 until 1997 and retired with the rank of Commander. He qualified as both a fixed and rotary wing pilot and his log book contains 2,300 hours with over 800 carrier landings, 150 of which were at night. His extensive naval aviation experience gives his latest book '*A Century of Carrier Aviation*' an authentic edge.

THE PRICE OF ALLIANCE

By William R. Alston

This paper considers the price of Alliance with the U.S. over the last 75 years in war and in peace, largely from a UK and Australian perspective. It posits that when Alliances have been most healthy, partners have worked on mitigating risks and developing trusts between them. When Alliances have become taken for granted and costed by accountants, frequently they have lost vigour and meaning. This paper explores the background and philosophical, political, security, and economic understanding and underpinning upon which alliances depend, from a historical background. It also looks to a future where these Alliances formed and forged in blood – including with France, Germany and Japan – will be fundamental in shaping an uncertain and increasingly unstable future.

INTRODUCTION

With family who fought in the RN and RAN during World War 2, in the Pacific, Mediterranean and Atlantic Theatres, the author has an enduring affection and love for the U.S. Like many of his generation, he has served for/with exceptional U.S. Generals and Admirals, soldiers, sailors and aircrews. From what the author saw, the American War Machine is a truly awe inspiring even frightening sight – neither good; nor bad.

Working with those who forecast Brexit (in 2012), President Trump (in early 2016), and the likely insurrection against President Macron in France (in early 2017 – the Gilet Jaunes rising occurring in November 2018), the author is not blinded by bias. He remains a firm supporter of the U.S. – a pro-Europe, Common Law, Commonwealth Atlanticist (intuitively opposed to EU Federalism), and supporter of the ANZUS Treaty (though not a Pacifist!)

This paper considers the Alliances between Australia and the UK, with the U.S. and their price through a historical, economic, industrial, pragmatic and post-realist lens; ‘adapting historical realism to a contemporary evolutionary path, appropriate for a complex globalising society’. [1]

NEO-ROMANTIC

Contemporary, romanticised views of Alliances with the U.S. tend to suggest that they have been ‘in place forever’; that they are based upon ‘especial’ mutual trusts; and are largely fixed and immutable. This may not be the case, and it is important to understand the bases upon which the different Alliances – including Five Eyes, NATO, and ANZUS – emerged, to comprehend what they may now ‘be’, or yet become.

Based upon Vegetius’ maxim ‘if you want peace; prepare for war’ (*si vis pacem, para bellum*), during the 1920s and 1930s the U.S. developed a series of ‘color-coded’ plans that outlined potential U.S. warfighting strategies. The plans were officially withdrawn in 1939, in favour of Rainbow Plans developed to meet the threat of a two-front/two-ocean (Pacific-Atlantic) war against different enemy coalitions/combinations. The U.S. exercised elements of plans Black, Brown, Red, Orange, and Indigo to defeat the Axis Powers, see Table 1.

In the late 1950s, the author’s Australian Mother went on the semi-obligatory antipodean European tour. She arrived in Marseilles, and

War Plan Black	A plan for war with Germany conceived as a contingency plan during World War I, in case France fell.
War Plan Brown	Dealt with an uprising in the Philippines, and which later formed the bases of General MacArthur’s recapture of the Philippines between 1944 and 1945, Operations Musketeer I, II, and III.
War Plan Red	Plan for the United Kingdom – with sub variants Crimson, Scarlet, Ruby, Garnet, and Emerald for British dominions (including Canada and Australia)
War Plan Orange	Plan for a Pacific War against Japan, potentially in alliance with/from China.
War Plan Red-Orange	A two-front war against the Japanese (Pacific) and British Empires (Atlantic-Pacific) simultaneously. Analysis concluded that the U.S. did not have the resources to fight on two fronts and to focus on one, namely the Atlantic (and Germany/Italy). This resulted in the 1940 ‘Plan Dog memo’ by Chief of Naval Operations Admiral Harold Rainsford Stark USN, which (much to Churchill’s relief) in 1942 became ‘Europe First’, following Germany’s declaration of war against the U.S. after Pearl harbour.
War Plan Indigo	Involved the capture of Iceland. In 1942, when Denmark was under Nazi occupation, the U.S. occupied Iceland to relieve British Forces (there since May 1940 and also occupying the Faroes) during the Battle of the Atlantic.

Table 1: Some U.S. Inter-War Colour and Rainbow Plans.



Fire boats tackling St Katharine's Docks and shipping ablaze in 1940.

then travelled throughout Europe (by a blue Vespa motor scooter), including the Low Countries, Italy, Scandinavia, Denmark, and West Germany – before arriving at Tilbury docks (with her trusty scooter). She was shocked. Whereas West Europe was rebuilding and vibrant (supported by the Marshall Plan, 1948-1952) and, with the exception of Normandy (a), Vichy France and Paris had been largely spared, Britain remained flattened. The East End of London still bore bomb damage from the Blitz and V1/V2 missile attacks. As Londoners will recall, burnt out wharves in St Katharine's Docks (alongside Tower Bridge) remained into the 1970s. The UK ended rationing in 1954 and did not make its final payment of about \$83m (£45.5m) until 2006 (under then Chancellor Gordon Brown) – thereby discharging the last of its U.S. Lend-Lease war loans.

ON TRUST

Trust itself is difficult to define, largely abstract, and does not translate between different political economies, philosophies and cultures (for example between France and Australia). However, distrust is evidence-based and measurable. Consequently, controls can be configured as a basis for forming and enabling a reliable relationship for ongoing negotiation, where trust may be developed. Distrust is a more reliable platform and starting point for (any) negotiations – but clearly not a successful outcome or end point. [2]

The point Aeneas was making is that trust is not something that can be assumed and that it needs to be continuously negotiated. Starting from a position of healthy distrust of the other is often a more constructive position to start from. For example, as Aeneas also suggests, the relationship between France and Australia regarding its Future (*Attack-class*) submarine may become more trustworthy than that between the U.S. and Australia. Exactly because it has started from a position of distrust and can be negotiated and measured accordingly. General John Drewienkiewicz (UKA) [3] made two telling observations on multinational (as opposed to bi-lateral) alliances:

1. That they make you legitimate, not necessarily effective or efficient;
2. Pooling sovereignty (in the form of 5 Eyes, NATO, the UN, the European Union, etc.) means politicians, diplomats, public servants, and military staffs stop thinking strategically about National Interests. As the UK found out following the Brexit vote.

For longstanding Alliances, such as 5 Eyes, NATO or ANZUS, the

points made pose significant problems. How, for example, to instrument and test an alliance in such a way that distrusts can be negotiated, and values reaffirmed, generation on generation?

A PRICE PAID?

The Atlantic Charter signed in August 1941 to enable the UK to access U.S. Lend Lease (passed by Congress in March 1941) and assure Britain of U.S. material support (not direct military involvement), also set out what a post-war settlement might look like. Although not binding, the Atlantic Charter:

1. politically affirmed the sense of solidarity between the U.S. and Great Britain against Axis aggression.
2. in security-economic terms, laid out President Roosevelt's Wilsonian-vision for the post-war world order; one that would be characterised by freer exchanges of trade, self-determination, disarmament, and collective security, so;
3. serving as a political security economic (PSE) inspiration for colonial subjects throughout the Third World, from India, Algeria to Vietnam, as they sought/fought for independence.

The freer exchange of trade, was recognised in the 1944, political economic Bretton Woods System, including:

1. the International Monetary Fund (IMF);
2. the World Bank;
3. the Dollar Peg, and;
4. the General Agreement on Tariffs and Trade (GATT) – now the World Trade Organisation (WTO).

Disarmament of West Germany and Japan did occur up and until the end of the 1940s and the formation of NATO and the Korean War. Collective Political Security led to the creation and standing up of the United Nations in 1945, which embodied the principle of self-determination in Article I of its Charter. With NATO, it also underwrote the political security economy of the 1951 European Steel and Coal Pact – forerunner of the EU.

At the end of WW2, the U.S. occupied Japan largely in its entirety (under General Douglas MacArthur) and Germany, with France, Britain, and the Soviet Union. The back-end of WWII had marginalised Britain. With the exception of its Navy in the Atlantic/Mediterranean, the British Pacific Fleet, and a series of successful amphibious landings (including D-Day and at Okinawa), its Army had not fared well. General Eisenhower (as President) later described Montgomery as a “psychopath”, and patchy/slow British performance following D-Day – leading to the catastrophe of Market



President Roosevelt and PM Winston Churchill attend Church Service on board HMS PRINCE OF WALES (BB 53) during Atlantic Charter discussions Aug 1941.

Garden – was much criticised. In 1942, Churchill lamented that British soldiers did not appear to have the fighting spirit of their forefathers. By late-1945, Prime Ministers Churchill, Curtin, and President Roosevelt were no longer in power – PM John Curtin and President Roosevelt both dying in office.

Unlike the UK, the bitter experience of the two WWI failed referendum (seeking a mandate for conscription); the colonial-sectarian, Protestant/Roman Catholic, Anglo-Celt division within the Australian Labor Party and prevalent in the union movement (which was highly supportive of the Molotov–Ribbentrop Pact that placed German National Socialism in alliance with the USSR and politically more sympathetic to the Soviet Union, than Britain) led Curtin refusing Robert Menzies (b) offer to form a National Government, as in the UK. In late December 1941, Curtin's New Year's statement to a newspaper, made the assertion:

Without any inhibitions of any kind, I make it clear that Australia looks to America, free of any pangs as to our traditional links or kinship with the United Kingdom.

Curtin's comment angered Churchill (and his Labour Deputy, Clement Attlee); shocked many Australians; and was received very poorly in Washington, where President Roosevelt considered the statement 'smacked of panic' – consequently leading him to reinforce his support for the "beat Hitler first" strategy. [4] Curtin also formed the "Prime Minister's War Conference", a committee which displaced the *de jure* authority of the Cabinet, the War Cabinet, and the Advisory War Council. [5] Curtin could invite anyone he wished to attend. In practice, this generally included Frederick Shedden (a Public Servant and Secretary of the Department of Defence, 1942-1956, described as being: "a rather pompous bureaucrat without the [strategic policy] influence he aspired to or believed he had achieved...a good, efficient public administrator who did his job to the best of his ability" [6]), and the Commander-in-Chief of the South-West Pacific Area, General Douglas MacArthur (plus whichever U.S. General MacArthur wished to accompany him). It did not include General Sir Thomas Albert Blamey, C-in-C Australian Military Forces and Commander Allied Forces (MacArthur's ostensible Deputy – promoted as Australia's only Field Marshal on his deathbed in 1951). MacArthur consistently excluded Australians from his planning and operations 'saying that there were no suitable senior officers available'. [7] At the PM's War Conference, following the attack by Japanese Midget submarines on Sydney Harbour, MacArthur brutally stated *inter alia*:

... [U.S.] interest in Australia was from the strategical aspect of the utility of Australia as a base from which to attack and defeat the Japanese. The failure of the United Kingdom and U.S.A. Governments to support Australia therefore has to be viewed from different angles...though the American people were animated by a warm friendship for Australia, their purpose in building up forces in the Commonwealth was not so much from an interest in Australia but rather from its utility as a base from which to hit Japan. In view of the strategical importance of Australia in a war with Japan, this course of military action would probably be followed irrespective of the American relationship to the people who might be occupying Australia.

Curtin naively was trying to use MacArthur to influence Churchill and Roosevelt in London and Washington, so as to win a seat at the post-war peace conferences – as PM Billy Hughes had secured after WWI. MacArthur's statement shows that this tactic was fruitless. [4] Curtin failed on both accounts. Whereas Australian troops fought magnificently in 'fighting retreats' in Greece and North



HMS FORMIDABLE (67) in distance and HMS EURYALUS (42), centre RASING from a tanker of the BP Fleet Train. HMS EURYALUS is transferring store to HMS UNDAUNTED (R53), Image IWM.

Africa (before being returned to the Pacific Theatre by Prime Minister Curtin) and in the Malay Peninsula, at Singapore their performance was criticised (perhaps unkindly and injudiciously by the British). And while the Kokoda Track was significant in many respects (the Battle of Milne Bay more so, where the Japanese were defeated by Australian and U.S. forces), both represented more the 'end of the beginning'. As significantly, through MacArthur's control of Australia, Australian Military Forces, and the media (all of which MacArthur used to cover up his Philippines debacle), the Australian Army and its General Staff (including Blamey) was marginalised. Its successes generally portrayed, first as MacArthur's, and then American.

The RAN fought with distinction in the Mediterranean – including at Tobruk where the author's infanteer New Zealand step-Grandfather bemoaned the fact that the Brits then lost it. With the USN, under an Australian born Admiral (Crace), the RAN strategically (if not tactically) defeated the Imperial Japanese Navy at the Battle of the Coral Sea. This – as argued recently in *The NAVY* and acknowledged by the PM Scott Morrison on board USS RONALD REAGAN (CVN-76) in the Coral Sea, 12 July 2019 – was the **Battle for Australia** [8]:

'If the Battles of the Coral Sea and Midway are viewed as a continuum, then the Battle of the Coral Sea was the first act of a much larger victory'. [9]

Although opposed by both Admiral Ernest King USN (c) and MacArthur (who wanted his own Navy and did not want to divert dedicated Australian effort to the RN) – Australia and the RAN played a pivotal role in re-building, fitting-out, and crewing the British Pacific Fleet. More correctly described as the Commonwealth Pacific Fleet [10], the BPF went on to fight alongside the USN from 1944 onwards, including at Operation Iceberg – the Battle of Okinawa (d), which was larger than D-Day. [11]

In late 1945, under President Truman, the emphasis was on:

- bringing back the troops;
- getting along (as opposed to resisting, as advocated by General George S. Patton and Churchill) with the Soviet Union, and;
- implementing the Atlantic Charter (Roosevelt's legacy), with its emphasis on self-determination – which, in reality, meant de-colonialization.

The U.S. was not interested in re-building the British Empire at 'its' political-economic and industrial expense, only years after planning to fight it. At the same time, the U.S. was determined to maintain its security dominance and keep its hands on the bomb – refusing to share its secrets with the British. In fact, an Australian-born

physicist Mark Oliphant, who was part of the Manhattan Project, 'risked his liberty to tip off the British that the United States was planning to exercise complete post-war control over nuclear weapons'. [12] Infuriated by this U.S. snub, and trying to extricate Britain from Empire and political security and economic/industrial collapse, Prime Minister Clement Attlee – at a price to the UK of \$4.1 billion in 2019 prices (\$7.5b) – with Australian support, embarked upon the development of 'The British Bomb'.

Generalissimo Douglas MacArthur, the *de facto* Proconsul/Shogun of Australia and then Japan was instrumental in making the Korean war the success, and the failure it remains to this day. Exercising even more power in Japan, than he had in Australia, MacArthur sought to exercise authority over President Truman both in the running of the Korean War, and the tactical use of Nuclear Weapons. Alarmed at MacArthur's insubordination (e), that had already brought the Chinese into the war with devastating consequences (including the defeat of the UN's 8th Army), and his wish to control nuclear weapons, Clement Attlee demanded his removal. On 11 April 1951 President Truman, stressing his role as "President and Commander-in-Chief of the United States military forces", drafted an order to MacArthur "replacing him as Supreme Commander, Allied Powers; Commander-in-Chief, United Nations Command; Commander-in-Chief, Far East; and Commanding General, U.S. Army, Far East". Later, in a *Time* Magazine Article, Truman was quoted as saying:

I fired him because he wouldn't respect the authority of the President. I didn't fire him because he was a dumb son of a bitch, although he was, but that's not against the law for generals. If it was, half to three-quarters of them would be in jail. [13]

SIGNAL CHANGE

Churchill's 'Sinews of Peace' (f) speech (g), in which he also coined the term 'Special Relationship', had a significant impact in the U.S., Europe and the Soviet Union (where it was condemned). It led President Truman to a strategic reappraisal – resulting, in 1948, in the development of the Truman Doctrine (to oppose the Soviet Union); and in 1949 to the establishing of NATO.

In 1951, Prime Minister Ben Chifley (for Australia) and President Truman agreed the ANZUS Treaty. Although never fully abrogated and NZ subsequently declared itself 'a nuclear-free zone refusing to allow U.S. nuclear-powered submarines to visit its ports' (i), 1984 bilaterals between the U.S. and Australia confirmed that 'both countries would continue to honour their obligations under ANZUS'.

As part of the American Truman Doctrine of creating anti-communist bilateral and collective defence treaties, the Southeast Asia Collective Defense Treaty, or Manila Pact, was signed on 8 September 1954 – leading to the establishment of the Southeast Asia Treaty Organization (SEATO) in 1955. Members included Australia, France, New Zealand, Pakistan (and Bangladesh, then East Pakistan), the Philippines, Thailand, the UK and the U.S. Only the Philippines and Thailand could be considered as South East Asian nations and, unlike NATO, standing forces and an HQ were never allocated. Opposition to U.S. policies in Vietnam – including by both France and the UK – led to its disbandment in June 1977. (j)

The Soviet Union's 1957 launch of Sputnik caused an existential shock to the U.S., when it realised that it no longer had nuclear or technological advantage over the USSR, and was vulnerable to nuclear attack. Relationships between the U.S. and the UK, and the U.S. and France had been significantly strained by the Suez Crisis. Although claims have been made that the U.S. 6th Fleet deliberately came between British and Egyptian forces (to the point of potential conflict), Britain was defeated economically and politically.



General Douglas MacArthur and members of his family evacuated the Philippine island of Corregidor in four PT class MTBs including PT 32.

The Dollar Peg meant that the British Treasury had to maintain parity with the Dollar. The U.S. caused a run on the pound, which ultimately broke the Bank of England – not for the first time. Britain and France learned different lessons. France that it could never trust the U.S. (k) and that it would have to go it alone, for example on nuclear Deterrence (its Force de Frappe). Britain, that it could never afford politically or economically to go it alone without the U.S. In 1958 the U.S. agreed the US–UK Mutual Defence Agreement, on the uses of Atomic Energy for Mutual Defence Purposes. The agreement allows the U.S. and the UK to exchange nuclear materials, technology and industrial information, which forms the bases of the UK's 'Independent' (l) Nuclear Deterrent to this day.

The Australian Government, while supportive of Britain in the round, aligned with other Commonwealth countries (including India, Sri Lanka and Canada) in its opposition to Suez. Subsequently using this as a basis for formalising its pivot to the U.S. – realised in the ANZUS Treaty and later in its involvement in Vietnam.

FIVE EYES

The origins of Five Eyes were raised in the margins of the 1941 Atlantic Charter, which included access to Bletchley Park and its material even before the U.S. entered the war. In 1943, the British–U.S. Communication Intelligence Agreement, enabled co-operation between the U.S. War Department and British Government Code and Cypher Schools, such as Bletchley. On 5 March 1946, the treaty was formalised as the UKUSA Agreement; forming the basis for all signal intelligence cooperation between both countries. In 1948 the agreement was extended to include Canada, and then in the 1950s West Germany, Norway, and Denmark, and in 1956 Australia and New Zealand. In 1955, the UKUSA Agreement confirmed formal status on the Commonwealth collaborating countries of Australia, Canada, and New Zealand – Hence Five Eyes.

Five Eyes while also the Gold Standard, is considered by many leading U.S. politicians and bureaucrats as a mistake, something of a multilateral-bilateral aberration. It is also a two-edged sword. The U.S. is the dominant partner and there are power imbalances – for example, New Zealand has been in and not. Additionally, other countries and organisations such as NATO, contribute much more and have not been included. From time to time attempts are made informally, and sometimes formally to bring other nations in. For example, in 2009 the U.S. apparently proposed that France joined under a proposed Six Eyes Agreement. President Sarkozy insisted that France should have the same status as other Allies, including 'no spying on each other'. A condition acceptable, apparently, to the director of the NSA, but not the director of the CIA. (m) True or not, it is very much up to the U.S. to dispose as other members may, or may not, propose.

While Five Eyes began by creating a permissive environment for



The 135th AHC (EMU) US Army Royal Australian Navy Helicopter Flight Vietnam approach a landing strip in South Vietnam (image Bob Kyle).

information capture and knowledge exchange [14], each new politically inspired improvement created rules that, in practice, had the result of overturning the founding explorative principle of *nulla poena sine lege* (no punishment without law – or everything which is not forbidden may be permitted) to *nulla lege sine poena* (there is no permission without law). This is seen in the reactive, default application of NOFORN – meaning no foreigners [to U.S.] can be provided access. Even if, as in many cases, the information/knowledge may have come from non-U.S. Five Eyes partners in the first place.

ON POLITICAL SECURITY ECONOMY

Whereas Australia and New Zealand both fought with distinction in Vietnam – wars of discretion that also posed great strain on Australian domestic politics and on ANZUS – the UK refused to send troops. This had some significant consequences for the UK. The Dollar Peg held currencies in value as if they were one – for example the Euro. This works for so long as currency rates remain aligned with industry, exports, trade, local inflation and interest rates. When they do not align, crises occur. The overvalued pound in the 1960s and 1970s led to frequent sterling crises (and concomitant industrial unrest due to uncompetitiveness and layoffs) and the U.S. Treasury orchestrating multilateral ‘bailouts’ to prevent the British from devaluing. Failure to support the U.S. in Vietnam had economic, and political consequences:

Documentary material from British and U.S. archives indicates that some of Johnson’s advisers decided that Washington should only support the pound if Britain continued to maintain its extensive defence commitments ‘East of Suez’ and in West Germany, as withdrawals from these areas would undermine the United States’ own foreign and defence policies. National Security Adviser McGeorge Bundy went further by trying to bring Vietnam into the deal, counselling the President on 28 July 1965 that it made ‘no sense for us to rescue the pound in a situation in which there is no British flag in Vietnam ... a British brigade in Vietnam would be worth a billion dollars at the moment of truth for sterling’. [15]

Due to the U.S. dollar’s fixed value against gold, under the Bretton Woods system of fixed exchange rates the dollar had become overvalued. Ultimately, unwilling to revalue the Deutsche Mark up (impacting on industrial productivity, trade and inflation, at a time oil crises and stagflation in the U.S. and UK), it was West Germany in May 1971 that broke the Dollar Peg and the Bretton Woods system. Politically, there is indication – albeit difficult to track down –

that the U.S. provided encouragement to aspirations for Scottish Independence over the same period; while expressing sympathy for the Republican civil-rights cause in Northern Ireland. Both of which played well to domestic audiences. Although perhaps underestimated, NORAD between 1971 and 2001 raised between \$18 and \$40million (in 2001 prices (n)) for the IRA and Sinn Féin. And between 1995 and 2014 \$12 million for Sinn Féin. (n) It was though U.S. political influence on British and Irish security issues that was most significant. The peace, as forecast in an article in the *Naval Review* [16], had to be politically and economically delivered. This would require the U.S. to support as security guarantor, initially under President Bill Clinton.

THE COST OF EVERYTHING, AND THE VALUE OF NOTHING?

The Liberal democracies of the US, UK, NZ, Canada, Japan, India and Australia have a different Common Law/Commonwealth philosophical base (formed in Civil Wars, War and Revolution) than do the social-democracies of France, Mexico, Portugal, and Spain (also formed in conflict). Germany occupies a position ostensibly neither liberal, nor social, but perhaps more democratic? The point is, that Alliances need to be valued and recognised culturally within the philosophical, historical, and political security economic (warfare) structures in which they were formed. Ultimately, Britain could not remain a member of a PSE structure alienable to its own underlying philosophy and culture. Hence Brexit, but also the fact that France rejected NATO in 1966, and may yet do so again. The liberal-economists of the 1980s, while on the one hand defeating inflation, gave us the cost of everything – including globalising de-industrialisation (through China) and the financial crisis of 2008 – while also breaking the trusts and values necessary to form trusted/effective alliances that can adapt and change. The British over-promising and under-delivering in Afghanistan and Iraq – where the British Army (not the pound this time) had to be rescued on a number of occasions – is a case in point. The British Armed Forces have all suffered as a result of this strategic failure – including its critically denuded Navy.

Alliances will not be valued unless they are invested in. And this investment means negotiating on distrusts and developing areas of common interest. They cannot be left standalone, or simply be costed in some accountant’s spreadsheet. They need to be kept alive and re-invested in and afforded every generation. For the record, President Trump – through his quixotic own ways – is achieving this and forcing a philosophical re-think that had to happen. We are not at war – through his emphasis on jawing and not warring – and we may well have been under any of his predecessors, or alternatives. That is a starting point which the Global West [17] has not had for many years. At this time of instability and uncertainty, it is one worth revaluing and rebuilding upon, so we know the value and can trust the price – it is never too late. ■

About the Author: William R. Alston is a nom de plume. The Author has previously written as *Alston* for the UK Naval Review.



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FOOTNOTES

- Where it is estimated up to 30,000 French Civilians were killed following the D-Day Landings.
- Prime Minister from 1939 to 1941, and again from 1949 to 1966. Menzies had not served in WWI and was criticised for appeasement following his visit to Germany in 1938. He was seen not to be in a position to heal the bitter divisions of WWI and as a leader of a minority Government, lost the support of the House.
- Admiral King had to be overruled by President Roosevelt to allow the Royal Navy to fight in the Pacific. Although an Anglophobe, Admiral King was concerned about the quality of RN Ships and the additional stress it would place on the USN's already extended Fleet Train.
- As successfully advocated by General MacArthur over Admiral's King China-coast-Formosa strategy, which would have been better for the UK and Australia in the long run.
- General of the Army Omar Bradley stated "MacArthur was a megalomaniac".
- At Westminster College, Fulton, Missouri, USA, 5th March 1946.
- Supported by Labour PM Clement Attlee, Churchill's Deputy Prime Minister (1942-1945), and attended by President Truman
- Causing the U.S. to suspend its treaty obligations to New Zealand in 1986.
- It could be argued that, in part, SEATO was responsible for the formation of the Association of SE Asian Nations (ASEAN) on 8 Aug 1967, representing Thailand, Indonesia, Malaysia, Singapore, Philippines, Vietnam, Brunei, Myanmar (Burma), Cambodia, Laos, under its plus 6 including China, Japan, South Korea, Australia, India and New Zealand.
- Leading, ultimately, to De Gaulle's withdrawal from NATO's Integrated Command in 1966, and the ejection of the Supreme Headquarters Allied Powers Europe (SHAPE) headquarters from Rocquencourt near Versailles, to Mons in Belgium.
- Analysis by the U.S. suggests that the flow is largely one way – 70% U.S.; 30% UK.
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- See Paul Barrett 'The Forgotten Impact of NORAID', Updated on May 17, 2018 <https://owlcation.com/social-sciences/NORAID>, accessed July 2019.
- See Pamela Duncan, Simon Carswell 'Sinn Féin raised \$12 million in the United States – List of 15,000 donations reveals fundraising unmatched by any other Irish party', *The Irish Times*, Thu, Mar 5, 2015, 03:30 Updated: Thu, Mar 5, 2015, 14:26, <https://www.irishtimes.com/news/politics/sinn-fein-raised-12-million-in-the-united-states-1.2126033>, accessed July 2019.



NOTICE IS HEREBY GIVEN THAT THE

ANNUAL GENERAL MEETING OF THE NAVY LEAGUE OF AUSTRALIA



will be held at the Hotel Realm, 18 National Circuit, Canberra ACT

FRIDAY 25 OCTOBER 2019 AT 8.00 pm

BUSINESS

- To confirm the Minutes of the Annual General Meeting held in Canberra on Friday 26 October 2018
- To receive the report of the Federal Council, and to consider matters arising
- To receive the financial statements of the year ended 30 June 2019
- To elect Office Bearers for the 2019-2020 years as follows:
 - Federal President
 - Federal Senior Vice-President
 - Additional Vice-Presidents (3)

Nominations for these positions are to be lodged with the Honorary Secretary prior to the commencement of the meeting.

5 GENERAL BUSINESS:

- To deal with any matter notified in writing to the Honorary Secretary by 18 October 2019

ALL MEMBERS ARE WELCOME TO ATTEND

By order of the Federal Council

Adrian Borwick
Honorary Federal Secretary

PO Box 2495
Chermside Centre QLD 4032

Email navyleague.qld@bigpond.com

NUCLEAR PROPULSION ROADMAP FOR AUSTRALIA* – A DIFFERENT PERSPECTIVE

By Christopher J. Skinner

Nuclear propelled submarines confer superior strategic capability which Australia would do well to acquire in an uncertain and increasing complex environment.



Marine do Brasil Submarine RIACHUELO (S40) the Fifth of the Class will be Nuclear Powered.

INTRODUCTION

The transition to nuclear propulsion for the Australian submarine force has been framed in the context of the lack of a nuclear industrial base as is possessed by all other countries possessing or acquiring nuclear powered submarines. [1] This paper offers the argument that if national security dictates were of sufficient gravity then Australia could acquire nuclear propelled submarines even before a nuclear industry was established, and suggests a way ahead to achieve this goal.

TECHNOLOGICAL DEVELOPMENT ANALOGY

The transition from conventionally powered submarines to nuclear boats may be likened to the transition of aircraft from propeller driven to jet engines, or in military fighter aircraft from subsonic to supersonic capability. The transition to nuclear propulsion has been

embraced fully by USA, UK and France which no longer operate conventionally powered submarines, although France maintains the design and construction capability to supply conventionally powered submarines to export customers including Australia. Other countries operate both nuclear and conventionally powered submarines, notably China, Russia, India and soon also Brazil.

For Australia a similar parallel approach would be the prudent approach as the timeframe and sequencing of the nuclear propulsion roadmap could be achieved concurrently with the latter part of the current development of the *Attack-class* of conventionally powered submarines. This is discussed further below and the time interrelationships summarised in Figure 1.

NUCLEAR POWER IN AUSTRALIA

Nuclear power has been a contentious subject in Australia for decades and was encapsulated in legislated bans, notably the



INS CHAKRA (II) ex RS NERPA (SSN K-152) a Russian Akula II Class submarine.

Environmental Protection and Biodiversity Conservation Act 1999, which states, inter alia:

- Section 140A No approval for certain nuclear installations**
The Minister must not approve an action consisting of or involving the construction or operation of any of the following nuclear installations:
- a) A nuclear fuel fabrication plant;
 - b) A nuclear power plant;
 - c) An enrichment plant;
 - d) A reprocessing facility.

This Act prevents Australia acquiring nuclear fuel enrichment and processing capability as well as the more obvious nuclear power plants, but does not specifically mention fuelling, refuelling or defuelling of nuclear reactors per se, for example with nuclear fuel sourced from elsewhere.

More recently there have been strident claims that renewable sources can meet all of Australia’s needs, albeit with appropriate energy storage to deal with diurnal solar and wind variability.[2] This claim has never been substantiated but is clearly not applicable to submarine propulsion, the subject of this essay.

Other recent interest in nuclear propulsion has arisen following the 2016 decision to acquire 12 regionally superior conventionally powered submarines to be designed and built under contract with Naval Group, formerly DCNS, in conjunction with Lockheed Martin.

The program has been slightly confused by the description of the design as ‘Short-finned Barracuda’ alluding to the Naval Group program to build nuclear powered ‘Barracuda’ class submarines for the French Navy, which provide the ‘reference’ for the Australian design. It has become clear however that the Australian *Attack-class* submarines will be a new *ab initio* design, in spite of the similar nomenclature.

Triennium	NPRM activity	Attack-class (AC)	Collins-class (CC)
2019-22	Repeal nuclear bans	Detailed design	
2022-25		Start construction	2024 Start LOTE
2025-28	Nuclear Propulsion Regulatory Authority		
2028-31	2028 Commit to SSN program		
2031-34	2031 Start construction SSN01	2032 AC01, 2035 AC02, 2037 AC03, 2039 AC04, 2041 AC05, 2043 AC06	2033 LOTE ends
2034-37			Exit 2036 CC01
2037-40	HLW Radioactive waste repository needed		2038 CC02, 2039 CC03, 2041 CC04 & CC05, 2043 CC06 [3]
2040-43	2040 SSN01 delivered		
2043-46	2043 SSN02 delivered 2045 SSN03 delivered		
2046-49	2047 SSN04 delivered 2049 SSN05 delivered		
2049-52	2051 SSN06 delivered		

Table 1: Roadmap Timeline comparison for Nuclear Propulsion and Current Submarine Programs.

The *Attack-class* program is very long term with the first of class being delivered in 2032 and achieving Initial operational Capability in 2034. Thereafter the follow-on boats will be delivered at a regular ‘drumbeat’ that is yet to be decided but should be no greater than 24 months to ensure no capability reduction, assuming the current six *Collins-class* boats receive a 10-year Life of Type Extension [LOTE]. The projected timeline reflecting these assumed intervals is shown in Table 1.

PROPOSAL FOR THE NUCLEAR PROPULSION ROADMAP

This brings us to the Roadmap proposed for introduction of nuclear propulsion to the Australian submarine force. I make no suggestion that the *Attack* or *Collins* programs should be changed. On the contrary they should be executed with dispatch resisting the imposition of any changes that would inevitably cause delays and also cost increases. A significant challenge for these programs is expanding the skilled workforce – civilian and uniformed – to carry out the program.

Advantages and Disadvantages of Nuclear Propulsion

Nuclear propulsion confers several advantages on submarine operations, notably higher speeds, greater endurance and avoidance of the vulnerability while snorting to recharge batteries. Nuclear propulsion also brings with it a number of major challenges that have not been faced by any other sector in Australia. Notably the regulatory, safety and operational standards for nuclear power plants are unknown to the energy industry or to the submarine enterprise in Australia. The extensive nuclear research and production of medical and other radioactive isotopes by the Australian Nuclear Science and Technology Organisation [ANSTO] [4] do not provide experience in industrial design, implementation nor decommissioning essential to nuclear power.

And therein lies the rub; the most common argument against nuclear propulsion for Australia is the lack of a nuclear power industry. But one only has to consider the case of Canada to conclude that there is more to it than that. Canada is a Tier 1 nuclear power nation conducting nuclear research and development and operating several nuclear power stations. In 1987 the Canadian Government decided it needed 12 nuclear powered submarines, especially necessary to operate under the Arctic ice cap. As time went by and the program was more closely examined, they withdrew from that decision due to the projected costs of the new nuclear-qualified infrastructure and workforce that would be required, and now are planning to acquire non-nuclear submarines with air-independent propulsion [AIP] for the same role. [5]

For Australia the role for the submarine force is fundamentally different to that of Canada. Australia has vast maritime regions on all sides and increasing strategic competition in all of those regions, Nuclear powered submarines [SSN] offer faster transit speeds to distant operational zones and avoid the vulnerability of periodic snorting to recharge batteries when detection probability is much increased. An SSN force would provide a significant increase in Australian strategic capability.

The downside is the much greater investment in nuclear safety, operational and sustainment expertise and the infrastructure necessary to operate and sustain the SSN fleet including refuelling, refitting, dry-docking, and ultimately decommissioning, defueling, decontamination and disposal of residual radioactive waste material. These latter steps have not yet been fully accomplished by the UK Royal Navy [6] which underlines this as being a major issue. For Australia it is imperative for an SSN program to be initiated that there be complete consideration of the full life cycle of the submarine reactor and all the nuclear fuel expended in that reactor being fully managed for the very long term for decay of radioactivity in reactor spent fuel waste material consigned to a geological repository.

With regard to the necessary investment that would be required for Australia to acquire nuclear propelled submarines, the recent book from Professor Hugh White 'How to Defend Australia' [7] makes clear that for Australia to acquire the defence capability to



USS SANTA FE in formation with HMA Submarines COLLINS, FARNCOMB, DECHANEUX and HMAS SHEEAN in West Australian Exercise Area (image LEUT Chris Prescott RAN).

defend her sovereign territory and national interests independently of great powers this ultimately depends on whether our economy fares well enough to afford the increased costs involved. This bears on the Canadian decision to step back from nuclear submarine acquisition, reflecting the very different strategic setting they face compared with Australia's evolving strategic outlook.

HISTORICAL CONTEXT FOR NUCLEAR PROPULSION

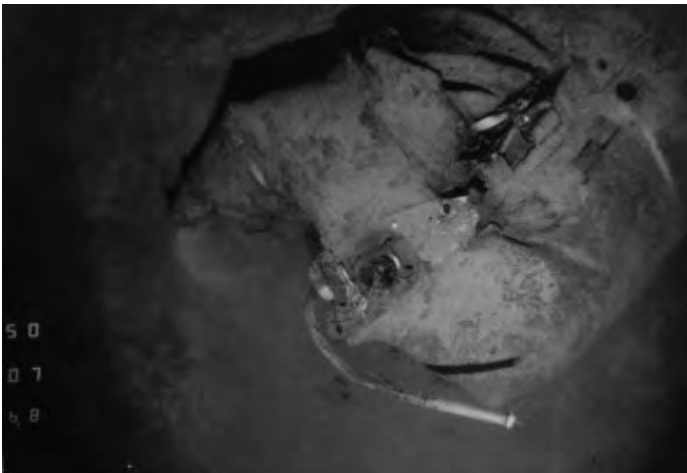
Nuclear propulsion was developed by the USA for the United States Navy [USN] at the start of the Cold War to provide the technological advantages of mobility and invulnerability to the USN submarine force opposing that of the USSR. The development was spearheaded by Admiral Hyman Rickover USN who was jointly responsible to the US Navy and to the US Atomic Energy Commission [AEC] for development of nuclear power reactors for both military and civil use. [8] This commonality of interest in the research and development effort and outcomes was important to its success in avoiding duplication of effort. However, in Australia's situation such duality can only occur after the legislated prohibitions cited earlier are lifted. Fortunately, there is a growing level of support for them to be repealed to enable nuclear power to be considered for an emissions-free energy future.

'Underway on Nuclear Power' USS NAUTILUS, 17th January 1955

USS NAUTILUS, the first nuclear-powered vessel, was delivered in 1954 and commissioned in 1955. Around the same time the Australian Atomic Energy Commission [AAEC] was established in 1953 to address the development of nuclear power for peaceful applications following the formation of the International Atomic Energy Agency [IAEA] within the *Atoms for Peace* initiative from the USA under President Eisenhower.

There followed the development of a variety of nuclear reactor designs applying differing technologies in several countries, among them Australia which made discrete contributions, but without the aim of developing nuclear power per se. Ultimately in Australia the accidents at Three Mile Island, USA, in 1979, and even more so at Chernobyl, Ukraine, in 1986, led to the disbandment of the AAEC and replacement, in 1987, with the ANSTO that we have today. [9]

Other significant events that might have had some bearing on Australia's ultimate adoption of nuclear propulsion include the loss of nuclear submarines USS THRESHER in 1963 and of USS SCORPION five years later. In neither case was the loss caused by any nuclear system or operational failure, but they nevertheless



Wreck of USS SCORPION (SSN 589) 3500Nm SW of the Azores - Forward Compartments.



USS NAUTILUS (SSN 571) entering New York.

caused the fundamental review of all matters related to the safe and sustainable design, construction, operation and maintenance of nuclear submarines in the US Navy and other navies following similar practices including Australia which had re-established a submarine capability in 1967.

The continuing evolution of nuclear attack submarines culminated in the current USS VIRGINIA class in the USN, the HMS ASTUTE class in the UK and the new *Barracuda-class* for the French Navy, and similar innovative designs in Russia and China. These submarines have all seen growth in displacement to carry a greater payload with accompanying growth in acquisition cost and in crew numbers, a major issue for a navy such as Australia's. [10]

This is of such significance that there is an emerging view that the next class of US nuclear attack submarines should be radically different in reduced size, cost, crew numbers and based on new technological approaches. [11] Included in this proposed approach is a return to the original mission and roles of the SSN namely intelligence, surveillance and reconnaissance [ISR] and anti-shiping, leaving land attack to other platforms. This would result in reduced displacement, and hence reduced crew numbers and unit costs.

There is also a desire for smaller nuclear reactors and greater use of automated controls where investigation of other reactor types is recommended, based on Generation 4 nuclear reactors [12] under current development, especially high temperature molten salt reactors [MSR] which offer a number of advantages over the current general use of pressurised water reactors [PWR], including simplicity and ease of refuelling.

The implication of this trend is lower unit costs and reduced crew numbers which means a greater number of units can be acquired for the same investment, and that will matter a great deal in the complex future strategic environment facing Australia that many envisage.

THE ROADMAP FOR AUSTRALIA TO ACQUIRE NUCLEAR SUBMARINES

The future path for Australia then is to define the journey to consider nuclear propulsion for our future submarine force and this requires a chart of the way ahead – a roadmap if you like. The starting point is this term of our federal parliament with three years to run from 2019 through 2022. The range of issues to be addressed includes the repealing of the federal and state legislation that has been catalogued in the Uranium Mining,

Processing, Nuclear Energy Review [UMPNER] Report of 2006. [13] Unfortunately, the UMPNER report and the more recent South Australian Royal Commission into the Nuclear Fuel Cycle [SARCNCFC] [14] both followed the line that the arguments for nuclear fuel processing and nuclear power were of primary interest and did not address the separate but related needs for nuclear propulsion. This seems to have been based on the widely-held view that the nuclear industry is a prerequisite for nuclear propulsion to be adopted in Australia. It is this assumption that we challenge here.

Firstly, the original development of nuclear propulsion was in advance of nuclear power for civil needs. [15] Admittedly this was in a tense geostrategic period at the start of the Cold War with recent stark demonstration of nuclear power in the bombing of Japan, and the following tests of atomic bombs by the USSR.

Then there is the highly disciplined attention to research and development of new materials for the reactors, and for the manufacture of reactor fuels, and the development and application of rigorous engineering standards and processes. This successful program in the USA was attributed to the many leading scientists and engineers who participated in the program, of whom the best known is Admiral Rickover.

Australian Regulatory Authority for Naval Reactors

For Australia there will certainly need to be a significant investment in the infrastructure essential to sustain an Australian nuclear submarine force. At each stage of the acquisition and sustainment life cycle the facilities that will be employed, the workforce that will work in those facilities and the standards and procedures that will be followed, must all be developed and certified by a competent national authority. The Australian Radiation Protection and Nuclear Safety Agency [ARPANSA] [16] would play an important role but would require an expanded charter or supplementation by a complementary agency similar to the US Office of Naval Reactors [ONR] to meet all requirements.

Sourcing of Nuclear Reactor and Nuclear Reactor Fuel

Most current nuclear submarines employ a pressurised water reactor [PWR] for reasons of simplicity with the cooling of the reactor core and moderation of neutron flux to achieve fission both provided by fresh water, and because the technology for the steam produced from the heat exchangers is well understood.

More recent interest is growing in the employment of advanced reactor types, such as the liquid fuelled molten salt reactor [MSR]

which has the potential for refueling while in service compared with the current major evolution to replace submarine fuel assemblies. MSR also operate at ambient pressures and possess a high safety margin on temperature limits. They also provide the option of using thorium-based fuel. [17]

Fuelling, Refuelling and Defueling Nuclear Fuel

The original processing of nuclear fuel varies with reactor type but generally starts with uranium ores to produce uranium oxide. The fuel contains mainly the fertile U238 as well as smaller quantities of the fissionable U235. Increasing the proportion of U235 is termed enrichment and the minimum degree of enrichment for nuclear reactors is relatively low, as compared with nuclear weapons which is much higher.

The fuel elements are packaged into pellets and the pellets packed into fuel rods of zircalloy needed to maximise the passage of neutrons essential to nuclear fission.

The nuclear fission process produces fission products within the fuel assemblies which must eventually be replaced with new fuel rods. For civil nuclear power plants this process is typically undertaken in two-yearly periodic activity, which clearly is not an option for nuclear submarines when the refuelling process requires major access by cutting through the submarine pressure hull. This has been the rationale for US and UK nuclear submarine nuclear reactors being fuelled with highly enriched uranium to permit operation without refuelling over the full service-life of the submarine. The drawback for this approach is the need to source highly enriched uranium fuel which is otherwise known as weapons grade from its use in nuclear weapons

Refuelling and Defueling must be undertaken in a sealed enclosure over the submarine hull to provide radioactive isolation while the pressure hull and reactor containment vessel are open.

Decontamination and Dismantling of Decommissioned Submarines

As has been noted in the media [18], the UK has not yet fully accomplished the decommissioning, defueling, decontamination and disposal of all twenty Royal Navy decommissioned nuclear submarines, as has been reported formally by the UK National Audit Office. [19]

These reports suggest the lack of a clear strategy for these processes from the beginning of the program to introduce nuclear submarines for both fast attack and submarine launched ballistic nuclear missile missions in the early stages of the Cold War. Much the same lack of life cycle thinking is evident in current Australian discussions on the need for nuclear power to be included in the portfolio of low emissions energy sources, and this will impede the acceptance of this proposal.

Disposal of Radioactive Waste Materials

Australia has been engaged in nuclear science and technology from a very early stage when the Australian Atomic Energy Commission [AAEC] was established in 1953 [20] Included in the many AAEC accomplishments was the invention of a means to encapsulate high-level radioactive waste in a glass-like substance given the name SYNROC, begun in 1982 [21] and only now coming to commercialisation for world-wide application. [22]

The separate question of where to locate a repository for the residual high level radioactive waste [HLW] has been considered in recent public inquiries, including UMPNER [23] and the more recent South Australian Royal Commission into the Nuclear Fuel Cycle which recommended the selection of geologically-stable sites for deep underground disposal of HLW.

ARPANSA has stated publicly [24] that the Australian Government is planning to build a National Radioactive Waste Management Facility to provide a centralised location for the disposal of Low-Level Waste [LLW] and storage of Intermediate Level Waste [ILW]. The HLW repository is needed for final disposal of the residual waste from reprocessing spent fuel. A further option for disposal of high-level radioactive material is by burning it up in advanced fast reactors. [25] This process is well understood within ANSTO but is not available for Australia with the OPAL reactor.

Nuclear Submarine Workforce – Uniformed and Civilian

A major challenge for an expanded submarine force is the recruitment, training, qualification and retention of a larger naval uniformed workforce. A similar challenge applies to the civilian workforce needed to sustain that larger expanded submarine force. With the move to nuclear propulsion this challenge is greatly increased by the stringent qualifications that must be obtained by the workforce, uniformed and civilian, and the need for greatly expanded education and training resources that will be required. This has been explicated in detail by Rear Admiral Peter Briggs AO CSC RAN (retired) in his Special Report on the subject. [26]

Maintenance and Other Facilities

There will be unique specialised facilities needed for nuclear submarines. In general, they all reflect the overriding concern for protection of the nuclear reactor core from all possible causes of damage or accident, especially leading to the release of any radioactive materials. First and foremost the reactor core temperature must be kept below the point where materials degrade irreversibly and lose their structural integrity, or worse still liquefy completely. This means a constant cooling function with necessary redundancy to deal with any potential single point of failure.

When the submarine is otherwise immobilised alongside a pier or in drydock for example the cooling supplies must be guaranteed at all times, and this requires significant investment in additional services.

In the event of an accident there must be a means to relocate the submarine to an isolation berth away from other facilities and civilian habitation.

ROADMAP FEATURES

This brings us therefore to the interrelationships among the several main activities in the nuclear propulsion roadmap. Some must be started at the beginning of the program; others must be committed but are not required for some years. Overall the program cannot be committed incrementally; once the requirement is agreed it must be for the full journey. A revolutionary step such as a major bridge is of no utility until completed, and neither is an incomplete nuclear submarine capability.

Some of the works may require further research and development to confirm the preliminary decisions made at the start of the program, for example to confirm critical materials and processes for which information is proprietary or withheld for other reasons. Such R&D is on the critical path. Other matters will benefit from the experience in other countries and programs that can be applied in Australia. These are judgements that must be made by competent Australian authority which needs to be established at the beginning with the legal authority and resources to see the job through to achieve successful outcomes.



Launch of French Navy Submarine SUFFREN (SSN Q284) of the Barracuda-class, 12 July 2019 (Image Marine Nationale).

CONCLUSIONS

Australia faces an increasingly complex geo-strategic environment in which a nuclear-powered attack submarine [SSN] force would make an extraordinary contribution

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. There are also a number of significant challenges inherent in moving to nuclear propulsion for future Australian submarines. Some of these challenges are also applicable to a potential future nuclear power industry for electricity generation and industrial energy.

However, 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.

Challenges facing the introduction of nuclear propulsion are discussed in this essay under three main headings: 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.

This paper introduces a Roadmap that is proposed to describe the milestones to achieve nuclear propulsion capability. ■

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*** Nuclear Technical Roadmap®**

Disclaimer: this essay is an expression of the views of the author tempered by comments from a private venture group of eminent former scientists, engineers, submariners and businesspeople. It has not been endorsed by the Navy League of Australia, the Australian Naval Institute, the Submarine Institute of Australia, The United States Naval Institute and Naval Submarine League nor any other of the organisations of which the author is a member.



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23. Op.Cit
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PLAN Type 071 LPD JINGGANG SHAN (999) disembarcking ZBD-05 IFV (Amphibious Fighting Vehicle).

ROYAL THAI NAVY ORDERS PLAN TYPE 071 LPD

Continuing its China-tilt, following criticism and perceived lack of support from Western nations during the 2013-16 crises and the adoption of a new constitution by the Military in 2017 – paving the way for a return to democracy – the Royal Thai Navy has signed a construction agreement with China for a variant of the Type 071 landing platform dock (LPD). The Type 071 has an overall length of 210 m, an overall beam of 28 m, and has a standard displacement of about 20,000 tonnes.

Both Myanmar and Thailand have in recent years, following criticism on Human Rights from Western Nations and NGOs in particular, looked for support from China.

Thailand, Myanmar, along with Cambodia and Laos, form a pro-China leaning block within ASEAN. Thailand has sought generally to balance its military procurement between China and the West, but in recent years – specifically regarding its Navy on submarines and assault ships – it has looked towards China and the PLAN.

There are two pivotal regions in South East Asia. One is the South China Sea; the other more important region is the Mekong Delta. Both are of existential importance to ASEAN nations, and connect directly with China.

The Global West, through its ethical pursuit of political-identity rights, is at risk of doing more harm than good and surrendering the moral high ground in the region. This is having knock-on consequences, including for important regional allies such as Singapore, Malaysia, Vietnam, Singapore, Indonesia, and The Philippines.

CHINA REASSERTS VIETNAMESE OIL & GAS CLAIMS

According to the U.S. DoD, in August China resumed its coercive interference in Vietnam's longstanding oil and gas activities in the South China Sea, directly contradicting Chinese Minister of Defense Wei Fenghe's pledge at the Shangri-La Dialogue that China would "stick to the path of peaceful development."

Vietnam made contact with China to oppose its repeated serious violations and demand the country withdraw its survey vessel group HAIYANG DIZHI 8 and escort ships out of Viet Nam's territorial waters, according to its Foreign Ministry's spokeswoman Le Thi Thu Hang. She stated:

The waters totally belong to Viet Nam's sovereign right and jurisdiction as defined in the 1982 United Nations Convention on the Law of the Sea (UNCLOS).

China's actions follow a multi-path strategy, including the carrot – its one belt and one road (OBOR) policy – and its stick, the Dragon's Spear policy. Its actions seek to persuade regional allies, while coercing ASEAN claimants who seek alternative resolution (including through international arbitration, such as the Philippines at the Hague). Currently its policy of divide and rule appears to be working and ASEAN remains divided on the subject; favouring the current status quo – which essentially gives *de facto* status to Chinese claims/builds in the South China Seas.

PHILIPPINE MARINES CONDUCT FIRST SHIP-TO-OBJECTIVE- MANOEUVRE OPS

The Philippine Marines Corps has carried out its first ship-to-objective manoeuvre (STOM) operations with amphibious assault vehicles from the Landing Platform Dock ship BRP TARLAC (LD-601).

BRP TARLAC was constructed along with the second in the class, BRP DAVAO DEL SUR (LD-602), at the PT PAL facility in Surabaya, Indonesia, and commissioned in June 2016 and May 2017, respectively.

This marks a significant increase in Philippine and regional amphibious capability and capacity. Both the Philippines and Indonesia have been involved in long-standing, regional counter Islamic terrorism operations – often with limited support from the West, and considerable criticism from its Western political elites; their associated media and NGOs.

INDIA REVIEWS ITS SHIPBUILDING PLANS

Embarrassed by the shooting down of an Indian Air Force MIG-21 by Pakistan Air Force in April 2019, India has also faced recent criticism for the slow pace of its naval rearmament and modernisation programmes being undertaken through the [2012] Maritime Capability Perspective Plan (MCP) and the Long Term Integrated Perspective Plan (LTIPP).

The shipbuilding programme is dominated by state-owned Defence Public Sector Undertaking (DPSU) shipyards, with minimal private company involvement. Few of more than 50 shipbuilding programmes have delivered in a timely way, within budget, against public project timelines. Cost blow outs in excess of 40% are not uncommon.

The Indian Navy, facing increased regional competition – including by PLAN and the Pakistan Navy – is seeking to rebalance its Peninsula and Bay (Mackinder) policies for the defence of its sea lines of communication in the Indian Ocean, the Andaman Sea, the Bay of Bengal, and the Arabian Sea. This has been seen through an increased international presence of the Indian Navy; while working more closely with regional navies, ASEAN and with the U.S., Japan, and Australia.

In continuation of the Indian Navy's overseas deployment to Africa, Europe and Russia, Indian Naval Ship TARKASH (F50) made a port visit at Walvis Bay, Namibia in September 2019.



Type 31e Frigate (Image Babcock).

INDIAN NAVY SCORPÈNE-CLASS COMMISSIONING

The Indian Navy commissioned the second of its six licence-built *Kalvari-class* (Scorpène) diesel-electric attack submarines INS KHANDERI (S22) in a ceremony held by Defence Minister Rajnath Singh at the Naval Dockyard in Mumbai on 28 September.

This has been a somewhat troubled build for both India and France's NAVAL GROUP (then DCNS), following the leak of classified build plans in 2016. It had originally been thought that the commissioning would be deferred until early-2020, to allow over thirty significant observations/deficiencies to be put right. Including, apparently, unacceptably high engine and propeller raft noise levels, and issues with on-board sewage treatment plants.

UNHAPPY PARALLELS?

There are lessons to be learned from the *Kalvari-class* by Australia's allegedly increasingly unhappy, poorly led, long-term *Attack-class* submarine build programme. Considerable risk has been identified by the prolonged Australian procurement programme (including by Hugh White, ASPI). The programme manages the build and design of essentially a new class of submarine between a U.S. Prime, Lockheed Martin, and a French military industry complex, NAVAL GROUP.

The quality and ability of design and build leadership in Australia, as supplied by contractors (including Commonwealth Australian Public Service (APS) Directors imported mostly from U.S.) appears highly variable; not necessarily matched to local Australian and French engineers and designers – Defence (APS/DSTG) and local manufacturers.

To reduce risk and bring forward the build programme, NAVAL GROUP has long advocated the build of the first two submarines in France, and the bringing forward of these builds to the early 2020s – as opposed to early 2030s. This appears entirely sensible and would provide a better bases for transferring sovereign knowledge to Australia, *in situ* – while removing deadwood from the programme. Understood to be forthcoming reviews of the Australian National Shipbuilding Plan and the *Attack-class* programme are likely to consider these and other issues.

RUSSIAN NAVAL REBUILD

The Russian Navy will receive six submarines, including four nuclear-powered submarines in 2020 – the first time it has achieved such a build and delivery (Fleet Refresh) rate since 1992.

Following the dissolution of the Soviet Union in 1992, Russian submarine shipbuilding collapsed to one or two new submarines a year. This reversed in 2013, following the adoption of a new Admiral Gorshkov-inspired build programme – emphasising blue water asymmetric hybrid operations based upon “both hands” of submarine and amphibious land-maritime denial.

Under existing contracts, the Sevmash shipyard is due to deliver the first Project 955A serial-produced submarine KNYAZ OLEG [PRINCE OLEG] and the first Project 885M serial-produced submarine NOVOSIBIRSK to the Russian Navy in 2020. The submarines are due to be fitted / operate with *Poseidon* underwater (nuclear powered) drones.

GREENWICH STATION

The beleaguered UK PM Boris Johnson announced five new Royal Navy frigates

will be built in the UK in an effort to “bring shipbuilding home”.

The Prime Minister revealed that engineering giant Babcock is the preferred bidder for a \$2.5 billion contract to build the new frigates, and the contract is expected to be awarded by the end of 2020. He stated:

The UK is an outward-looking island nation and we need a shipbuilding industry and Royal Navy that reflect the importance of the seas to our security and prosperity.

Babcock Team 31 was selected by the UK Ministry of Defence (MOD) as the preferred bidder to deliver its new warships. Led by Babcock, the Aerospace and Defence company, and in partnership with the Thales Group, the T31 general purpose frigate programme will provide the Royal Navy with a fleet of five ships, at an average production cost of \$450 million per ship.

Following a comprehensive competitive process, *Arrowhead 140*, a capable, adaptable and technology-enabled global frigate – previously considered a Corvette – will be the UK Royal Navy's newest class of warships, with the first ship scheduled for launch in 2023.

The programme is expected to employ a workforce of 1250 in multiple locations throughout the UK, with around 150 new technical apprenticeships likely to be developed.

Babcock's ex HM Naval Base Rosyth facility will be the central integration site (as for HMS QUEEN ELIZABETH (R08) and HMS PRINCE OF WALES (R09)); supporting the principles of the National Shipbuilding Strategy.

Victor Chavez, Chief Executive of Thales in the UK said: “Thales is delighted to be part of the successful Team 31 working with Babcock and has been at the forefront of innovation with the Royal Navy for over 100 years. Thales already provides the eyes and ears of the Royal Navy and will now provide the digital heart of the UK's next generation frigates”.

Work on the fleet of five ships will begin immediately following formal contract award later this financial year, with detailed design work to start now and manufacture commencing in 2021 and concluding in 2027. This will only give the UK 13 Frigates (8 T26 and 5 T31e) plus 6 T45 or, 19 in total. Exactly the number of FF/DD UK has today, and which is singularly failing to meet requirements as set against actual demand. The UK needs 40 FF/DD. These antiquated designs will simply not provide the numbers and scale required even to cross the start line. ■



CHANG YUNG-FA (1927-2016)

Chang Yung-fa did what many officers and masters dream of aspiring to, he founded his own shipping company – Evergreen Marine Corporation.

Born in Taiwan in 1927, which was then under Japanese rule, his family moved to Keelung when he was 7 and at the age of 18 after completing High School he went to work with a Japanese shipping line and continued his education by taking night classes. After World War II he joined a local shipping line as Third Officer and in subsequent years he progressed to Captain.

In 1961 with some friends he established a shipping company and having helped the company to develop, he decided to branch out on his own establishing Evergreen Marine Corporation in 1968 with one second-hand 15,000 ton vessel the 'Central Trust'. In the space 4 years he built up a fleet of 12 ships, and within a year was operating to the Middle East, then the Caribbean. In 1975 realising that containerization was the way forward he built 4 S-type container ships and launched first a service to the US East Coast, then a US West Coast service followed.

By 1984 he has started 2–80 day round-the-world services circling the globe in both Easterly and Westerly directions departing every 10 days and employing 20 G-type container ships of 2,728 capacity. It currently operates a fleet of around 150 ships.

In subsequent years the Evergreen Group has expanded into heavy industry, airlines, resorts and hotels. During his lifetime Chang received many international awards and honours including a CBE from the British Government.

In Australia, Master Mariners were well represented in the foundation of many of our old shipping companies, to name a few :

Howard Smith Limited

Founder Capt. William Howard Smith.

Melbourne Steamship Co.

Co-Founders Capts J. Deane & McIntyre.

Huddart, Parker & Co.

Founders Capt Webb. William & Thomas

William Holyman & Sons

Founder Capt. William Holyman.

James Patrick Steamship & Co. Ltd.

Founder Capt. James Patrick

UK FLAG ABANDONS GROWTH TARGETS AS BREXIT WIPES OUT 30% OF TONNAGE

Richard Meade writes: the UK Ship Register, which previously set a target to double the size of the flag, has lost more than a third of its tonnage in the past 12 months, largely because of commercial concerns from owners regarding Brexit. While the threat of a Brexit-fuelled exodus for the UK flag has been looming for some time, several major shipowners have quietly been making good on their threats to pull tonnage in the face of financial and political uncertainties surrounding the exit of UK from the European Union.

LORD JAMES DE SAUMAREZ (1757-1836)

The character reference in *The Oxford Companion to Ships & the Sea*, caused us to pay heed to this remarkable man, it reads: -

“A man of attractive qualities and admirable judgement, he was eminently brave in battle and was always willing to take a risk if possible advantage could justify it”.

He was, wrote Sir William Hotham, ‘in his person tall and having the remains of a handsome man; rather formal and ceremonious in his manner, but without the least tincture of affectation or pride, .. more than attentive to his duty to God; but, with the meekness of Christianity, having the boldness of a lion, whenever a sense of duty brings it into action.”

In 1775 at the age of 18 he joined HMS BRISTOL in North America and saw action in a number of battles during the American Revolutionary War including the Battle of Sullivan's Island, Rhode Island before he returned to Portsmouth.

In 1781 while serving in HMS FORTITUDE he participated in the Anglo-Dutch War and was wounded during the Battle of the Dogger Bank. He returned to the Americas in 1782, first in command of the fireship TISIPHONE and later in the same year in command HMS RUSSELL contributing to Admiral Rodney's victory against the French in the Battle of the Saintes in the Caribbean and assisting in the capture of de Grasse's flagship VILLE DE PARIS and earning the Admiral's praise.

In 1795 after being promoted to the 74-gun HMS ORION as part of the Channel Fleet he joined Admiral Jervis' where he distinguished himself at the Battle of Cape St. Vincent against the French and Spanish fleets. The Battle of Cadiz followed in 1797 and Battle of the Nile in 1798 where he served as Nelson's second-in-command, though their relationship was said to be strained.

In 1808 he was given command of HMS VICTORY and the Baltic Fleet which was used to protect British trade and blockade German and Russian ports under control of the French and the fleet hampered Napoleon during his invasion of Russia in 1812. After the War, he was made Commander in Chief, Plymouth and was raised to the peerage as Baron de Saumarez.

Saumarez is fictionalised in several naval books, including *C.S Forrester* books and by *Paul O'Brian*. ■

Source: Wikipedia & Oxford Companion to Ships and the Sea.



Ever Glory arriving Rotterdam Aug, 2019. Built 2019, LOA 399.98 m, Beam 58.96m, Dwt 198,937 tonnes. Image Luc van Haute Marine Traffic (MarineTraffic.com)

THE CREATION AND ESTABLISHMENT OF THE JAPANESE NAVY – PART 4

THE RISE AND FALL OF THE IMPERIAL JAPANESE NAVY 1923-1945

By Kanazawa, Hiroyuki, and Reay Atkinson, Simon

The two authors undertook to write this paper out of respect for the past, an enduring love of our countries and navies and in honour of those sailors who fell during both world wars – many connecting to generations of seafarers. That is not to forget our pasts for it is our duty to learn from our histories so we do not make the same mistakes. We share a common bond, the sea. Our countries have been Allies for far longer than they have ever been enemies – and in these unstable times, blood and shared sacrifice is thicker than water. We speak of the past and to shared futures – for there is a sense, in the Indo-Pacific region, that we will need to keep our powder dry if we are to successfully navigate the shoals of today and tomorrow, together.

Family names precede first names in this article, as per the traditional Japanese naming style.

INTRODUCTION

Haiku in its purest form translates into three lines, which the authors have written in memory of both our Navies and the Sailors that have served in them; those who are serving today; and those who are yet to serve:

English

Seas eternal call

Australia as Japan

May to Blossoms Fall

English-Japanese

海は永遠に呼びかけ続ける
オーストラリアと日本の絆を
オーストラリアで花散る頃日本では花が咲き
日本で花散ればオーストラリアで蕾がほころぶ
花は永遠に海を渡り続ける

Expanded English

Seas have called us,

Australia and Japan since ancient time

Blossom blooms every Spring and Fall

A fuller version of the transliterated Haiku poem (keeping to the same three line and (5-7-5 syllables)) may read as follows.

Seas eternal call

A mariner's lonely watch

Pacific bond eternal

Tides essential turn

Australia as Japan

common arms again

Times every season

Waiting fates evasive turn

May to Blossoms Fall

ALL GLORIES MUST FADE [1]

The period of the 'Western Impact' in the 19th century set in motion the impetus for Japan to create a modern navy. Through the civil war in the 1860's, the first Sino-Japanese War (1894-95), Russo-Japanese War (1904-05), and WWI (1914-18) Japan grew to become the third largest maritime nation, after the UK (including the RN, RAN and the Royal Indian Navy) and the USN. Japan, who's Navy fought with distinction during WWI, joined with the victorious Allies to develop an international cooperation policy at the Washington Naval Conference (1921-22). Divisions at the Conference, including between the U.S. and UK [2], and a perceived demeaning approach to Japan (including by Australia's WWI Prime Minister Billy Hughes) [3], led in part to growing international isolation in the 1930s. Exacerbated by expansionist military factions within Japan and emboldened by the 1904-05 defeat of Russia, and what Japan saw as the decadence and failure of the Western powers. The destiny of Japan and specifically the policies of the Japanese Army (if not initially the Japanese Imperial Navy (IJN)) changed irrevocably over this period towards expansion. Expansionism that would inevitably place Japan in conflict with the Western Powers and China.

RETURN TO THE NAVAL ARMS RACE: 1923-1936

The purpose of the 1930 London Naval Conference on disarmament [4] was to limit and reduce 'auxiliary' ships (cruiser and aircraft carriers of less than 10,000t – destroyers, submarines, etc.) which had not been covered by the Washington Naval Treaty. During the conference, Japan insisted on keeping 70 % of its 'auxiliary ships', compared to those held by the U.S. After heated and widely seen to be discrediting argument, Japan failed to achieve its aims. In particular, the IJN felt penalized by the proportion of heavy cruisers it was relegated, when compared to the U.S. and UK. Adding to the difficulties confronting successful implementation of the Conference treaties, Admiral Baron *Kato Tomozaburo* the Minister of Navy – a strong proponent of the Washington Naval Treaty – died in 1923. His successor, Admiral *Takarabe Takeshi* (1867-1949), lost face as one of the plenipotentiary delegates of the London Naval

Conference, which was widely seen to have failed. Consequently, he could not forge agreement and consensus amongst the IJN Admiralty and wider, more hostile, factions forming in both the Army and Navy. The confrontation between the Navy Ministry, supportive of approving the treaty, and the Office of the Navy General Staff, opposed to the treaty, further divided the IJN into two schisms: the *Jyoyaku-Ha* (Treaty faction) and the *Kantai-Ha* (Fleet faction).

Table 1: Proportion of auxiliary ships in the London Naval Treaty.

	U.S.A	U.K.	Japan
Heavy cruiser	10	8.1	6.02
Light cruiser	10	13	7
Destroyer	10	10	7
Submarine	10	10	10
Total	10	10	6.975

Kantai-Ha had as its titular lead Marshal [5] Admiral Count *Togo Heihachiro*, who was used largely as a figurehead to support the machinations of the *Kantai-Ha*. After the Russo-Japanese War, *Togo* became a national hero; receiving the title of Marshal in 1913. In his later years, he was sometimes exploited by the hawks and conservatives in the IJN to suit their factional purposes; not necessarily those of Japan and the wider Navy. In 1931, Admiral *Fushiminomiya Prince Hiroyasu* assumed the role of Chief of the Naval General Staff. He was both head of the prestigious Miyake [6] and a 'real sailor', who had fought and been wounded at the Battle of Yellow Sea, in 1904. *Fushiminomiya* and *Togo* were nicknamed 'Imperial Highness and God' by the IJN and they had powerful influences throughout the Fleet.

The *Kantai-Ha* in the Naval General Staff, with the help of the prestige they levered through *Fushiminomiya*, were prestigious in acquiring the organizational (structural) power needed to suborn the authority of the Ministry of Navy. Later, these sub-directorates became the factional bases of the IJN hawks – ultimately leading them to oppose the policies of the Cabinet [7] and to dictate (with the Imperial Japanese Army) Japan's Foreign Policy. Through factional manoeuvring, the 'international cooperation policy' was kept alive until the first half of the 1930's – but it had been mortally wounded [8]. In the 2nd London Naval Conference (1935–36), Japan [9] and Italy [10] broke away from the conference and the Treaty lost all its effectiveness. Consequently, the naval arms race resumed – but the U.K. and Australia were notably slow to start.

Britain, in August 1919 adopted the "Ten Year Rule" set by the Treasury and dictating that its armed forces should draft their estimates "on the assumption that the British Empire would not be engaged in any great war during the next ten years". Sensible at the time, the problem was that the clock was never started. Every year until 1932, the clock was reset. In 1936, Britain was planning on a great war in 1942, not 1939, and had only just begun rearming. To make matters worse, planning for War in the Far East was based upon the fatally flawed "Singapore Strategy". Unlike New Zealand, Australia refused to fund the strategy – citing specifically identified failures in the plan.

Following significant investment in the RAN in the 1920s (seen to be at the expense of the Army and RAAF and fomenting factional discontent in both these Services, and the Australian Labor Party (ALP)), significant cuts were imposed after the Great Depression (1929-1939). The RAN only began to rearm in the early 1930s, largely based on ageing WWI British Destroyers, transferred to the RAN by the RN in 1933. Called the "Scrap Iron Flotilla" by Joseph Goebbels, the ships nevertheless went on to fight with distinction in the Mediterranean and Pacific theatres during WWII.

No longer limited by Naval Treaty, Japan started to build the *Yamato battleship class* 64,000t, 46cm gun×9), in 1937. YAMATO and her sister ship MUSASHI were commissioned in 1941 and 1942.



Battleship IJN YAMATO.

In retrospect, the Washington Navy Treaty acted to the advantage of the U.S. Navy and to the further disadvantage of the Japanese Navy. For, rather than concentrating on building more Battleships (as in Japan), the USN took forward experimental concepts and designs for developing its submarine and carrier strike fleets.

In 1921, the British Empire "Imperial Conference" sought to determine "a unified international policy, particularly regarding the relationship with the United States and Japan". The Prime Ministers of Britain and the Dominions were "asked whether or not to renew the Anglo-Japanese Alliance" – due to expire on 13 July 1921. Prime Minister's *Hughes, Billy* and *Massey, Bill* (New Zealand) strongly supported its renewal. Neither wanted to be caught in a war between the United States and Japan, and recognised the generous assistance that Japan provided during WWI, compared with the late entry of the U.S. (in 1917) and U.S. "isolation from international affairs in its aftermath". They were opposed by both the UK and Canadian Prime Ministers on the grounds that "the alliance might adversely affect the relationship with the United States". As a result, the alliance was allowed to lapse. While the 1922 Washington Naval Treaty "prohibited the fortification of islands in the Pacific", Singapore was specifically exempted. The die was cast.

THE SINGAPORE DEBATE

The Australian Labor Party (ALP) from opposition in 1923 put forward an alternative to the "Singapore Strategy", calling for "Australia's first line of defence to be a powerful air arm, supported by a well-equipped Australian Army that could be rapidly expanded to meet an invasion threat – and also requiring a strong munitions industry". At the time, the Australian Army was also fighting its own inter-Service war (chiefly against Navy) to retain funding and relevance. Both the ALP and the Australian Army widely quoted Rear Admiral *Fullam, William Freeland* USN who argued against battleships (and the U.S. Marine Corps):

The world is facing a new era, an era which will bring aeronautics to the front and give it a proper place in peace and war...The aeroplane will be the dominating factor in future

wars on land and sea...It is the duty of every naval officer to study and develop the usefulness of the aeroplane as a weapon.

In this [the U.S.] must lead the world, we must not follow.

In 1926, Lieutenant Colonel *Wynter, Henry* (Australian Army) delivered a lecture to the United Services Institute of Victoria, in which he argued for "the Strategical Inter-relationship of the Navy, the Army and the Air Force: an Australian View". The article was published in the April 1927 edition of *British Army Quarterly*, echoing similar concerns in the British Army. *Wynter* considered that "war was most likely to break out in the Pacific at a time when Britain was involved in a [war] in Europe, which would prevent Britain from sending sufficient resources to Singapore". He contended Singapore was "strategically vulnerable, from land and the air; necessitating a balanced policy of building up the Army and RAAF". This translated into an Army and ALP mantra that "while Australia does not doubt Britain is sincere in its beliefs, we do not think you will be able to [defend Singapore]".

Shedden, Sir Frederick Geoffrey, who served as Secretary of the Australian Department of Defence from 1937 to 1956, wrote a paper in 1928 (while at the Imperial Defence College, in London) arguing "that since Australia was also an island nation, it followed that it would also be vulnerable to a naval blockade". He stated: "if Australia could be defeated without an invasion, the defence of Australia had to be a naval one". Colonel (later Lieutenant General Sir) *Lavarack, John Dudley* (Australian Army, and first Australian-born Governor of Queensland) – whose career was to be negatively impacted by both General (later Field Marshal) *Blamey, Thomas* and General MacArthur, Douglas – fiercely disagreed. In his rebuttal, *Lavarack* argued, *inter alia*: "that the vast coastline of Australia would make a naval blockade very difficult, and its considerable internal resources meant that it could resist economic pressure".

Rear Admiral *Richmond, Sir Herbert* (RN), the Commander in Chief, East Indies Station (sometimes referred to as the "British *Mahan*"), while, on the one hand pointing out the circularity of the "Singapore Strategy" (that would inevitably draw "Japan out to fight"), also attacked the Australian Labor Party's position in an article in a 1933 issue of the *British Army Quarterly*, which was also fiercely rebutted by *Lavarack*. In 1936, the then leader of the opposition (and future wartime Prime Minister) *Curtin, John* read out *Wynter's* objections to the House of Representatives. This created partisan tensions within Australian politics. It was one of the reasons why – unlike in the UK – a government of national unity comprising conservative (Liberal) and Labor MPs / Ministers was never formed in Australia. It was also one of the reasons *Menzies, Robert* Liberal PM at the start of the war, replaced *Lavarack* as Chief of the General Staff with Lieutenant General *Squires, Ernest* (British Army).

THE SECOND SINO-JAPANESE WAR: 1937-1945

On September 9, 1931, following the railroad bombing in the suburbs of Fengtian [11], the *Kwantung Army* (the Japanese Army stationed in Manchuria) started military action and brought all of Manchuria under their control (the Manchurian Incident). The railroad bombing was instigated by the *Kwantung Army* in order to create the puppet state of Manchukuo. They made the Emperor

Puyi (1906-67: the last emperor of the Qing Dynasty) their nominal administrative regent and later Emperor (of Manchukuo / Great Manchuria). Refusal by the League of Nations to accept the new country, and limited international recognition caused Japan to withdraw from the League of Nations in 1933 and move towards increased international isolationism.

On July 7, 1937, an unexpected military engagement occurred in the suburbs of Beijing known in Marco Polo Bridge Incident in English [12]. Before long, it expanded to total war between China and Japan and the 2nd Sino-Japanese War.

The IJN reorganized the China Area Fleet and established a guard and security patrol in the basin of the Yangtze River and along the coast of North China, supported by air operations. At this time, naval aviation maintained higher manoeuvrability than other forces due to its intensive training during the early Interwar Period. The *Zero* fighter plane that went into commission in 1939, initially overwhelmed allied Air Forces planes through its higher manoeuvrability and its better-trained, experienced pilots.



Zero Fighter Planes.

THE PACIFIC WAR: 1941-1945

(1) Outbreak of War: The Attack on Pearl Harbor and The Naval Battle off Malaya

After WWI, Japan and the U.S. increasingly came into conflict on Asia and Pacific policy. Consequently, the IJN began to study how to fight the US Navy as an imaginary enemy. Vice Admiral *Yamamoto Isoroku* (1884-1943, promoted to Admiral in 1940), assumed Command of the Combined Fleet in 1939, having developed the strategy for an aerial attack of overwhelming Japanese strength [13] on Pearl Harbor, the base of the U.S. Pacific Fleet – in order to 'knock out' America. Ironically, *Yamamoto* was against war with the U.S.A. and, as Undersecretary of the Navy, tried to prevent Japan agreeing to the Tripartite Pact between Japan, Germany and Italy in 1940.

On December 8, 1941 (Japan time), the Japanese 1st Air Fleet led by Vice Admiral *Nagumo Chuichi* (1887-1944 (after his death, promoted to Admiral) made a surprise attack on the U.S. Pacific Fleet in Pearl Harbor. Three hundred and fifty airplanes from 6 aircraft carriers sunk 4 battleships, wrecked another, and destroyed 188 aircraft. Though the surprise attack succeeded, the Japanese 1st Air Fleet failed to sink the U.S. aircraft carriers and destroy strategic fuel supplies. *Yamamoto* had planned the destruction of the fuel supplies, even at the cost of his aircraft carriers following a counterattack. His intentions were not communicated to *Nagumo* and, as a result, *Nagumo* failed to implement the 2nd strike against the strategic reserves. His decision had significant implications for the Pacific war.



Admiral Yamamoto Isoroku

Born in a Niigata Prefecture as the fifth son of a former Samurai, he served at the Battle of Tsushima in 1905 as a midshipman and injured left hand and left leg. In 1924, he turned his specialty from gunnery to aviation and focused his effort on raising the naval aviation corps. He died in the skies above Bougainville Island, shot down by U.S. fighter planes. After his death, he was promoted to Marshal.



HMS PRINCE OF WALES, flagship of Force Z, approaching Singapore Naval Base, 2 December 1941 (Image Lt Palmer, IWM).

Two days later, on 10 December, 85 aircraft of Japanese naval aviation attacked British battleship HMS PRINCE OF WALES (36,737t) and battle cruiser HMS REPULSE (38,200t) off the eastern Peninsular of Malaysia; sinking both. Admiral *Phillips*, *Sir Thomas Spencer Vaughan* (1888-1941), the Commander of British Eastern Fleet shared the fate of his flagship. The impact of these two naval battles on the world was immeasurable. The subsequent loss of Singapore (15 February 1942) described by *Churchill*, as "the worst disaster and largest capitulation in British history", also spelled the end of the British Empire. From then on, the leading role in naval warfare moved from battleships to aircraft carriers (and submarines).

SHOCK AND AFTERMATH

The shock to Australia was profound and irrevocable. As a recently federated nation, in WW I Australia suffered over 60,000 fatalities and forty percent of its deployed forces (of 331,781) were wounded, sometimes more than once. Estimates now suggest that many of the returning soldiers suffered from undiagnosed PTSD (then called shell shock), potentially taking the overall casualty rate up to 67% (220,000). As a percentage of forces committed, those killed and physically wounded equalled a casualty (attrition) rate of almost 65 per cent, one of the highest casualty rates amongst British Empire forces. [14] Australia in 1921 had a population of about 5 Million. Noting larger families at the beginning of the 20th Century, over 40% of Australia's population had a relation who had served; one third with a deployed service person; and, after the war, almost 25% with a wounded or injured serviceman [15] - including those suffering from PTSD.

It is estimated by Professor *MacLeod, Roy* (University of Sydney) that the metaphysical shock to the young nation meant that it had not recovered by 1939. He further speculates that it has taken Australia 100 years to recover, so profound was the shock between 1917 and 1919. In many regards, the shocks to Australia in 1917 and in 1942, meant the high hopes of Federation were never fully realised. *Reay Atkinson* and *Bogais* (2018) speculate that this meant that Australia may never have fully assumed its own sovereignty, exchanging one suzerainty (Britain), for another (U.S.). [16]

The Australian Army fought with distinction in the Middle East and

Table 2: Force ratio between IJN and U.S. Navy in 1941.

	IJN	USN
Battleship, & Battle Cruiser	11	9
Aircraft carrier	8	3
Heavy cruiser	18	13
Light cruiser	23	11
Destroyer	129	80
Submarine	67	56
Total	1,001,000t	1,439,000t

Greece during the earlier stages of WWII. Like their forefathers before them, they earned a reputation as 'the Empire's Shock Troops'. The Royal Australian Navy (RAN) fought alongside the Australian and British Armies in fighting retreats from Greece (and Crete), and then supporting the more fluid desert war, and at Tobruk. The RAAF was considered to have the best aircrews of the European campaigns. In some respects, the beginning of World War II was a repeat of WWI, with Australian Forces deployed overseas fighting another European war. From 1942 it was profoundly different. The Australian Army performed well in the Malay Peninsula campaign, but could not prevent defeat at Singapore. The Australian Army (unlike the New Zealand Army that continued to fight in Europe) rarely (if ever) deployed in combat, in such strength under its own command during the rest of WWII.

(2) The Battle of the Coral Sea

The *Battle of the Coral Sea* was the **Battle for Australia**: [17]

Rear Admiral Robertson, Andrew AO DSC RAN (Rtd.), who joined the flagship HMAS AUSTRALIA as a Midshipman four months after the Battle of the Coral Sea, wrote *inter-alia* [17]:

By April 1942 powerful Japanese naval forces under Admiral Inouye in his flagship at Rabaul were poised to strike south to cut off Australia from U.S. support and prevent the use of Australia as a base for a repost against Japan. The U.S. decided that this move must be defeated and two aircraft carriers (USS LEXINGTON and YORKTOWN) with strong forces of cruisers, destroyers, submarines and support ships were sent to the South-West Pacific.

Australia provided the Heavy Cruiser HMAS AUSTRALIA, and the Light Cruiser HMAS HOBART under Rear Admiral Sir John Crace RN (an Australian serving in the Royal Navy) and elements of the RAAF.

The Japanese plan was to strike southwards in two thrusts – to take Tulagi Island in the Southern Solomons followed almost immediately by a major assault on Port Moresby, the airbase and centre of New Guinea administration in the Coral Sea.

Without a doubt, May 7, 1942, vicinity of Coral Sea, was the most confused battle area in world history [18]

The Battle of the Coral Sea was the first in a new form of naval warfare between aircraft-carriers in which neither side sighted their opponents, took place from 4 to 8 May. The passage of weather fronts and much false reporting by reconnaissance aircraft on both sides caused confusion as each side tried to find the other at long range. Indeed, on one occasion a confused Japanese pilot tried to land on a US aircraft-carrier!

The main actions took place on 7th May. The small Japanese aircraft carrier IJN SHOHO was sunk and the SHOKAKU was heavily damaged. The ZUIKAKU had major losses of aircraft and trained aircrew. Neither Japanese carrier was able to take part in the decisive Battle of Midway which took place three weeks later.

The U.S. lost the USS LEXINGTON – one of the two largest carriers in the world – after being hit by torpedoes and bombs and later a huge fire on board. The carrier YORKTOWN was damaged but after a herculean repair effort in Hawaii was able to join US carriers in the Battle of Midway. A USN tanker and a destroyer were also sunk.

After the sinking of the SHOHO the Japanese withdrew the Port Moresby invasion force and its powerful covering forces. Admiral Crace's Australian/American task force (including HMAS AUSTRALIA and HMAS HOBART) which had been detached to attack the Japanese Port Moresby Invasion force if it passed

through the Jomard Passage into the Coral Sea suffered three air attacks. First by 12 Japanese torpedo bombers, then by 19 high level bombers, and finally by three US Army B-26 bombers from Townsville, which had mistaken the identity of the ships. With very skilful manoeuvring and anti-aircraft fire no ship was hit, although the heavy cruiser USS CHICAGO lost two sailors and had seven wounded. Five Japanese aircraft were shot down.

The Battle of the Coral Sea marked something of the high-water mark of Australian-led arms during WWII. General MacArthur, having escaped the Philippines in March 1942, in May 1942 was appointed Commander-in-Chief of the South-West Pacific Area (SWPA) and a permanent member of Curtin's "Prime Minister's War Conference". A committee made up of Curtin, Shedden, and General MacArthur. It did not include General Blamey, Commander Allied Forces (and MacArthur's Deputy) and MacArthur excluded Australians from his planning and operations. Australian forces were further divided between the U.S.; the *de facto* martial rule of MacArthur (as CINCSWPA); and the RAN (and RN) under Admiral Nimitz, Chester W., Commander in Chief, Pacific Ocean Areas.



Vice Admiral Crace, Sir John (Jack) KBE, CB, RN

born in Gungahlin, New South Wales (now in ACT) he attended The Kings School, Parramatta. After training as a torpedo officer, he served in HMAS AUSTRALIA during WWI. Upon returning to Sydney from the UK in 1939, he was dismayed at the state of the RAN and sought to return to the European Theatre. After the Battle of the Coral Sea he was promoted Vice Admiral, and commanded the Chatham Royal Navy Dockyard until retiring in July 1946 (aged 59).



The damage to HMAS AUSTRALIA (II) bridge and foremast after air attack 21 October 1944 (image RAN).



B-25 Mitchell Bombers Arranged on the Flight Deck of USS HORNET (CV-8) In Preparation for the Doolittle Raid.

3) The Battle of Midway

If the Battles of the Coral Sea and Midway are viewed as a continuum, then the Battle of the Coral Sea was the first act of a much larger victory. [19]

Although for the first 5 months everything went largely to plan for the IJN, on April 18 1942, the US Army Air Force led by Lieutenant Colonel *Doolittle, James Harold* (1896-1993, later, Air Chief Marshal) launched an air raid on Tokyo and other Japanese cities (the Doolittle Raid). The raid made Admiral *Yamamoto* feel keenly the necessity to destroy the remaining U.S. aircraft carriers. [19]

Yamamoto had intended to lure U.S. aircraft carriers to battle by seizing Midway Island. On June 6, 1942, the IJN fought with the US Navy in the vicinity of Midway Island. Previously the USN had broken the IJN's signal cyphers and broadly understood the IJN's battle plan, if not the exact Fleet dispositions. As a result, at the Battle of Midway Island, the IJN lost 4 aircraft carriers, 1 heavy cruiser and 289 aircraft. Additionally, was the loss of Rear Admiral *Yamaguchi Tamon* (1892-1942) a formidable naval aviation squadron commander [21] and many experienced pilots (who could not be replaced). Moreover, IJN failed to capture Midway Island nor knock out all the U.S. aircraft carriers. On the other hand, the US Navy lost 1 aircraft carrier, 1 destroyer and 150 aircrafts. Midway was a turning point, that fundamentally and irrevocably changed the direction of the Pacific War.

(4) Kamikaze Special Attack Units

After the Battle of Midway, the IJN suffered a series of defeats to Allied Forces. With Allied seizure of command of the air, Japanese ships and transportation units lost their freedom of navigation and manoeuvre. Moreover, the disruption of the transportation between Japan's mainland and Southeast Asia – through unrestricted submarine warfare enacted by the Allied Forces – caused serious shortages of fuel for ships and aircraft. In aerial warfare, the training of young pilots could not make up the loss of skilled pilots. Consequently, naval aviation lost its high degrees of skill, and reconstruction of the Naval Aviation Fleet became increasingly impossible. Finally, IJN adopted the suicide attack by aircraft called 'Tokko' (= Special Attack) – carried out on October 25, 1944 for the first time. Comprising 'Kamikaze Special Attack Units' [21], four thousand four hundred pilots died serving in Tokko units – but nothing could now change the tide of war.

By this stage, against opposition from both *MacArthur* and Admiral *King, Ernest* USN Chief of Naval Operations, the British Pacific Fleet (BPF) had fought its way back into the Pacific and into the vanguard of the US Fleet. Although under the USN; largely constructed by

the Royal Navy and provisioned in Australia, its crews were drawn from New Zealand, Canada and Australia – specifically its Fleet Air Arm. As Task Force 57, the BPF fought with distinction, including at Okinawa – where the steel decks of its carriers proved their worth against kamikaze attacks.

(5) The Battle of Bo-no-Misaki-Oki

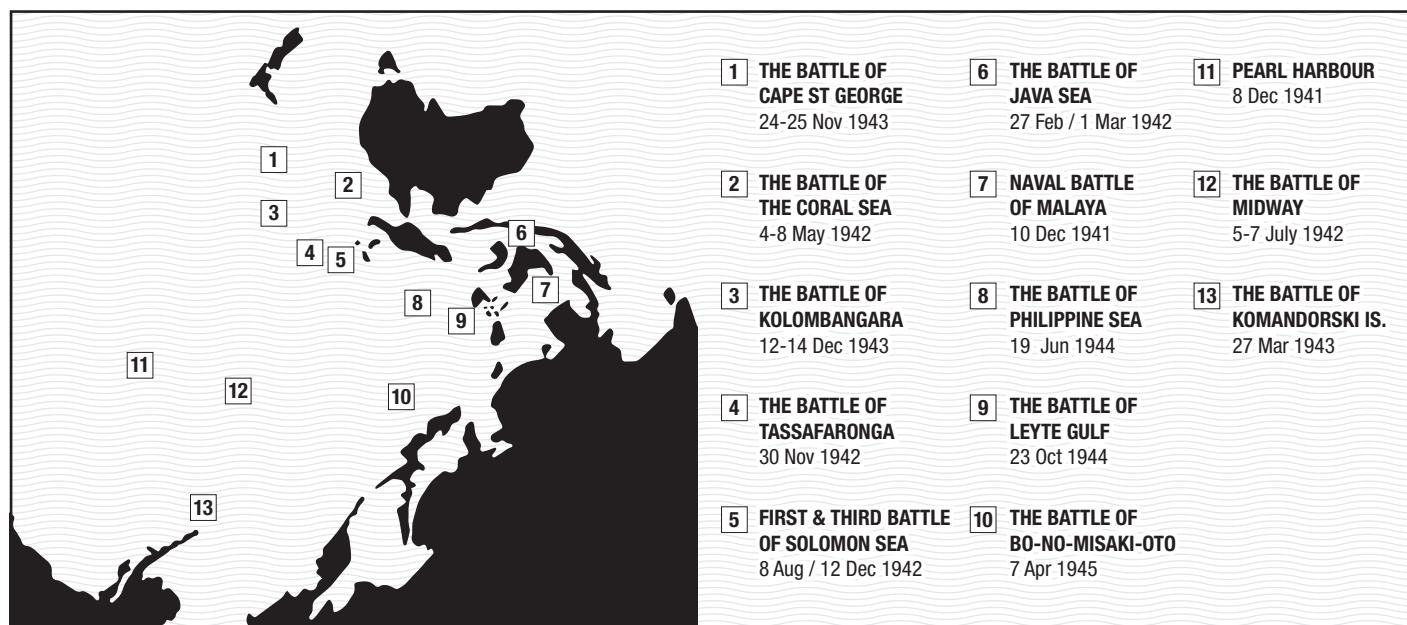
The battleship YAMATO, the biggest battleship in the world, lost its place as, after Midway, the leading role in naval battles shifted from battleship to aircraft and aircraft carriers (her sister ship MUSASHI was sunk on August 5, 1942). On April 6, 1945, having been in continuous action against Allied Forces since March, the IJN's 2nd Fleet (YAMATO, 1 light cruiser and 8 destroyers) made a sally (named 'the surface Tokko of *Yamato*') to relieve Okinawa Prefecture. Like the PRINCE OF WALES and the RENOWN, the force did not have sufficient air cover. The next day, three hundred and eighty-six US naval aircraft from Task Force 58, led by Vice Admiral *Mitscher, 'Pete' Marc Andrew* (1887-1947, later, promoted Admiral) attacked the Japanese 2nd Fleet. YAMATO and 5 ships were sunk within two hours and only 4 destroyers returned to base after the battle of Bo-no-Misaki-Oki. Vice Admiral Ito Seiichi (1890-1945, posthumously promoted Admiral), the Commander of 2nd Fleet shared the same fate as YAMATO and Admiral *Phillips*. The sinking of the YAMATO represented the *de facto* end of the IJN.

On August 15, the Japanese government accepted the Potsdam Declaration, demanding the unconditional surrender of Japan. The Pacific war was over – Japan had been defeated.

THE FALL OF IJN AND REBIRTH TO JMSDF

Having lost its ability to continue the war, the IJN had some undamaged ships and aircraft when the war ended. Disarmament was started immediately. With some exceptions, it was carried out calmly and efficiently and the Ministry of Navy was reorganized to the 2nd Ministry of Demobilization in December 1945. As an exception, the minesweeper squadron was maintained. In 1950, they engaged in minesweeping operation for the US Navy, fighting with UN Forces during the Korean War (1950-53). During these operations, one sailor was killed, and eighteen wounded by mines.

In 1952, the Coastal Safety Force was established following a change in U.S. policy allowing Japan to rearm. In 1954, the Navy was reorganised as the Maritime Self Defense Force (JMSDF) and many former naval officers and sailors (following the purge of public officials) joined JMSDF. [23]



The main naval battles in the Pacific War.

JMSDF AND RAN – SAILORS-IN-ARMS

In an attempt to circumvent the post-war mechanism, Japan has adjusted its military and security policies and increased input accordingly, thus becoming more outward-looking in its military endeavours. Australia continues to strengthen its military alliance with the U.S. and its military engagement in the Asia-Pacific, seeking a bigger role in security affairs. [24]

The quote from the recent Chinese Defence White Paper (July 2019) identifies Japan, Australia, and the U.S., as potential obstacles to the “reunification of Taiwan...sovereignty over [man made] islands and reefs in the South China Sea; ...and the Diaoyu Islands (Senkaku Islands) in the East China Sea”. Paraphrasing Benjamin Franklin, “Japan, the U.S., Australia [Singapore, and India] must, indeed, all hang together or, most assuredly, we shall all hang separately”.

We end by recalling the recent U.S. and Australian bilateral Talisman Sabre exercise (June/July 2019), joined by Japan at the request of the USA. During the exercise, RAN Landing Helicopter Dock ships (LHDs) operated with USN Carriers and JMSDF Helicopter Destroyers (DDHs) in the Coral Sea. Just as we feel Australia can look to its north, we also feel that Japan can look to its south – secure in the knowledge that the bond that binds our sailors-at-arms is as strong as ever. This will give our two nations, with the U.S. and other Allies, a stable foundation upon which to build in uncertain times.

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- In the 1920s and 1930s the U.S. Army and Navy developed its highly secret War Plan Red that considered a war with the United Kingdom (the “Red” forces) and fighting a war with the British Empire. It further planned for fighting a two-front war (in the Atlantic and Pacific), against both Japan and Britain under War Plan Red-Orange. In the event, War Plan Red-Orange proved percipient, except against Nazi Germany (not the UK) in Europe.
- During the Treaty of Versailles negotiations in 1919, Hughes, Billy campaigned against the Japanese motion to “include anti-racial discrimination” in the Charter of the League of Nations. Articles that would underpin the Atlantic Charter and the founding of the United Nations, twenty-years later. Japan was embarrassed and wounded by the racist undertones of the campaign against its motion. A Japanese delegate even referred to Hughes as a “peasant, ignorant and backward with no real concept of the world”. The treatment of Japan (as not being equal to Europeans and Americans) further strengthened the hands of those Japanese factions demanding retributive military expansion.
- After WWII, the UK and its Empire was largely bankrupt, with much of its gold transferred to the U.S. and U.S. armament manufacturers necessary to sustain the war against Germany. Underneath the Washington and London Conferences was also an attempt by the British Empire to maintain presence, prestige and power ‘on the cheap’ – contributing also to the period of appeasement; leading ultimately to the failure of deterrence in the 1930s. This policy was ‘seen through’ by policymakers and political leaders in the U.S., Japan (and latterly Germany), who all began planning for a world after the British Empire; when they might be fighting each other.
- In the modern Japanese military, ‘Marshal’ was not a rank but a title which was given to Generals and Admirals who had rendered distinguished service in war.
- ‘Miyake’ is a branch family of the imperial household. Fushiminomiya was one of the oldest Miyake and Prince Hiroyasu its 25th head.
- In the Constitution of the Empire of Japan, Tenno (Emperor) has the supreme command of the Army and Navy. So, the General Staff Office (Army) and the Naval General Staff office didn’t belong to the Cabinet but to Tenno.
- Prime Minister Hamaguchi Osachi (1870-1931), having promoted the London Naval Treaty was sniped at and undermined by member of the right-wing groups in 1930 and died 9 months later.
- By this stage Japan was politically increasingly hostile to the U.S. (more so potentially than towards the British), and following the 1932 ‘Shanghai incident’ was preparing to embark on the Second Sino-Japanese War, which broke out the following year on July 7, 1937. And ended on September 2, 1945 at the end of WWII.
- By this stage Italy was under the Fascist Dictator, Mussolini “Il Duce” (1925-1943) and fighting its second war against Ethiopia (1935-1939) opposed by the U.K. and the League of Nations established exactly so as to prevent such wars amongst its members. Italy was ultimately defeated in 1941 by the British ‘Empire’ Armies.
- This was considered to be part of a number of false flag events (leading to The Mukden or Manchurian Incident, 18 September 1931) staged by Japanese Military personnel as a pretext for the Japanese invasion of north-eastern China, known as Manchuria. The deception was exposed by the 1932 Lytton Report; leading to Japanese diplomatic isolation and its Subsequent (March 1933) withdrawal from the League of Nations.
- The Chinese and Korean’s know this as the July 7th Lugou Bridge Incident.
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- To solve the problems of flight range, Doolittle aviation took off from USS Hornet (CV-8, 19,800t).
- He participated in the Battle of Midway as a commander of the Second Aviation Squadron. After the destruction of Japanese Fleet, he lasted counterattack and wrecked USS Yorktown. After his death in this battle, he promoted to Vice Admiral.
- ‘Kamikaze’ means ‘God Wind’. They were compared to the ‘God Wind’ which had destroyed Mongol Empire Forces, invaded to Japan in the late 13th. Century. (Please refer to Hiroyuki Kanazawa, The Creation and Establishment of The Japanese Navy 1855-1923, *The Navy*, vol.80. no.1, 2018.1.)
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CHINA'S BELT & ROAD INITIATIVE PARALLELS IMPERIAL JAPAN'S NORTHERN/SOUTHERN EXPANSION DOCTRINES

By Jon Duggan

While President Xi Jinping's planned global initiative to create the 21st century's version of an expanded Silk Road that would allow easy movement of people and trade around the world sounds commendable, there may be some parallels that should concern many. Imperial Japan also had some similar plans known as the Northern Expansion Doctrine and the Southern Expansion Doctrine during the first half of the 20th century.

INTRODUCTION

Imperial Japan decided during the 19th century to end its centuries' old policy of seclusion and embarked on a series of reforms to modernise. This included sending delegations around the world in an attempt to understand what was needed to be implemented to create an industrial nation. This led to significant reform which transformed a feudal society into a modern country.

Modern Japan now noted with concern that Korea, with assistance from neighbouring China had also been undergoing reforms that included developing significant military capabilities, and saw this as a potential threat. One of Imperial Japan's principle military advisers, Prussian Major Jacob Meckel stated that:

Korea was "a dagger pointed at the heart of Japan"

Following industrial unrest in Korea, which saw Chinese forces being dispatched to Seoul, Japan too sent members of the Imperial Japanese Army (IJA) to protect its consulate. There was an inevitable clash between the two foreign forces and this led to the 1st Sino-Japanese War.

EUROPEAN WARS

Imperial Russia also had eyes on Korea and Manchuria, and in the early 20th century saw a clash which led to the Russo-Japanese War and the Battle of Tsushima which saw the Imperial Japanese Navy (IJN) destroy the Russian Fleet.

During World War I, Japan declared war against the Central Powers, thus becoming part of the Entente Powers. The IJN played an important part in securing the Sea Lines of Communication (SLOCs) in the Western Pacific Ocean by seizing German possessions/colonies, including Tsingtao, the Mariana, Caroline and Marshall islands groups. The League of Nations (forerunner of the UN) ratified Japan's claim on these territories in the *South Pacific Mandate* (1919).

In 1918, following the Russian Revolution which saw the commencement of the Russian Civil War, Imperial Japanese Army (IJA) forces joined those of the U.S. to assist the White Russians in their battles with the Red Army. Concurrently, in the early part of the 20th century, China and Japan were involved in a series of skirmishes in Korea which spilled over to the Nanking Incident of 1927. Anti-Christian riots that had commenced in China centuries before, led to British and U.S. naval vessels, aided by French,



The Imperial Japanese Navy's Second Special Squadron Destroyer and four apparently surrendered German Submarines Operating from Grand Harbour Malta, in WWI. (Image IWM)

Japanese & Italian gunboats involved in relieving the foreign enclaves in Nanking. The Chinese nationalists Generalissimo Chiang Kai-shek was forced to utilise his Kuomintang army to suppress further insurrection. The resulting Kellogg-Briand Pact, drawn up in Paris, suppressed the use of war to solve disputes – thus limiting Japan's ability to capitalise on the situation.

MANCHURIAN INCIDENT

In 1931 the Japanese staged an event which is now known as the Manchurian Incident which enabled them to replace Manchuria with the state of Manchukuo. This occurred when an IJA officer of the Independent Garrison Unit detonated an explosion on the tracks of Japan's South Manchurian Railway that caused basically no damage. However, Chinese rebels were accused of being responsible and as the Kuomintang seemed reluctant to intervene, the IJA's Kwantung Army moved in and the new state was declared. Following worldwide criticism for their action, Japan withdrew from the League of Nations in 1932 and no longer recognised the Washington Treaty – that had significantly limited the Imperial Japanese Navy (IJN) to 235,000 tons in total. This compared with both the Royal Navy (including other Commonwealth navies) and the US Navy fleets having a maximum of 660,000 tons each, and the French and Italian navies equivalent to that of the IJN.

The 2nd Sino-Japanese War commenced with the Marco Polo Bridge Incident that took place when IJA forces crossed the border to conduct military exercises. During these exercises the



MV Dalfram at the Centre of the Pig Iron Bob Dispute 1938.

IJA attempted to enter the walled town of Wangping, to search for a missing soldier. This resulted in an exchange of fire between the invaders and the defenders. Even though the “missing” man rejoined the IJN, the situation had worsened with both sides rushing in reinforcements. The Chinese forces holding the now infamous bridge suffered significant casualties. The situation was resolved diplomatically with China having to apologise to the Japanese. Although a ceasefire had been declared, the situation deteriorated when Chinese Communist forces joined in an attempt to make political capital from the stalemate (brokered by the nationalists). The end result was Japan signing the Tripartite Pact with Germany and Italy in 1940 and joining World War II.

Dalfram Aside

At this point it is interesting to note that during the Dalfram Dispute of 1938, the then Attorney General – Robert Menzies, would threaten the Waterside Workers’ Federation of Australia with imprisonment for refusing to load MV *Dalfram* with iron ore during an industrial dispute on the waterfront, earning him the infamous nickname “Pig Iron Bob”.

Later, as Leader of the United Australia Party and Prime Minister, Robert Menzies was accused of initiating the infamous Brisbane Line of defence across northern Australia. At this point, any invading members of the Imperial Japanese forces would initiate the authorisation of the return of Australian forces from the Middle East & North Africa to repel the invader. After resigning in the latter part of 1941, Mr Menzies then went on to form the Liberal Party in the latter part of 1945, and in 1949 began the term that saw him as the country’s longest serving Prime Minister.

NORTHERN/SOUTHERN EXPANSION DOCTRINE

Much of the above complied with the IJA’s *Hokushin-ron* (Northern Expansion Doctrine) which started to be formatted during the 1st Sino-Japanese War that was to see expansion via eastern China, Korea and eastern Russia. However, this was at odds with the much older IJN *Nanshin-ron* (Southern Expansion Doctrine), that saw the way forward through the Pacific Islands and South East Asia. It is here that a comparison with President Xi’s initiative can be seen.

SILK ROAD

The Silk Road was a series of land/sea routes that allowed trade to flow to/from China. The “Road” component covered Asia/Asia Minor and parts of Africa, while the “Sea” component covered the South China Sea/India Ocean/Arabian Gulf/Mediterranean Sea. It existed from about 200BC to the beginning of the 18th Century.

The Sea component gave rise to the 15th Century Chinese Admiral Zheng He, who led expeditions of “treasure fleets” to countries

bordering the Indian Ocean and the Persian Gulf. These huge fleets comprised warships, transports and passenger vessels – including merchant vessels for trade. Admiral Zheng’s Islamic background held him in good stead when dealing with many of the officials in the ports he visited during the seven voyages.

The Silk Road can be seen as a key to Imperial China’s success over some two thousand years.

BELT & ROAD

Sometimes referred to as the “One Belt One Road” (OBOR), this strategy was announced by President Xi of the Peoples Republic of China (PRC) in 2013, during visits to Indonesia and Kazakhstan.

The “Belt” component relates to the land, while the “Road” refers to the sea – thus it is a modern day Silk Road comprising an Economic Belt and 21st century Maritime Silk Road.

President Xi explains the Belt & Road:

“as the connectivity of markets for domestic and international trade”.

Many countries have been asked to participate, and those without finance or expertise have been offered “incentives” to join including:

a) Australasia

- At this stage the Federal Government claims to have not joined the initiative despite Darwin Port having received \$506 million from Landbridge. A Chinese company for a 99-year lease. Nor is China’s continuing huge investments in Australia seen by the government as de facto membership;
- Editorial Note: There is evidence to suggest that New Zealand as a Five Eyes Partner may be coming under increasing pressure to review its involvement in China’s One Belt One Road initiative and, indirectly, with the CCP.

b) Africa

- Djibouti has accepted finance for the development of Doraleh Port and Hassan Gouled Aptidon International Airport;
- Ethiopia has allowed China to build the Addis Abba Eastern Industrial Zone and the Addis Abba-Djibouti Railway;
- Kenya has an agreement for China to build the Mombasa-Nairobi Railway;
- Nigeria allowed China to build the Abuja-Kaduna Railway as the first stage of the Lagos-Kano Railway, along with a plan to complete a TV network to provide coverage to over 10,000 villages; and,
- Sudan is allowing China to build oil facilities, along with agriculture, railways, roads, ports and power generating systems;

c) Asia

- Indonesia is allowing China to build the Jakarta-Bandung High Speed Rail;
- Laos is allowing China to build and operate the Vientiane-Boten Railway as part of the Laos-China Railway;
- Malaysia allowed China to build the East Coast Rail Link, the construction of Forest City near Johor as well as several pipelines;
- Pakistan has entered into the China-Pakistan Economic Corridor that includes the development and operation of major energy and transport infrastructure including the strategic port at Gwadar;
- Sri Lanka allowed China to build the Colombo International Financial City, as well as build and operate the strategic

Magampura Mahinda Rajapaksa Port for a period of 99 years; and,

- Thailand is allowing China to build the Thai-Chinese Rayong Industrial Zone as well as the Bangkok-Nakhon Ratchasima high speed rail. The railway will be extended to Nong Khai and then onto Laos where it will form part of the Kunming-Singapore Railway.

d) Europe

- Belarus has allowed China to construct the China-Belarus Industrial Park near Minsk;
- Britain is allowing China to build the China-Britain freight route and (by Ed.) has sold elements of its strategic nuclear power industry, and;
- the building of a railway network linking China to European ports including Hamburg;

e) South America

- Argentina is allowing China to build and operate two hydroelectric power stations on the Santa Cruz River.

Many of the OBOR projects are financed via loans to these countries, often with very onerous default clauses. For example, the Magampura Mahinda Rajapaksa Port which was initially to be operated by a Sri Lanka company but reverted to China when payments could not be made and the lease was taken out for almost USD\$1.5 billion which is to be used to repay the debt.

OBSERVATIONS

Both China and Japan have been seen to want to increase their spheres of influence to gain access to trade, be this agriculture, energy, farm product, gas, minerals, technology, etc., and both have adopted different approaches for achieving their objectives.

In the case of Japan, this was done via the more traditional approach – using the Imperial Japanese forces (IJA and IJN) in an attempt to accomplish their goals. Much planning went into their efforts, both in the late 19th Century, when the IJN acquired modern vessels from Britain – which enabled them to defeat the Imperial Russian fleet between 1904 and 1905. And later, building their own ships in Japan, following the abandonment of the Washington Treaty in 1934.

In the lead-up to joining World War II, both the IJA and IJN significantly built up their air-forces with modern bombers, fighters and intelligence gathering aircraft. However, as we know they lost – it was not enough.

In the case of China, a more subtle approach has been initiated with President Xi's Belt & Road Initiative that seems to have a similar objective to that of Imperial Japan. In the 21st century there are financial "carrots" to influence governments to sign up, rather than the less subtle method of reaching for the "stick" up front.

Like Imperial Japan, China has been significantly building up the People's Liberation Army (PLA), PLA-Airforce & PLA-Navy. With over 9,000 Main Battle Tanks (MBT), 3,750 military aircraft and over 400 ships (including its maritime militia of the Coast Guard and 'Fishing Fleets'), the PLA is a formidable force that President Xi can call upon to "police" his policies and ensure that there are no major disruptions to the Belt & Road Initiative.

Examples of the "carrot" approach can be seen with China financing poorer nations into important infrastructure deals. Examples of the "stick" approach can be seen by calling in "loans" that these countries have no visible means of repaying. It can also be seen with the "String of Pearls Strategy", which sees China wishing to own the China Sea as its "Mare Nostrum" to the point of constructing



Image of Offshore Patrol Vessels of the Arafura-class (Image RAN).

artificial islands on reefs in the South China Sea to accommodate strategic military bases – even though President Xi had promised not to militarise these "islands".

It is interesting to note that disputes over ownership of areas in the China Sea exist between Brunei, China, Indonesia, Japan, Malaysia, Philippines, South Korea, Taiwan, Thailand and Vietnam, with several being recipients of President Xi's Belt & Road Initiative.

CONCLUSION

There would appear to be many parallels between Imperial Japan's Northern/Southern Expansion doctrines and China's Belt & Road Initiatives. And just like the situation which saw Prime Minister Menzies referred to as "Pig Iron Bob", the Australian Government needs to take responsibility for ALL foreign investment in Australia, even at the expense of the various State and Local governments. This responsibility should not be xenophobic or racial in any way. It should be based upon a simple premise where the rules that apply to foreign investment in any specific country should be reciprocated when that country wishes to invest in Australia. It may also be a case of "...the Horse has bolted" or "putting the Genie back...".

At the same time, the Australian Government should ensure that the Defence Forces (Army/Navy/Airforce) are sufficiently armed with adequate tools to enforce this control. In the case of the Royal Australian Navy, this would mean bringing forward the start date for the 12 *Attack-class* submarines, nine *Hunter-class* frigate & 12 *Arafura-class* offshore patrol vessels. At the same time retaining some of the ANZAC-class frigates for the Naval Reserve for training purposes or for a state of emergency. ■

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For God and Glory

Lord Nelson and His Way of War

Joel Hayward

Naval Institute Press (15 Feb, 2019)

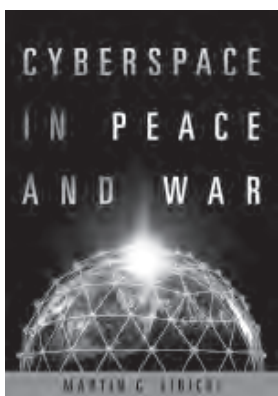
ISBN-13: 9781612517797

Softcover: \$37.50

Joel Hayward is a professor of strategic studies at Massey University, and lives in Palmerston North, New Zealand. He writes in detail and brings a useful focus into a hitherto unexplored aspect of Nelson's multifaceted, complex character. Over years of warfare, he developed a loathing of the "damned perfidious rascals", the French (inherited apparently from his Mother) and Napoleon in particular, who he demonised. Yet even examined by the PC virtue-signaling politics of today, Nelson stands out both for his ethical reasoning – his application of the Articles of War (his rules of engagement) including at Copenhagen – and his deeply moral understanding of his beloved sailors, and the enemy.

He sought to achieve a common understanding and cause against France. Although often disappointed, his moral underpinning, enabled

him to achieve remarkable strategic diplomatic breakthroughs – including with the Sultan of Turkey. In battle, he showed incredible courage and magnanimity towards the enemy. He was ultimately a moral leader followed by his sailors because they believed in him, and the higher values he espoused. This is an important book. Hayward has done us a service. An essential summer read. Despite frightful physical injuries, Nelson's belief in humanity, Navy, and country stands out – placing him amongst those 'exceptional humans...who took risks, learned from mistakes...and proved all their foes unequal'. ■



Cyberspace in Peace and War

Martin C. Libicki

Naval Institute Press (15 Oct, 2016)

ISBN-13: 9781682470329

Hardback: \$80.00

Martin C. Libicki is the Maryellen and Richard L. Keyser Distinguished Visiting Professor in Cyber Security Studies at the U.S. Naval Academy and adjunct senior management scientist at the RAND Corporation. Martin writes eloquently, albeit from a U.S. perspective that tends to apply a logic-positivism to control Cyber. An orthodoxy that may largely work within the infotechnological domains – but may not within the more human, or where logic negativism provides alternative insight. For example, the need to develop not simply a jurisdiction in Cyberspace, but also a jurisprudential network that can interpret and make sense of the emerging codes of war within Cyber. This comes to a head in Libicki's understanding of deterrence or Mutually Assured Disruption (as he calls it) within Cyberspace. He largely dismisses deterrence, exactly because of the inability to attribute.

But deterrence is more than attribution, and also relies on effective and timely responses through escalatory measures (up and down).

Written in 2016, this book predates Trump, Brexit, Macron, and the critical and rapid rise of China to regional, political security economic hegemony. It therefore addresses a future more now scape than space – and where the tactical dominance of China (and Russia) in the 'space' is creating systemic blindness in the Global West. Moreover, China is experimenting in the Cyber – through its smart cities – and building afresh, where the Global West is standing still. When was the last new City the West built?

This is an important definitional book that lays the ground work. It is perhaps not abstract enough, and does not really address the rise of quantum, AI, and nanotechnology that are tomorrow's infotechnologies, with us today. Nonetheless a seminal contribution and vital read – from a U.S. perspective. ■



The Man Who Took the Rap

Sir Robert Brooke-Popham and the Fall of Singapore

Peter Dye OBE

Naval Institute Press (15 Oct, 2018)

ISBN-13: 9781682473580

Hardback: \$67.50

Peter Dye is a graduate of Imperial College London and Birmingham University. He served in the Royal Air Force for over 35 years. He retired as an air vice-marshal and was appointed director general of the Royal Air Force Museum in 2008. Dye writes with affection about Sir Robert Brooke-Popham, albeit defensively. As an officer who served with distinction, including during the first Gulf War, Dye brings a fresh insight into Brooke-Popham. The book attempts to reset the story following catastrophic defeat at Singapore but struggles against a backdrop that, even 77 years later, remains hostile.

In actuality, following near breakdown and dismissal by the newly appointed Cabinet envoy Duff Cooper, Brooke-Popham was dismissed on 27 December – at the height of the Battle of Malaya. Sir Shenton Thomas, the last Governor of the Straits Settlements (who stayed behind and was captured by the Japanese), described Duff-Cooper (who escaped, as did the Australian, General Gordon Bennett) as "a rotten judge of men, arrogant, obstinate, vain – how he could have crept into Office is beyond me".

A number of recent papers in *The NAVY*, including in this issue, consider the fall of Singapore. Dye does not criticise Australian Army performance in the Battle of Malaya (where they performed well) or at Singapore. The author is aware and addresses Australian criticism of Brooke-Popham, particular his 'dithering' failure in decision-making and taking at Krohcol, that transferred strategic advantage to Japanese forces. From which Allied forces never recovered.

RAF personnel captured following the fall of Singapore apparently remained loyal to Brooke-Popham, and he never denied but rather accepted responsibility for Singapore. Is this enough? Probably not. And while Dye makes an important and balanced contribution, a concern remains that the British did not learn. Similar mistakes, including at lesser scales and under equally unimpressive British Generals, were made in Iraq and Afghanistan, for example Musa Qala in 2006. An important read. ■



THE NAVY LEAGUE OF AUSTRALIA ANNUAL MARITIME AFFAIRS ESSAY COMPETITION



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- Australian Naval History
- Australian Industrial and Merchant Navy Maritime Strategy

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Essays should be 2,500-3,000 words in length and will be judged on accuracy, content and structure.

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Essays should be submitted in Microsoft Word format on disk by;

Post to:

Navy League Essay Competition
Box 1719 GPO, SYDNEY NSW 2001
OR

Emailed to: editorthenavy@hotmail.com

Submissions should include the writer's name, address, telephone and email contacts, and the nominated entry category.

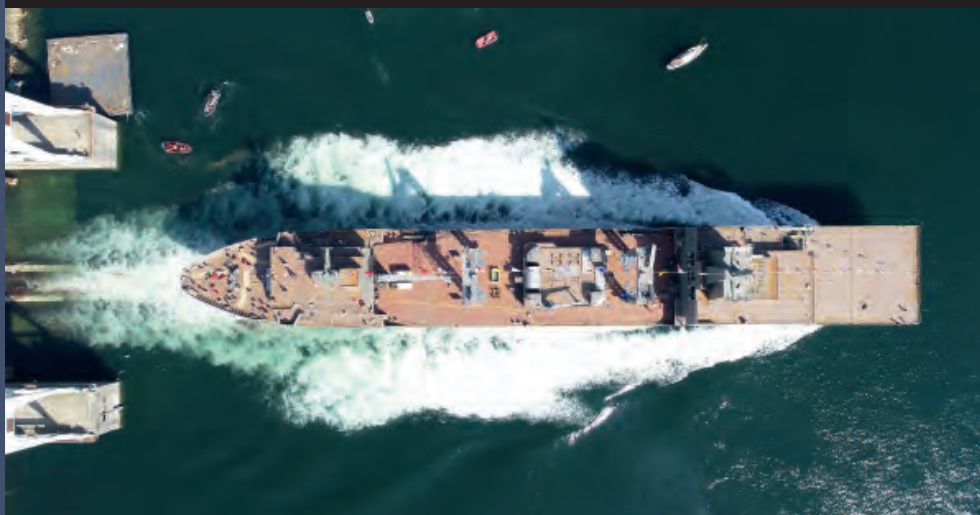
DEADLINE

Saturday 22 August 2020

Prize-winners announced in the January-March 2021 Issue of *The NAVY*.



HATCH: France Launches NUSUB FN SUFFREN (Q284) a Barracuda-class submarine and base for the Attack-class design.



MATCH: Launch of NUSHIP STALWART (AOR 925) by Spanish shipbuilder, Navantia.



DESPATCH: HMAS SUCCESS (A0304) Decommissioned in June after 33 years Loyal Service to Country (Image LSIS Steven Thomson).