

THE NAVY

THE MAGAZINE OF THE NAVY LEAGUE OF AUSTRALIA



**THE GLOBAL WEST
IS ALL AT SEA**

**THE IMPERATIVE OF
CRITICAL SYSTEMS
DESIGN THINKING**

**HOW THE USN, RAN &
JMSDF ARE POSTURING
TO COUNTER THE PLA**

**FORMATION OF NAVY PART I ~
THE ISRAELI DEFENCE FORCE
NAVY, 1939-1959**

\$5.95 INC.GST

ISSN 1322-6231



AUSTRALIA'S LEADING NAVAL MAGAZINE SINCE 1938



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Volume 78 No.4

THE NAVY

THE MAGAZINE OF THE NAVY LEAGUE OF AUSTRALIA

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Deadline for next edition 5 November 2016

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Front cover: Osprey lands in Canberra, during RIMPAC, Photo by LSIS Helen Frank.



MAY YOU LIVE IN INTERESTING TIMES*

This issue represents something of a change, with two papers dealing specifically with geostrategic issues, Papers 1 and 3; Paper 4 considers the birth of the Israeli Defence Force Navy and Paper 2 examines maritime systems integration and design. Two of the papers are by recently retired Admirals, one US; the other Israeli; one by an academic and one based on a recent address by Chief of Navy. Taken overall, the papers continue the themes of the *NAVY* Magazine regarding the maintenance of the Maritime wellbeing of the nation, page 32. Paper 1 examines the Global West from a maritime and British perspective of Australia and the RAN. Paper 3 looks at how the Japanese Self Defence Force Navy; the RAN and the USN are posturing in response to China in the South China Seas, from a US perspective.

It is unclear exactly how the UK Brexit vote will translate in the future. There would appear to be three alternatives – a complete separation and divorce of UK with Europe. This would be akin to towing the UK off to Rhode Island, and it ain't going to happen. The second, as in any separation, is some form of parting of the ways, with the parents (UK and Germany) continuing to look after the children (Scotland and Greece). The third is some form of renegotiation of the vows, with the potential of getting back together in a new arrangement conducive to good parenting (potentially arising from an amicable trial separation). From an Australian perspective, if the UK is to stay together then some form of Federation of the 'kingdoms' appears inevitable. What has this got to do with the maritime? As articulated in another place, the Royal Navy was key to the Act of Union: 'what it was to be British was represented by the Royal Navy and Britain became its Royal Navy'. Julian Lindley-French, author of Paper 1, recognised this when speaking at Oxford University (his alma mata) and noting 'for a Navy without a strategy, there is [ultimately] no Navy'. The same could be said of the Royal Navy. It is clear that for the past 15 years (at least), a coherent RN political-sûreté-economic maritime leadership or strategy has been largely missing. As a result, Britain's once renowned Navy has withered. The low point, probably, being the 2007 surrender of HMS CORNWALL's (F99) RHIBs to the Iranian Republican Guard (IRG). The full investigation by Lieutenant General Sir Rob Fulton Royal Marines (retired) has never been released – exactly because it identified the systemic failure of ethos and command in the RN at the time. This raises an existential question: 'without a Royal and Merchant Navy, what exactly is the point of Great Britain?'



The Bank of England

The result of Brexit came as a shock to the British closed elites, mainly living in South East England and capital cities, such as Edinburgh. In Bertrand Russell's terms, it was a failure in leadership: the leaders gave up leading and the followers (from lower classes) no longer appeared prepared to follow. How else can one explain that no planning had been done for the eventuality of a Brexit vote? The Governor of the Bank of England – like the other leaders who supported remain – finally got round to doing something at the 11th hour. The Governor might recall, that it was the Bank of England, with Admiralty and the City of London, that in 1694 created what would become a global Royal Navy and kick-started the Industrial Revolution. As of now, the UK is frantically recruiting negotiators from Canada, Australia and New Zealand, to



HMS PRINCE OF WALES (R09) Forward Island Bridge Module

beef up its Foreign and Commonwealth Office and other Departments needed before negotiations can commence. It is also now apparent that the Ministry of Defence – if it still functions as a Ministry – had done no strategic planning whatsoever; its assumptions based on yet more for less (in NATO and the EU).

The problem with multinational organisations – such as NATO and the EU – is that they make you respectable and legitimate; not effective or efficient. When Britain pooled its sovereignty in these organisations, it also stopped thinking – since 'these bodies would do it for them'. Only they didn't – hence the lack of empirical strategic thinking and the fact that there was no strategy or planning. The Royal Navy was the canary in the coalmine. No strategy = no Navy and, ultimately perhaps, no UK! Lindley-French takes a more optimistic view of Britain and its Royal Navy. He believes that:

'sea blindness in Britain is at an end...by 2023 the Royal Navy will again be one of the strongest power projection navies in the world...for political reasons if nothing else the Type 26 frigates will eventually be built'.

Hope is neither a strategy nor a plan – notwithstanding, Lindley-French may be correct in observing that:

'if Australia can overcome its *sniffy* attitude towards the Royal Navy and focus on the positives rather than routinely seek the negatives, then there are a lot of lessons for both partner navies to learn from each other:... Australia needs Britain to be strong'.

Put another way, the Liberal nations 'must all hang



Type 26 Design with CEAFAR Radar

together', as Benjamin Franklin observed, 'or assuredly [they] shall all hang separately'. The same populist politics; dissatisfaction of the followership and failure of (elite) leadership to lead, appears to be affecting all the Common Law and Commonwealth nations, including the US and India. The sense of revolt if not revolution is in the air. Other voices, including those of Niall Ferguson, are suggesting that a Trump Presidency cannot be ruled out. Yet, is London, Canberra and even Washington planning for this – or are they simply waiting for us all to hang separately? We're OK Mate.

If Lindley-French is right, then Australia needs Britain if both are to be strong. How could that be achieved and how can both countries help each other? An off the wall suggestion by a group of NLA members (subsequently followed up by Government and BAES) is to work with the UK to finalise designs and commence building the Type 26 Frigate here in Australia. Sounds interesting? Think of the competitive

advantages to both countries. The Type 26 is probably the best design to emerge from the UK since the Leander Class Frigate. Fitted with CEAFAR radar and modularised missile, command, accommodation and propulsion systems, it could fit our future requirements. With the build commencing in Australia, subsequent ships could be exported to the UK until its own orders were placed and its yards re-shaped (with final builds exported back). The UK order was originally for 13. It needs 20 at least (to make up for the shortfall and inadequacies of the T45). The Australian specification is for 9 Future Frigates – similarly, RAN needs 12, to make up for the AWD shortfall and support the Amphibious Task Group. An order book for thirty-two Type 26s becomes very attractive for exporting (beyond UK and Australia) and sustaining a realistic shipbuilding infrastructure / industry in both countries. It makes more sense – in many regards – than going it alone with France for the Future Submarine. Moreover, two of the Defence primes

are already well established – at scale – in both countries.

The question of such an innovative proposition is 'whether or not Australian industrial maritime leadership is up for it?' Does it have the empirical knowledge and background to understand strategy and Navy? From their constituencies, the current and previous PM's look out over Sydney Harbour and Navy (in Garden Island). Can they provide the innovative leadership necessary to establish a maritime industry and provide jobs and growth? For Karl Popper's counterfactual applies: 'no thinking & no strategy = unemployment & decline'. The same applies in the UK. We do indeed live in interesting times.

* Known as the 'Chinese Curse', the saying is probably English and incorrectly attributed to the Chinese.

LETTERS

Australian Coastal Shipping

Submitted to the Letters Editor *Sydney Morning Herald*, 25 June, 2016 – not published (which coincidentally or ironically was also Annual Seafarers Day!)

Dear Sir or Madam,

Ninety nine percent of all Australia's import and export trade is now carried in foreign ships. There was a time when Australian ships carried a small percentage of our export cargoes, however, in the space of 30 years the Australian flagged Merchant Navy fleet has shrunk from 95 vessels to 38 in 1995 and now to 12 in 2016.

Some of these twelve ships are Australian flag in name only, as many of those operating on the coast are crewed by sailors, officers and even masters from China, the Philippines, India and Ukraine – all on 457 visas.

The decline in the Australian merchant fleet has been the result of intervention of the Coalition Government led by the Nationals Party, which for the last 50 years, whenever the Coalition has been in government has held the Transport portfolio. The Party has always been antipathetic

to any support for the shipping industry and has gone out of its way to encourage foreign shipping to enter the coastal shipping trade. It is a doubly ironic that the Nationals should have this attitude since all Australian farm commodities are exported in foreign vessels, not Australian-flag ships, and secondly, the farming industry which the Party represents, is the recipient of more assistance by way of subsidies and relief than any other Australian industry. The Australian maritime industry is now limited to a few freight and passenger ferries across Bass Strait and a few bulk bauxite carriers employed between Weipa and Gladstone. Other than harbour ferries and tugs, any ships you are likely to see in the port of Sydney - the cruise ships, container ships and tankers - are all foreign crewed. Incredibly even the Australian flagged refuelling barges (limited in range to the ports of Sydney and Botany Bay) are manned by foreign nationals. Crews on 457 visas are generally less well trained and are usually exploited in terms of wages and conditions.



Under the Red Duster - Australia's Merchant Marine shares the same duster.

Meanwhile, a host of highly qualified Australian seafaring officers and crew are 'on the beach' unable to find jobs. Around 80 officers attending the Australian Maritime College in Launceston are questioning their future after they complete their studies. On Friday, 19th, a number of currently serving and former captains and officers in the Australian maritime industry held a gathering to highlight and express concern regarding the dire state of the industry and the escalation of the use maritime 457s. Politicians from all parties were invited to attend, most sent their apologies, but only Green's Senator Lee Rhiannon turned up; her attendance was much appreciated.

The Australian maritime industry has been the

subject of numerous studies most of which have acknowledged the need for a strong Australian merchant fleet, not only for commerce but to support the Navy and to provide lifeline for Australia in the event of national emergency. The Royal Australian Navy has been a staunch advocate of the need for a strong Merchant Navy. It should have been a wakeup call for the Government, when it was forced to charter foreign tonnage to support the RAN during the 1999 East Timor crisis, as no suitable Australian ships were available. Australians should also be aware that Australia now has only one operational oil refinery and we are now dependent on foreign crewed and foreign flag tankers to transport and distribute ALL petroleum products and fuel throughout Australia, which leaves us vulnerable in the event of any interdiction of the supply route.

Yours faithfully,
Ted Wilson

Reference Vol 78 No.3 – The Problem of the Königsberg

Bruce Garton wrote pointing out to the editor that the photograph in the above issue purporting to be of Fregatten Kapitän Max Von Loeff KM was in actual fact that of Lieutenant Colonel von Lettow-Vorbeck 'who famously held out and did not cease his actions until after the Kaiser's abdication in November 1918'. Mr Garton feels it is 'remarkable on the part of the author, since the portrait is obviously of an officer wearing [an army uniform]'. Images are provided to papers by the editor and editorial board. This error was not the responsibility of the author, David Rees, whose article rightly won 3rd Place in the Navy's non-professional essay competition, 2015. The Editor takes responsibility for the mistake; apologies for it, and thanks Mr Garton for pointing out the error.

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Conflicting Use

In a separate letter to the *Honourable Secretary* concern was raised about support for 'nuclear-powered submarines, the need for fixed-wing carrier aviation, and the deliberate misclassification of the amphibious assault ships CANBERRA and ADELAIDE as aircraft carriers', see Page 32 Statement of Policy. The letter went on to say that the 'unique content has been of diminishing quality, with most articles now audience-generated essays or pieces copied whole cloth from elsewhere. The common content (Flash Traffic and other news) can be accessed in a more timely fashion through other sources'.

Response

The Editorial Board thinks it important to take



Fregatten Kapitän Max Von Loeff

stock from time to time and to consider whether or not we continue to 'steer toward the sound of the guns', as is our remit. In recent months the format has changed subtly but not significantly. The intention, generally but not always, is to run two contemporary maritime papers, and two historical. In the previous four issues, articles have been written by leading Australian academics, in addition to supporting professional and non-professional publications through the Navy Essay Competition. These are not audience-generated papers and neither are they copied wholesale from elsewhere. To do so would be plagiarism and carries with it issues of copyright. Such a charge is very serious and simply not factual – it is refuted entirely. Indeed, a number of these articles (including in Flash Traffic) are cutting edge and have set the stage for thinking at the national level – months before the debate, such as on the South China Sea, really got going. On Flash Traffic, yes to a point regarding availability

through other sources – however, much of our readership do not take their news from / cannot access such sources. As pointed out, Flash Traffic is a distillation of maritime news – always assessed and analysed to give the *NAVY Magazine's* interpretation, before publishing.

On nuclear-powered submarines and aircraft carriers, it is tempting to say that 'if it looks like a duck; walks and quacks like a duck; then it is probably a duck' – see this issue's front cover. The issue of nuclear-powered submarines is highly sensitive and was covered, in full, in the previous issue editorial, President's Page and by Dr. Roger Thornhill. It should be noted that Australia is purchasing a nuclear-powered submarine in the form of the *Shortfin Barracuda*. The design only makes real sense as a nuclear-powered submarine. Significant risk is added by re-designing as a conventionally powered submarine; for which alternative designs would make more sense. The Statement of Policy, p. 32, rightly does not mandate nuclear-power but invites consideration – knowing full well the politics surrounding the adoption and implementation of an, initially, civil-energy programme.

All that said, it is important to reflect and to take stock. There is considerable competition in the arena, today, much of it from Defence Glossy Publications (DGPs), sponsored / supported in some way by the Commonwealth. The Editor and Board take pride in being independent; raising the flag; and, championing such causes as Aircraft Carriers and Nuclear Power, even when this goes against popular politics. Nonetheless, we must always remain responsive to our membership – and so concerns such as these need to be addressed and thought through.

Erratum

The photo of HMAS BRISBANE (I) on the slipway at Cockatoo Island Sydney, The *NAVY Magazine*, Jul-Sep 2016, vol.78, no. 3, p. 14, was in fact HMAS ADELAIDE (I). Thank you JJ.



'If it looks like a duck': a CH-47 Lands on HMAS CANBERRA (L02) May 2016 Photo by LSIS Helen Frank, Navy News

As President of the League I have occasion to visit many places in Australia and sometimes, New Zealand. In June I made a trip to northeast Tasmania. I flew to Launceston, hired a car, and drove for two and a half hours. Mainly I drove through green countryside, not surprising as there had been floods only a fortnight before. Eventually I reached St Helens. A pleasant town on Georges Bay, with the Bay of Fires nearby.

My purpose in making this trip was not however as a tourist. I was in St Helens to present the Navy League Efficiency Trophy to TS *Argonaut*, the local Navy Cadet Unit. Last year I attended the Efficiency Trophy presentation in a hot sticky Brisbane in the middle of a tropical thunderstorm. The northeast coast of Tasmania made a bracing contrast.

The Navy League Efficiency Trophy is presented each year to the Navy Cadet unit judged to be the "Most Efficient Training Ship in Australia". There is no doubt that TS *Argonaut* well deserved the award. The manner, bearing and drill of the cadets was outstanding. The spirit of the cadets and staff was obvious.

TS *Argonaut* also has the benefit of strong support from the local community. It is to be expected on such occasions that there will be a large attendance of family and friends. And so there was. But the crowd included many others from the community. Among a large number of locals were the Mayor and Members of Parliament. I noticed that St Helens supermarket displayed a photo of the cadets in celebration of their award.

A few weeks later the League was involved in another presentation. This was the presentation of the Navy League of Australia Perpetual Trophy – Community Award. This award is made annually to the RAN ship or establishment that is judged by the Federal Council of the Navy League to have best served the community.

The award is open to every ship and establishment, no matter how large or small. Last year I went to Hobart to present the Trophy to Navy Headquarters Tasmania, probably the Navy's smallest establishment. This year the winner was HMAS CERBERUS, Navy's largest.

I was unfortunately unable to attend the presentation. Roger Blythman, a Federal Vice - President and Victorian Division President represented the League. Many readers of this magazine will be

familiar with the weather at Cerberus in July. Mid year divisions on the morning of 15 July took place in particularly cold conditions. It was as well that Roger wore his overcoat.

CERBERUS is always a great contributor to the community. This year was no exception. The work done to earn the award may be best summarised by quoting the citation.

This award is made in recognition of the vast and outstanding efforts of the Ships Company, APS and contractors for their continued commitment to positive engagement with the local and wider Victorian community.

The ongoing support to organisations for fundraising: Legacy, the Alfred Foundation, Salvation Army Red Shield appeal and the RSL ANZAC Day Appeal, are indicative of the wide spread generosity and efforts of HMAS CERBERUS. These plus the countless other instances of very positive community engagement are testament to the CERBERUS community's drive to live to Navy Values across and beyond Victoria. So strong is their commitment to community that 2015 has been designated the Year of Family and Community at HMAS CERBERUS.

It might be said that the common link between these two events is the Navy League. Or, perhaps, the Navy. That is true in both cases, but the other common factor is community. Whether it be all the many ways the ships company at HMAS CERBERUS worked in the community or the active involvement of the people of St Helens with TS *Argonaut*, this common factor in one way or another was community involvement.

The Navy League considers that the involvement of Cadets and the RAN in the community is to be encouraged. It is the view of the League that this community engagement undoubtedly enhances the opinion held of Navy and the Navy Cadets in the wider community.

Well done TS *Argonaut*. Well done HMAS CERBERUS.

ABCSEA75

The 75th Anniversary of the Battle of the Coral Sea occurs 4-7 May 2017. This was a momentous, although often overlooked, Battle for Australia, in which the RAN and the USN fought together for the first time. It was a battle that significantly changed the direction of the War



TS *Argonaut* Presentation: Inspecting Officer Commodore Bruce Kafer RAN, Director General Australian Navy Cadets and Reserves Inspection



Presentation to HMAS CERBERUS; Rear Admiral Brett Wolski RAN, Head of People Capability, the inspecting officer: Presentation by Roger Blythman, a NLA Federal Vice - President and Victorian Division President.

in the Pacific. Given current issues in the seas to our north, **ABcSea75** potentially provides the opportunity for welcome Event Diplomacy for neighbouring countries and an opportunity to come together. Just as Germany, was invited to the anniversary of D-Day from 1994 onwards, so it would be important to include Japan amongst other regional allies, including: China; India; the Philippines; Indonesia; Pakistan; Bangladesh; France; Sri Lanka; East Timor; Papua New Guinea; Fiji; Malaysia; Singapore; Myanmar; New Zealand; Brunei; Vietnam;

Cambodia; Thailand; Taiwan and South Korea, potentially attending. The 50th Anniversary was attended by President George Bush (snr). Occurring at almost a 100 days after the inauguration of the next President of the United States (whoever he or she will be), **ABcSea75** will represent an important opportunity for diplomacy and coming together in uncertain and potentially unstable times. Something Navies have always been good at.



RNZN 75

A reminder to all those thinking of attending the 75th anniversary of the RAN's closest brother and sister Service, the RNZN's International Fleet Review, along with many other events, occurs 17-21 Nov: see

<http://nznavy75.co.nz/category/events/>.

The RNZN and invited Navies (including the USN) will sail into Auckland Harbour for five days of commemorations and celebrations.

THE GLOBAL WEST IS ALL AT SEA

By Professor Julian Lindley-French

The NAVY set this author an interesting challenge; to consider the maritime positioning of Australia, Japan and the United States with regard to China. The challenge is interesting in two ways. First, my first thought was that ‘maritime positioning’ was some form of dynamic navigation device. Second, my very British keel is firmly anchored in Dutch waters. And then I got to think. One of my theses is that the West is no longer a place but a set of liberal values, interests and strategic assumptions centred on the United States and shared by partners the world-over. And, that the very idea of the liberal West is being challenged by illiberal power the world over with much of that challenge emerging on, under, and above the sea. It is in that geopolitical context one must necessarily consider the ‘maritime positioning’ of Australia, Japan, and the United States with regard to China.

Britain now had a world empire because she was the preeminent sea power; the lesson for Tirpitz was that if Germany wished to pursue *Weltmacht*, only possession of a powerful navy...could make it possible.

Castles of Steel, Robert K. Massie [1]

MARITIME POSITIONING

First, let me deal with what I mean by maritime positioning. It is the role of the respective navies of the three countries in relation to their own defence, all-important and evolving US grand strategy, and China’s own burgeoning geopolitical ambitions. This brief article will thus consider all three issues in turn before concluding by considering them all within the context of the global West.

The core message of the piece is direct; China’s naval challenge is not untypical of emerging illiberal powers. Beijing places much store on a powerful People’s Liberation Navy not just because such a force is

a legitimate weapon for the world’s number two economy to possess. Powerful navies have always played well to the strategic egos of emerging powers – liberal and illiberal. China is little different from Imperial Germany at the turn of the last century in this regard. Like it or not, unless there is an unlikely new treaty that would limit naval armaments the likes of China and Russia will determinedly draw the liberal West into a naval arms race that in its scale and strategic implications will look a lot like that between Britain and Germany in the run-up to the First World War. The regimes in Beijing and Moscow simply cannot help themselves. So, where do Australia, Japan and the United States fit into this changing strategic maritime picture?

AUSTRALIA

The Royal Australian Navy is a small, modern western force. Traditionally, whilst designed first and foremost to safeguard Australia’s national interests in and around Australian waters, the RAN has always played a wider geopolitical role as a strategic adjunct to other navies. For many years the RAN was in effect a far-flung flotilla of Britain’s Royal Navy. As Britain declined in the wake of World War Two the role of lead force was steadily usurped by the United States Navy.

Today, with a force of fifty commissioned ships focused mainly on frigates and conventional submarines, augmented by some amphibious and mine counter-measure capabilities, the RAN is again playing an important strategic role reinforcing the United States Navy (USN), particularly when it comes to the latter’s role in protecting the global commons vital to the well-being and security of the global West. Contrary to what some in Australia seem to think the RAN is not a strategic force in and of itself and future planning would not suggest any real ambitions on the part of Canberra for the RAN to play such a role any time soon.

JAPAN

The Japanese Navy is not dissimilar in role and function to the RAN, even if it is markedly larger. Since the defeat of the Imperial Japanese Navy in 1945 and the adoption of the post-war Japanese constitution the role of Japan’s forces as self-defence forces has severely circumscribed any autonomous strategic role for Tokyo. This restraint has been applied rigorously to the



JS ASAYUKI, HMAS BALLARAT, HMAS ADELAÏDE, JS UMIGRI and HMAS SUCCES in formation with JS HAKURYU Exercise NICHI GOU TRIDENT.



THE UNITED STATES

One reason for concern in both Canberra and Tokyo is the growing global overstretch of US forces, in particular the USN. As the world's only global power the United States looks increasingly like Great Britain in the 1890s when the naval challenge from Imperial Germany began to take shape. The Americans remain strong on paper but their forces are stretched thin the world over. Consequently, the illiberal powers now control the timing, the location, and indeed the manner by which they can choose to complicate American strategic calculation. It is a situation made

Japanese Navy precisely because the Imperial Japanese Navy was at the very heart of Japanese power projection during World War Two.

Like the RAN the Japanese Navy has for many years contented itself with guarding Japanese home waters and supporting the USN in maintaining a balance of power in East Asian waters and the wider Asia-Pacific theatre. So long as that balance was maintained the Japanese were content to play a purely defensive role as part of US naval and wider grand strategy. However, Prime Minister Shinzo Abe's planned revision of the Japanese constitution would permit Japanese forces to play a more assertive role in defence of a wider understanding of Japan's interests. This revision of Japan's strategic stance ultimately reflects Abe's own belief that the post-war balance of power in Asia-Pacific could at some point collapse. Abe has good reasons to be concerned.

worse by the political gridlock on Capitol Hill which for some years has been driving sequestration which in turn has badly damaged the US ability to undertake the long-term planning vital to strategic navies such as the USN.

Worse, the threat to global power projection navies from smaller, regional actors is growing. The advent of super-silent submarine technology, navalised ship-killing drone and missile, and other technologies is making it ever easier to disrupt power projection and increase the cost and risk of effective sea control and sea presence. Such technologies are placing at risk the big, expensive platforms upon which a global reach navy like the USN rely upon to fulfil the global power policing role which has been thrust upon the Americans, not least because of the strategic and political weakness of many key allies, most notably in Europe.

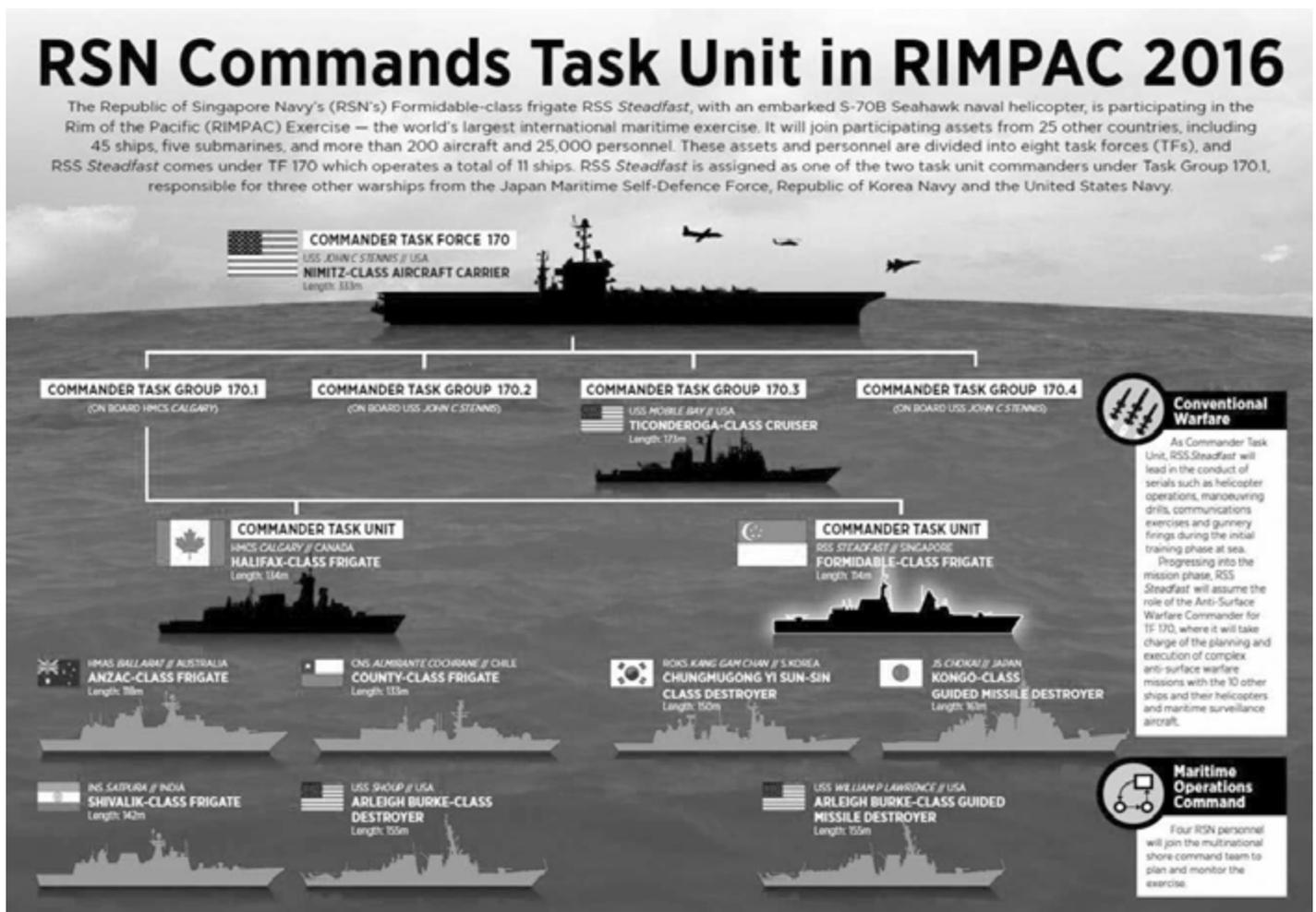


Figure 3 Republic Singapore Navy Task Unit Contribution to RIMPAC 2016 - Photo MINDEF.

CHINA

The big change-agent in maritime affairs is China which today is playing a role very similar to Germany in European waters prior to World War One and Japan in Pacific waters prior to World War Two. China has been growing its defence budget at double digit percentage figures since 1989. The People's Liberation Army Navy is developing a form of joint extended-reach strategic defence force with blue water capabilities that is fast tipping the balance of power in the South and East China Seas. This change has profound implications for Australia, Japan and the United States when the now highly-likely confrontation eventually happens.

Chinese strategy is clearly designed to establish exclusive control over much of the South China Sea, to force Japan into subordination in the East China Sea, and by demonstrating that China not the United States will determine the strategic shape of much of Asia-Pacific force Australia and other regional powers to treat with Beijing on Chinese terms. If successful China would successfully reduce both the influence of US forces in the region and the value of strategic partnerships with the US for regional powers. The stakes raised by the Chinese challenge are thus very high indeed, with particular implications for Western navies.

ALL AT SEA?

So, what to do about it? Let me take contemporary Britain as an example. There has been a lot of nonsense written about the state/fate of the Royal Navy. Some of the misplaced *Schadenfreude* about the Royal Navy borders on self-mutilation. However, the Royal Navy is actually showing the way forward for all non-American western navies. Yes, there are short-term investment, technological, equipment, and personnel challenges faced by the Royal Navy. This is hardly surprising for a country that provided the second largest force in support of US campaigns in Afghanistan and Iraq over thirteen long, attritional land-centric years. A country which had to endure a banking meltdown at the same time. Britain is roughly where the world's fifth largest economy and top five military spender would expect to be after the last decade. Australia needs Britain to be strong – period! The good news is that sea blindness in Britain is at an end.

RN'S RETURN TO STAGE

By 2023 the Royal Navy will again be one of the strongest power projection navies in the world. The commissioning of the two large 65,000 ton power projection carriers HMS Queen Elizabeth and HMS Prince of Wales is proceeding. The Type-45s suffer from technical problems that are in the process of being fixed, and the new Astute-class nuclear hunter-killer submarines are powerful reinforcements of the British fleet, and for political reasons if nothing else the Type 26 frigates will eventually be built.

What matters is the place of the Royal Navy in the British future force concept which is by and large correct given the nature of the coming global challenge. The mistake of the critics is to make false comparisons with the Corbettian Royal Navy of Empire or the not-at-all customary Mahanian moments of the 1914-1918 Grand Fleet or Sir Bruce Fraser's 1945 British Pacific Fleet when the Royal Navy deployed seven fleet carriers to support a hard-pressed, Kamikaze vulnerable Nimitz.

No, the twenty-first century fleet the Royal Navy is constructing will sit at the command hub of future coalitions of Europeans and other navies. It will leverage the naval power of others with the strategic aim of helping to keep the USN strong where the USN will need to be strong at moments of crisis. As such the future strategic Royal Navy will again buy Britain influence in Washington and elsewhere that no other ally will match. The RAN and Japanese Navy will need to play a similar role in Asia-Pacific if they are to remain relevant to the power game that is afoot. And, if Australia can overcome its sniffy attitude towards the Royal Navy and



Prime Minister Shinzō Abe and Defence Minister Tomomi Inada

ARTICLE 9 OF THE JAPANESE CONSTITUTION

Article 9 of the Japanese Constitution was enacted following World War II, on May 3 1947, specifically to outlaw war as a means of settling international disputes between states. Its text renounced rights of martial belligerency and sought to establish international peace, based on justice and order. As such, Article 9 of the Japanese Constitution is coherent and compliant with Articles VI and VII of the 1945 Charter of the United Nations; dealing respectively with the 'pacific settlement of disputes' and 'threats to peace and acts of aggression'. Article 9 also mandates that armed forces with 'war potential' will not be maintained. Dancing on the pin of 'war potential', led to the formation of the Japanese Self-Defence Forces – seen originally as being a peacekeeping force under, potentially, the UN. The Japanese Defence Force has three arms: the Navy; Air Force; and Army. In 2014 Japan took the decision to reform its Marines, along the lines of the US Marine Corps. Although currently part of Army, it is possible that the Japanese Marine (Corps), in time, will form up under Navy and, or, as a distinct fourth arm (within Navy), as per the USMC and UK Royal Marines. Also in July 2014, Prime Minister Shinzō Abe took the decision to reinterpret Article 9 (rather than amending the constitution), to allow the JDF to defend other allies in the case of war – based upon collective-self-defence (CSD). In a coalition setting – such as a maritime Task Force – collective-self-defence would be essential to maintaining effective Rules of Engagement and deterring potential acts of aggression, directed towards one or other coalition partners. The 2014 reinterpretation of Article 9 was upheld by the Diet in September 2015, when it enacted laws allowing the JDF to 'provide material support to allies engaged in international' combat operations. A specific ground being CSD and that by not defending/supporting an ally, it would weaken alliances and endanger Japan.

Following his landslide victory in July 2016 and securing a supermajority in the Upper House, Prime Minister Shinzō Abe indicated that he intended to amend and if necessary scrap Article 9. Having secured a majority in both houses for scrapping Article 9, approval would then require a nationwide referendum. Changes to the constitution of this magnitude are not a foregone conclusion; opposition from within Japan is likely to be significant, and not without political risk to Shinzō Abe. Not least being the highly public and potentially escalatory process of mounting and changing Article 9 in terms of Chinese (and indeed other South East Asian nations, such as South Korea) opposition. Recent indications of opposition to changing Article 9 and revising Japanese views of its war record came when the new Japanese Defence Minister, Tomomi Inada, (known for her revisionist standing on Japan's war record) sidestepped questions at a press briefing when she was repeatedly asked to condemn atrocities committed by Japan. China accused her of recklessly misrepresenting history.



PLAN HARBIN (112) takes part in China-Russia Joint Sea-2014 in the East China Sea May 2014.

focus on the positives rather than routinely seek the negatives then there are a lot of lessons for both partner navies to learn from each other.

THE GLOBAL WEST. NAVIES AND STRATEGIC LESSONS FOR AUSTRALIA

Security and defence are today globalised and Australia is part of the global West. If the likes of China and Russia continue to attempt to throw their illiberal weight around as they seem destined to do then India and other powers will no doubt seek the comforting embrace of the Global West.

However, the Global West will not happen by itself. It needs partners like Australia, Japan, the US, Britain and others to see the role of navies



All RN Type 45 Destroyers were alongside Portsmouth in Jul-Aug 16 due to technical failures.

therein for what they are; power projection forces of an American-centric global liberal community committed to maintaining a just balance of power. And, if needs be have the capacity and capability to project power via a necessarily blue water concept that affords influence, effect, and deterrence for ALL of its members.

Then, only then, will the new strategic arms race China and Russia are driving be seen to be folly and both Beijing and Moscow realise that such policy is simply the road to strategic and financial folly. That aim would in turn help re-institutionalise global security from which the two illiberal powers are currently breaking out.

The navies of the Global West will have a vital role to play in such strategy precisely because alongside the USN they can project power, exert influence through sea presence and project power discreetly and decisively through sea control. In other words, the strategic role of Global Western navies will necessarily need to merge both Corbett and Mahan and organise to that effect.

Therefore, Australia needs to realise the vital role of the RAN in such a strategy and seek the strategic partnerships – new and old – equally vital to realising such a role. If for no other reason than for the sake of Australia's own security in a world where nowhere is a strategic backwater and in which no-one can free-ride. In other words, this author's Yorkshire world-view of navies must be little different from the Australian world-view. ■

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FOOTNOTE

1 Massie, Robert K. (2007) Castles of Steel: Britain, Germany and the Winning of the Great War at Sea" (London: Vintage) p.9

THE IMPERATIVE OF CRITICAL SYSTEMS DESIGN THINKING FOR SCALING AND COMPOSING NAVY'S FUTURE SYSTEMS AND SHIPS

Based on a paper delivered by Vice Admiral Tim Barrett AO, CSC, RAN

This article is derived from the paper presented by Vice Admiral Tim Barrett AO, CSC, RAN to the Members of the Board of The Williams Foundation in August 2016. In his address, Chief of Navy (CN) set out to expand upon *Plan Pelorus* and to explain how 'Navy, as part of a Joint Task Group or Combined force, must evolve if we are to build the 2016 Defence White Paper right force that's fit for the right purpose'. To do this Admiral Barrett, sought to explain what he meant by a complex system; the integration requirements of future platforms and systems and how it would work 'systematically as a Joint Force – alongside [RAAF], Army, Defence and other government entities to achieve, or contribute to, the dominance [Australia will] require in the future maritime domain'. This paper seeks to provide some context and critique of *Plan Pelorus* and how it might evolve. A plan largely aligned with the NLAs Statement of Policy, page 32.

INTRODUCTION

Elements of *Plan Pelorus*, *Plan Jericho* and the Army's *Plan Beersheba* emerged from the (almost) two decade long, internal war between proponents of Effects Basing and Networks, Effects Based Operations (EBO), and Network Centric Warfare / Operations. Effects Basing was derived from the Air Tasking Order, which formed the basis by which air forces had been de-conflicted and interoperated during the First Gulf War. Based on US Army Doctrine Update No. 1, Combined Arms Doctrine Directorate, US Army Combined Arms Center, Fort Leavenworth, Kansas (24 February 2007) and General Mattis's 2008 missive [1], a reasonable understanding of the EBO *epistemology* may be:

A coordinating, staff-led process for codifying 'the enemy' and predicting the reactions of complex systems through an *admixture* of methodologies for prescriptively affecting military and non-military capabilities (affects) and anticipating their effects. [2]

In application becoming:

A [centralised, HQ] staff-led process for codifying 'the enemy' and predictably [anticipating] the reactions of complex systems [by replacing military doctrine and the human dimensions of war] through an *admixture* of [knowledge management] methodologies for prescriptively [controlling] military and non-military capabilities (affects) and [analysing] their effects. [2]

Deriving from work by Alberts et al. (1999); Alberts and Hayes (2007); and Moffat (2011) [3] [4, 5] the NCW/O *ontology* was an emergent military response to the Information Age; incorporating human and organizational behaviour, based upon adopting a new way of thinking and applying it to military operations by focussing on combat power generated from the effective networking of geographically dispersed forces:

Network Centric Warfare stresses the coalescing of the strategic, operational and tactical levels of power with mission command, by *synthesising* the socio and infotechno; human and organizational



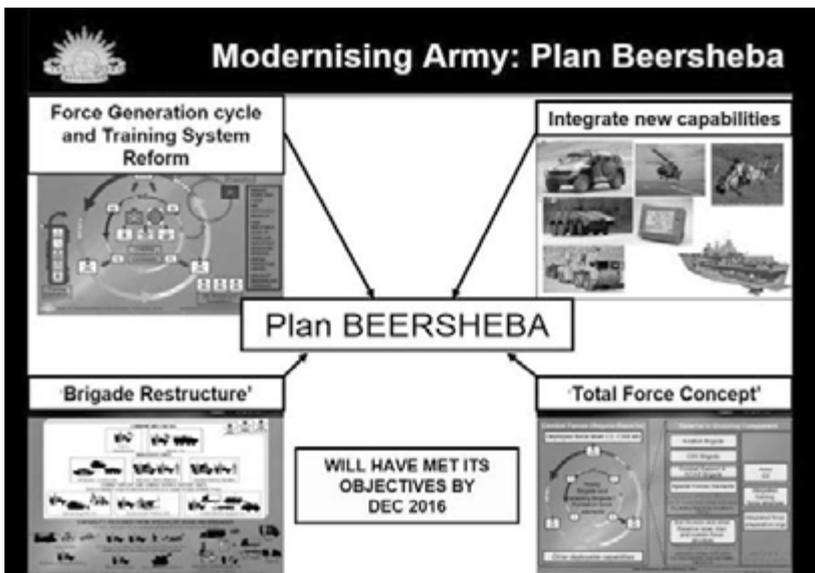
Plan Jericho.

behaviour; collaboration; shared awareness; self-synchronisation; improved decision-making and decision-taking, with the combat power generated from the effective networking of geographically dispersed forces. [2]

Considerable objections have been raised to Effects Basing, notably by General Mattis USMC in 2008 following the arguable failure of Effects Basing in Iraq, Afghanistan and in the 2006 war between Israel and Hezbollah, in southern Lebanon – the *Mechdal*. The war between the Effects Based epistemology and the NCW/O ontology has yet to be resolved – other than attempts to ram the two together in aempirical notions such as Hybrid Warfare. Consequently, the three doctrinal-concepts remain in being: EBO; NCW/O and Effects

Based Network Operations, see Smith (2005) [6] – where Effects Basing attempted to epistemologically absorb the network. A more fundamental objection may arise when considering the Clausewitzian dictum about 'war being the continuation of politics through the *admixture* of other means'. Examined closely, Effects Basing is about the 'continuation of war with a methodological admixture of other means'. The ends become the means! Whereas, NCW/O may be coherent with Clausewitz's maxim about war being the continuation of politics through a networked *admixture* of other means!

From a military perspective, whereas Air Force concepts (including in US and UK) have continued to develop along Effects Basing lines (rooted in the ATO); Armies and Marine *Corps* have tended to reject both Effects Basing and Network Centric Warfare / Operations, to concentrate on Doctrine (neo-industrial age warfare and the *levée en masse*). It is Navy's that have tended, through for example Cooperative Engagement Capability (CEC), to maintain the faith. These conceptual and doctrinal divisions continue to be seen, as also potentially in the development of *Plan Jericho*¹, for RAAF; *Plan Beersheba*² for Army; and, *Plan Pelorus*, for Navy.



Plan Beersheba.

CRITICAL, SYSTEMS AND DESIGN THINKING

The bases of rescaling, recomposing and rebuilding Navy for the 21st Century will be founded upon three skills sets – which will require to be developed in all of today’s Navy (and ADF and APS), if tomorrow’s challenges are to be met. Inclusive of environmental knowledge and skilled in the discipline of war, these will include Critical, Systems and Design Thinking. For which the following definitions are provided:

Critical Thinking: the ability to form and to ask the right questions and make useful sense of communicated data and information that is technically complex, *networked*, incomplete, contradictory and subject to competing claims and interests.[7]

System Thinking: the ability to determine appropriate collaboration and coordination options for complex systems and *networks*, taking adequate account of different environments, ecologies, identities, classes, types, configurations, dynamics and constraints and being able to influence or control outcomes.[7]

Design Thinking: The ability to rationally investigate the truths and principles of being, knowledge, or conduct, supported by an abductive, deductive, inductive (inclusive) approach to problem solving - comprising reflection; question forming; system identification; instrumentation; agreeing an ontology; classification; modelling; and metrication. [8]

PLAN JERICHO AND PLAN BEERSHEBA

CN notes that ‘these are important times and [he has] closely followed the development of *Plan Jericho* and watched it quickly evolve. I believe Air Force is certainly on the right track to prepare for an increasingly sophisticated operating environment. You will not be surprised, therefore, to learn that Navy is also working towards becoming a more *agile*, integrated networked and potent force’. The emphasis place by Vice Admiral Tim Barrett is on *agility* and *integrated* networks to create a potent force – the hallmarks of networking, as opposed to Effects Basing.

On Amphibious Warfare and *Plan Beersheba*, Gleiman and Dean wrote in The NAVY Magazine (Oct-Dec 2015) and for ASPI (2015) [9, 10] that:

Of the three services, the Army faces the greatest challenges in meeting the likely demands of the Australian Government for amphibious warfare capability. More than three years ago, in *Plan Beersheba*, the Army announced a strategic decision to build a

sustainable, balanced force that is not optimised for any specific mission, but is instead constructed to be adaptable, relevant and ready for the broad spectrum of warfare. However, *Plan Beersheba* doesn’t yet adequately meet the joint amphibious capability demands of likely operations within the ADF’s primary operating environment and the Indo-Pacific region. Therefore, we recommend the development of tiered amphibious readiness that integrates with the *Beersheba* model.

Gleiman and Dean continued: ‘to ensure the integrity of *Plan Beersheba*, the Ready Battle Group (RBG) and attached enablers within the ready brigade should be used to provide the necessary additional combat power when amphibious operations require the deployment of an Amphibious Readiness Group’. This, they argued, ‘would be a uniquely Australian solution to a uniquely Australian amphibious warfare challenge’.

It is significant that, while CN recognised *Plan Jericho* he did not mention or address *Plan Beersheba* – potentially suggesting de facto recognition of the antithetical nature of *Plan Beersheba* to *Plan Pelorus* (and *Plan Jericho*); while identifying critical, systems conceptual and ontological differences between Navy and Air Force design thinking.

PLAN PELORUS

In 2015 CN launched *Plan Pelorus*: ‘Navy’s strategy to prepare for a very complex future strategic environment’. CN observed that ‘if Air Force’s

HMA Ships CANBERRA, BALLARAT and SUCCESS with HMNZS TE KAHA exercising Task Group operating procedures Jun 2016.



plan evokes images of “walls tumbling down”, Navy’s plan evokes an historical navigation instrument which, for those who enjoy a bit of trivia, was named after the navigator who got Hannibal across the Strait of Messina and towards his destiny’. In Admiral Barrett’s mind’s eye, ‘the 21st Century Pelorus will aid in navigating the RAN towards its destiny’, by:

- Acknowledging the changing character of global affairs;
- Recognising the need for us to set a heading for a fifth generation Navy and beyond;
- Creating a force capable of generating and deploying *self-supporting* and sustainable maritime and *joint task groups*; and
- Like *Plan Jericho*, demanding innovation at all levels of Navy’s organisation by;

- Recognising the need for technologically advanced naval systems to combine in the modern fleet system and integrate seamlessly across the joint and networked environment.

Significantly, CN reaffirmed that *Plan Pelorus* is not an endstate and that 'its what you do with [the] network that is important. Importantly, Pelorus is not focused on individual ships, submarines or airframes. It recognises that our platforms need to operate as a system - indeed as a system of systems (SoS)'. There is some risk in CN's consideration of 'system-of-systems', since it is deeply rooted in the Effects Based epistemology and a part of the reasoning behind the General Mattis rejection. Networks are different to systems – but our empirical understanding of networks can help us to model systems and complexity. It may be necessary to think more of networks-of-networks (than SoS) to maintain an empirical understanding.

TASK-GROUP ORIENTED NAVY

CN is potentially on stronger conceptual ground when he considers a task-group orientated (TGO) Navy; noting: 'a task-group oriented Navy provides Government with options: significant and necessary options to meet the full spectrum of threats that may challenge us in the maritime environment and to enable government to implement Australia's strategic policies'. Recognising that the Navy always has been task-group orientated, he also noted that Operations SLIPPER, FALCONER and DAMASK, and that task group mentality [have] dominated [Navy's] operational and doctrinal culture. In looking to the nature of 21st Century task groups, Admiral Barrett considered that operations have 'changed markedly from what they were a little over a decade ago', including:

- The changing threats and the change in Navy capabilities and operational concepts;
- Task group operations aimed at maximising capability, reducing risk and achieving operational success;
- Building a powerful and influential force that can pack a real punch.
- Enabling the concept of 'distributed lethality' to be woven into Navy designs and enable *interoperability* with the US.

On Distributed lethality, CN stated that this was 'about maximising the adversary's vulnerability, while reducing ours. It's no longer about concentrating effort as a close-knit force. It's now about complicating the adversary's picture by distributing our capability across a much broader medium'. He saw the delivery of lethal effect as being distributed across platforms, which operate together in a system. Meaning, since one platform can defend another, that risk is managed and distributed across the task group – ultimately providing for greater resilience. An example being the (2015) release of information regarding the USN's development of Naval Integrated Fire Control – Counter Air (NIFC-CA) system and 'what may be possible when a specific system is successfully integrated within a Task Group. Using existing sensors, networks and combat management systems, together with a new generation of more capable weapons, NIFC-CA rebalances the battlespace between our maritime force and the adversary's aircraft and weapon systems'. Noting that what the USN can achieve in terms of distributed lethality, is different to that of RAN, NIFC-CA 'serves as an example of what can be achieved—particularly when [considering] the commonality of systems and operational objectives [Australia shares] with the USN and USAF'.

INTEROPERABILITY

A NATO definition for interoperability is:

'The ability of systems, units or forces to provide services to and accept services from other systems, units of forces and to use the services so exchanged to enable them to operate effectively together.'

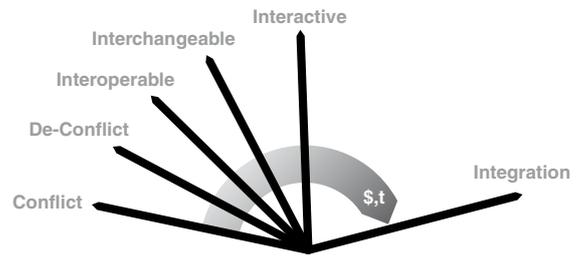


Figure 1: Arc of Interoperability [11]

An 'arc of Interoperability' exists 'moving from conflict, when units or forces 'bump into each other', to de-conflict (how the allies fought the first Gulf War); to being Interoperable (a level at which the US, UK and Australian land forces fought the Iraq War); to Interchangeable (where most NATO Maritime and Air Forces are) to Interactive (at which UK, US and AS Special Forces operate) to Integration (at which the Joint Air Operational Center manned by US and UK (and AS) personnel fought the Iraq war)' [11].

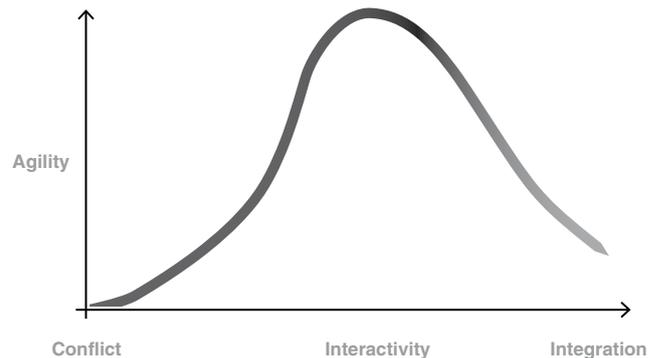


Figure 2: Agility versus Integration Playoffs, after Keller et al [11]

There are order of cost magnitudes 'moving from interoperable to integrated forces, with time and cultural implications regarding training, experience and education'. Not only are costs seen to be involved but interoperability may also be seen as a function of agility: the more one moves towards integration, the more one controls or composes the network. The more composed the network, 'the less agile it will become'. There are pay offs in terms of the degree of integration, cost, time, control and so agility, see Figure 2 and Keller et al [11].

At the Air Power Conference CN 'spoke about Navy's approach to integrated multi-domain operations—and the challenges of maintaining Australia's technology edge and capability superiority over potential adversaries'. He recognised that 'the key to military effectiveness will rely as much on our skills at the drawing board as on the battlefield. This means that Navy's ability to integrate the fleet with Wedgetail, JSF, P-8 Poseidon, Triton, Growler and other mission systems will be essential to realising the force supremacy potential of these platforms'. CN further noted:

- Interoperability with comparable US systems, fundamental to achieving success in distributed lethality systems.
- Forces designed to be capable of coherent, independent ADF operations, and;



RAAF EA18G Growler.

- Capable of contributing individual ships, submarines, aircraft or task groups to coalition operations;
- Integration factored into our forces from the outset.
- Navy as committed to *Plan Jericho* as to *Plan Pelorus*.

FORCE DESIGN

Noting the Defence White Paper (2016) CN considered that Navy had been given the opportunity to ensure the future fleet's combat and weapons systems are designed to work together as one, and that our people are trained to realise the potential of this fighting system: 'it must be *interoperability* by design'. Notwithstanding that future individual platforms will have significant enhancements over the capabilities of today; CN recognised that it will be at the system level that significant force multiplier effects will become apparent. Fundamental to agility are people, recognised by CN to be the most significant factor driving success in operations. 'Plan Pelorus addresses those serving now and those we need to recruit because they have skills we need if we are going to operate the systems we will be acquiring'.

AIR-SEA INTEGRATION AND JOINT WARFARE

A theme emerging from CN's paper was Navy not simply being a Joint Force but also 'an integrated force, joined at the hip as we move to deliver what the government has mandated for us'. Noting that in a complex adaptive system, the sum is more than the sum of the parts, CN supported the recent remarks of the Chief of Air Force when he opined that 'the sum of the Services operating together is clearly greater than any of us operating individually' [12].

In terms of what the Navy is developing through *Joint Warfare*, CN noted that 'the variety of technological developments—when batched together as a warfighting system—brings a substantial advance in fighting power and consequent lethality'. Going back to the early days of NCW in 2002/3, Vice Admiral Barrett described the advantages of *cooperative engagement capability* (CEC) in the Hobart Class. He saw this as providing 'a systemic approach to collective defence and offence ...essential across the ADF and indeed across our Allies. CEC makes us more lethal and more effective'. CN sees lethality as being key to ADF's ability to wage war and, subsequently, key to how we deter. Furthermore, he recognised that the Joint system ADF is building will have a disruptive impact on the planning of any adversaries – complicating their assumptions. This needed to become 'the central driver of all defence capability planning'.

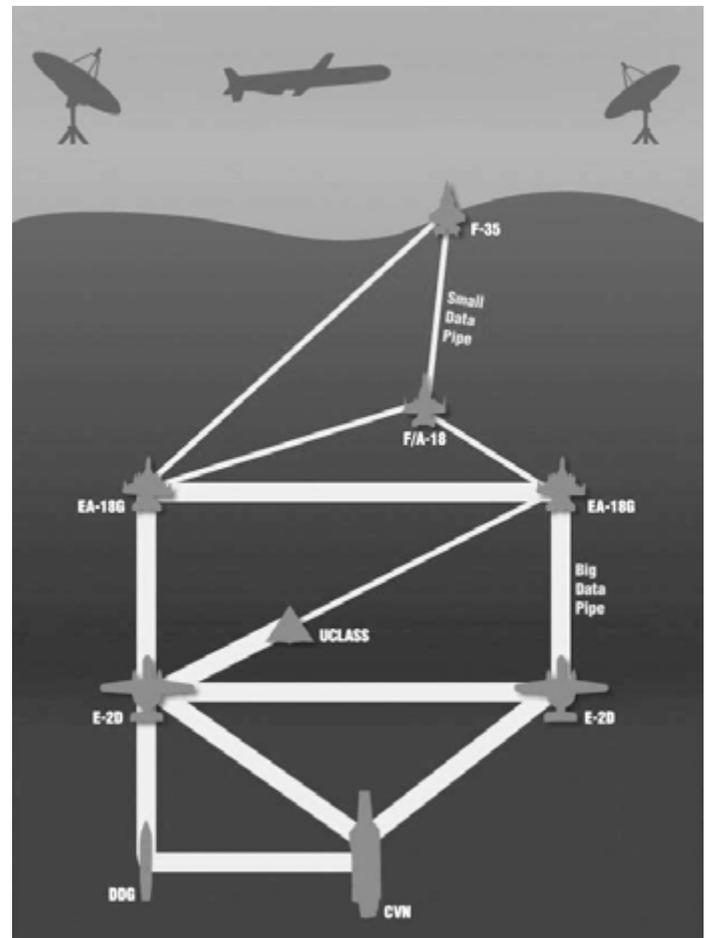
CONTINUOUS SHIP BUILDING STRATEGY

Noting that the level of systems integration necessary will not be easy, CN recognised the need 'to clearly define the capability requirements for the integrated Force, and ensure we are prepared to exploit and leverage new technologies and systems'. He saw 'the Continuous Ship Building Strategy (CSBS) [as] the necessary means – the only means – by which [Navy] will achieve the level of systems integration and maintain the technological edge required for Navy to function as task groups'. To successfully achieve this, Navy's 'design philosophy must be thinking ahead...no longer just buying ships off someone else's production line'. This extended to the new One Defence Enterprise; to seeing how

Navy, Industry, Defence, Army and Air Force are thinking and designing ahead – and 'seeing them at the planning table':

CSBS is about designing the right systems and equipment and about bringing together the necessary information to 'decide how we are going to evolve and fight with these new systems. [ADF needs] the right information to maintain decision superiority, to focus...efforts in science and technology activities, and drive optimal investment in ...infrastructure and estate'.

Noting the Defence Industry Policy Statement identified Industry as a Fundamental Input to Capability, CN recognised that resources were also provisioned to enable industry, academia and government to work together—to mature innovative concepts and technologies to enhance capability:



US Navy Integrated Fire Control-Counter Air (NIFC-CA) linking aircraft and ships with high-bandwidth data connections.



NUSHIP HMAS HOBART III (D39) Photo CPL Nicci Freeman and Mr Ed Garner Navy News.

For the Navy, the nation's industrial baseline is the foundation that enables us to keep pace and stay ahead. Like Air Force, Navy is a materiel system that requires an innovative and agile industrial base so it can meet the ever-evolving challenges ahead. The next generation of air and naval forces will be characterised by technologies that enhance our situational awareness and tactical reach.

INFORMATION TO SUPPORT OUR DECISIONS

Maintaining Navy's 'technology edge will demand the ongoing development of the necessary Intelligence Mission Data (IMD) systems'. This will require 'a paradigm shift that the Navy must lead and own', including:

- Comprehensive data inputs – EW libraries, orders of battle, characteristics and performance of our potential adversary and geospatial intelligence.
- Changing to the way we train and fight within Australian and Coalition Task Groups.
- Defining and understanding the roles of different platforms in a coalition task group
- Developing tactics and training to deliver decisive lethality
- Reducing the time taken to make a ship Unit ready and focus our training efforts on Task Group readiness
- Fully exploiting synthetic training environments to achieve this
- Working seamlessly with our allies to deliver distributed lethality.

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End Notes

1. See *Plan Jericho* Report <https://www.airforce.gov.au/docs/Plan-Jericho-Booklet.pdf>
2. See *Plan Beersheba* Presentation: <http://www.army.gov.au/~media/Army/Our%20future/About/Army%20101%20Brief%20Ver%207%20-%20Modernising%20from%20Beersheba%20and%20Beyond%20v4.pdf>
3. The difference between education and training may be summed up when considering whether a parent would like their child to be doing sex education or training!

COMMENT

The Williams Foundation address potentially represents one of the most important public statements of intent that CN has made since taking office. Its reach is wide and plays significantly into the Navy League of Australia's own Statement of Policy, p. 32. There are critical issues, however, that will determine the success of *Plan Pelorus*, some of them identified above. There are significant philosophical, theoretical and methodological differences between *Plan Jericho* and *Plan Pelorus* that will require thinking through. The Army's position under *Plan Beersheba* represents something of a doctrinal retreat to mass and the mythical German plains. Meanwhile, Effects Basing is a methodological response in which capability drives strategy – in other words, there may be no strategy. Concomitantly, *Plan Beersheba* does not 'adequately meet the joint amphibious capability demands of likely operations within the ADF's primary

operating environment and the Indo-Pacific region'. The Navy's networked approach under *Plan Pelorus* may offer the most realistic way out of the log jam but cannot deliver more than the sum of its Joint Service parts, if Army, Air Force and Navy continue to strategize, operate and think separately.

Finally, there is the counterfactual to be considered. Of course all three Services will argue for agility, integration and more lethality – they would hardly argue for the reverse! What, therefore, is the case against which progress can be made and planning turned into substance? Effects Basing appears to be a philosophical dead end – significantly because it is not a philosophy or strategy but a methodological theology! Army thinking is seemingly in retreat and yet is fundamental to realising Joint amphibious capability. As President Roosevelt reportedly stated, 'the value is not in the plan but in the planning'. Planning is about people and the *agility* they bring to ADF through *interactive*, critical, systems, and design thinking. It is not an IT or Black Box. It is about education and not training.³ It is education that is likely to provide ADF with the ability to design, scale and compose the ships and crewing models necessary to deliver all three plans – to turn thinking and strategy into capability. This is the challenge of our time – is Navy up to it? One senses CN believes firmly that Navy is! ■



COURSE CHANGE: NEW ZEALAND DEFENCE WHITE PAPER 2016

The New Zealand government released its Defence White Paper, on June 8, in which it announced a modest \$AUD30 billion increase in Defence spending to 2030, to replace and upgrade military hardware.

Although the DWP has the support of NZ's major political parties, there is opposition based ostensibly upon reductions in spending on social services and a perception that the paper places NZ squarely back in ANZUS; as a regional bulwark to China. Not surprisingly, just as China has targeted sympathetic politicians, industrialists, academics and media (in Australia and U.K.) to articulate Chinese, state-based opposition / propaganda to US geo-strategic positioning (the Pivot), so too has it in NZ. This is a potentially dangerous game. Just as New Zealand's economy is heavily reliant on primary industry and food exports to China, its second largest trading partner; so its major Alliance partnerships are with the U.S. and Australia, through ANZUS and Five Eyes. A recent, rather underwhelming U.S. RAND examination of ANZUS (RAND's Pacific Office is in Canberra), took an overly symmetric view of the Treaty. There are costs to alliances with the U.S., that allies need to understand and the current U.S. positioning is potentially costly and unstable – particularly if it is overly positive and symmetric? The NZ DWP while not endorsing, per se, does recognise Japan's move to reinterpret Article 9 of its constitution and so enable a more forward leaning (interventionist) self-defence force positioning. There are potential reasons why all sides need to tread carefully here – it is as much about pivot strength as U.S. weakness.

The DWP specifically identifies funding for new maritime patrol aircraft and UAVs to patrol NZ's EEZ, out to the wider Pacific, Asia and Antarctica. A ice-strengthened vessel is being provided to Navy to patrol NZ's Southern Ocean claims, which China is also beginning to contest, as with Australia claims to Antarctica. New strategic and operational air-lift aircraft for the rapid deployment of ground forces is also being identified. Noting that Australia and New Zealand have lent forward more than most European powers – with the possible exception of France – in the war against ISIS. Cyber Warfare – tied also with the NZ Government Communications Security Bureau (New Zealand's intelligence agency) also figures significantly. Significantly, the Labour Party in supporting the

DWP considered it should do more. Defence spokesman Phil Goff stated: 'With cuts in expenditure and capabilities in recent years, much of what the Government is intending to spend is simply catch up'. He further noted the 8 percent reduction in military personnel – mostly in key engineering, communications and cyber positions – since 2009. There is also an undercurrent – as in Australia – recognising NZ's unique island status and historical links to the maritime and calling for a better-equipped and forward leaning Navy. Although in its infancy, this may potentially lead to NZ creating its own Submarine Service, downstream. There may be synergies with RNZN expansion and RAN's submarine and future frigate programmes.

SOME CAT; SOME CLAWS

In 1940, French Marshal Philippe Pétain, later to become the leader of the collaborationist-Nazi Vichy French government, said to Churchill 'that Germany would successfully invade Britain as it had done France'. And that, 'in three weeks, Britain would have its neck wrung like a chicken'. In Ottawa, December 1941; ill at the time; with the U.S. just entering the War and the grim 1942 yet to come, Churchill made his famous retort: 'Some chicken! Some neck!' So humour and true grit may be the response to China's state run Global Time's post Hague UNCLOS edict, accusing Australia of being 'not even a paper tiger', but 'a paper cat at best'. Interestingly, feral cats have done more damage to Australia's flora and fauna than almost any other introduced species. Cats have adapted to their new habitats just like our First People and subsequent settlers have done. Settlers, the state paper accuses of being delirious with their

'inglorious history...[as] an offshore prison of the UK and then became its colony, a source of raw materials, overseas market and land of investment. This country was established through uncivilized means, in a process filled with the tears of the aboriginals'.

There is a point about Australia's indigenous population, which Australia, through common decency, law and commonwealth, will address. Better than any Mao! Australia is the last great experiment – and like feral cats, its feral population – for that is the real derogation the editor was making – (drawn from all over the world), are fiercely independent and cussedly minded. The Desert Rats were named after the ANZAC Defenders of Tobruk – the name then

expropriated by the British Army. In response to China, Australia may not be a Tiger – whose numbers are threatened by the illicit trade in animals, most of it based in China – but it is a survivor, and it's got some claws. Not such a bad name after all?

The risk for Australia is being drawn too symmetrically into the space China wants to place it in – as a proxy for the U.S. that it can then target. The Op Ed goes on to say:

'Even with a scarce population and vast land, Australia has disputes with other countries over territory. It claims nearly 5.9 million square meters of land in the Antarctic, accounting for 42 percent of the continent. In order to back its territorial claims, Australia even brought up the activities of the British in the Antarctic as evidence.

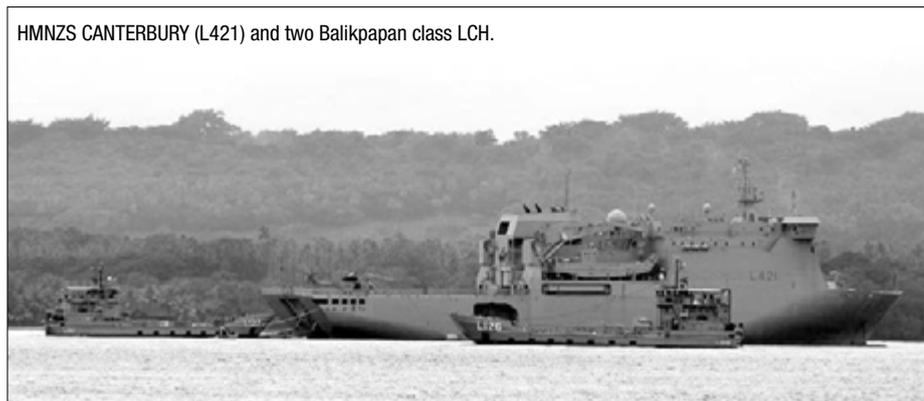
Since The Antarctic Treaty was signed, all territorial claims over the continent were suspended. Canberra then raised another claim to demand the Antarctic continental shelf. It cited Article 298 of the UN Convention on the Law of the Sea to avoid a demand by arbitration by others.

Both historical rights and the exemption of arbitration as ruled in Article 298 of the UN Convention on the Law of the Sea were denied by the arbitration tribunal. Australia showed blunt double standards as if no one had a memory of what it did and said over the Antarctic'.

Looks like this cat's got balls too! The editor's Chinese maritime positioning of Australia is clear, as too has become the extent of the penetration of Australian political and media sympathisers – Stalin's useful idiots – prepared to make the useful op-ed here, and support the sale of a port there. Australia needs to avoid being positioned by other powers and stealthily, cat-like to walk this particular maritime alley with care and poise. Like Top Cat to the U.S.'s Officer Dibble?

RIMPAC

27 Nations participated in the World's Largest Maritime Exercise in July and August 2016; including from Australia, Brazil, Brunei, Canada, Chile, Colombia, Denmark, France, Germany, India, Indonesia, Italy, Japan, Malaysia, Mexico, the Netherlands, New Zealand, Norway, the People's Republic of China, Peru, the Republic of Korea, the Republic of the Philippines, Singapore, Thailand, Tonga, the United Kingdom and the United States. RIMPAC is designed to provide a multi-national training opportunity that helps participants foster and sustain cooperative relationships, critical to ensuring the safety of sea lanes and security on the world's oceans. Firsts include the U.S. Navy's Great Green Fleet year-long experiment, using energy conservation measures and alternative fuel blends to demonstrate increased resiliency. RIMPAC 2016 was led by U.S. Vice Admiral Nora Tyson, commander, U.S. 3rd Fleet (C3F), as Task Force Commander with Rear Admiral Scott Bishop RCN serving as deputy commander, and Japan Maritime Self Defense Force Rear Admiral Koji Manabe as the vice commander. Commodore Malcolm Wise RAN, commanded the maritime component; and Commodore James Gilmour RNZN, commanded the amphibious task force.



CHINA & RUSSIA GAME THE SOUTH CHINA SEA

China and Russia are to hold joint naval exercises in the South China Sea in September, potentially adding to regional tensions following the Hague's international tribunal's rejection of Beijing's maritime claims, in favour of the Philippines. However, China and Russia are also pursuing diplomatic means to bring President Rodrigo Duterte and the Philippines into their camp – in the face of U.S. Western criticism of human rights abuses, with regard to his anti-drug policies – and Russia with Japan over negotiating its claims over the Kuril islands. The intent appears to be classic carrot and stick; divide and rule – orchestrated in the strategic interests of both Russia and China – with the view of denying the U.S. the fulcrum for its pivot. These are the first joint exercises in the South China Sea between China and Russia, and are the first announced by any countries since the tribunal at the Permanent Court of Arbitration in The Hague ruled overwhelmingly against China on July 12 in the case brought against it by The Philippines. Acting US assistant secretary of Defense for international security affairs Elissa Slotkin said 'There is this disgruntled feeling about how the end of the Cold War went for [Russia]. And I think Putin is playing on that with the public, his public'.

In 2014, Russia and China held joint naval exercises in the East China Sea for the first time, a few months after the flare-up between Beijing and Tokyo over the Kiril islands. In May 2015, China and Russia held drills in European waters for the first time — in the Mediterranean and the Black Sea; following Moscow's annexation of Crimea from Ukraine in 2014. These were followed by drills in the Sea of Japan in August 2015.

Vietnam finds itself being awkwardly positioned between its long-standing enemy China; its longer term Vietnam war ally, Russia; and its Vietnam War foes – the U.S., and Australia and New Zealand. Despite some set-backs following the Long Tan anniversary this year, there is much Australia and Vietnam have in common to reinforce relationships and maintain regional balance.

MAY'S DAY OF RECKONING

The Brexit-elected British Prime Minister, Theresa May, has acted swiftly to challenge the extraordinary decision by the Cameron government to sell its nuclear power industry to the Chinese. These and other concerns, including the use of Lloyds as the classification base for Chinese modularised, offshore nuclear propulsion systems, was raised as being a matter of strategic concern in The NAVY, Flash Traffic, Jan-Mar 2016 Vol. 48, no. 1. The original decision – taken by the Cameron government – showed a complete lack of strategic sense or noblesse oblige, not only to its own industry but its long-standing nuclear partner, the U.S. It summed up to many the Letwin-Cameron lack of understanding and competency in these matters – and a wish to chase the fast-media buck. It appears that the Duke of Edinburgh felt pretty much the same during the heavy-handed state media-visit of

HMS AMBUSH (S120) enters Gibraltar after collision.



President Xi Jinping to the UK in 2015. The venture needs to be seen in light of concerted efforts by both Russia and China to divide the U.K. from the U.S. – seen in Russian meddling in Scotland and the City of London over both the Scottish referendum and Brexit. Negotiated by the Liberal Democrat Sir Ed Davey (they are all Sir's now), an industrial-analyst described it as 'the worst deal I have ever seen'. The negotiation, which pulled the rug from under the French energy provider (and nuclear engineering company) EDF, did little for UK-FR relationships, either – setting an energy price three times the market rate – over a period of 35 years. Britain, which once led the world in nuclear reactor technology, was set to buy a power station which would have produced the most expensive nuclear electricity in the world. The sale went ahead despite warnings by MI5 that 'the intelligence services of...China...continue to work against U.K. interests at home and abroad.' For the first time since Mrs Margaret Thatcher, it is possible that the U.K. has an empiricist PM in Mrs Theresa May, who is going to look very carefully and pragmatically for sound evidence-based policies, in U.K.'s wider strategic defence and industry interests. This has important messages for the Australian Government in setting Australian Industrial Maritime Strategy (AIMS) on an empirically-sound basis; while maintaining strategic awareness of national and competing interests, at home and abroad.

GREENWICH STATION

Greenwich was the famous purpose designed Naval College sold off, in part, to Woolwich, then Thames Polytechnic; now Greenwich University in 1998. The year, it would appear, the RN stopped thinking geo-strategically.

DETERRENCE IMPACT

Given the unreliability of the T45's, the RN needs at least 20 Frigates just to patrol its own waters and maintain the continuous, at sea Deterrence Forces, with a second strike capability. Something UK is no longer capable of doing – which has raised the concerns of Scotland's first minister, Nicola Sturgeon, and Russian President Vladimir Putin. Sturgeon also described the delay to the T26 programme, as a 'disgraceful betrayal and a

breach of the promise made in the [independence referendum]'. First Sea Lord (1SL) Admiral Sir Philip Jones, told MPs that the RN would have to tailor the number of ships to the tasks that could be carried out. Previous 1SLs have described even the 19 figure as being totally inadequate.

TRIDENT REPLACEMENT

Pressures on the surface navy programme have inevitably arisen after the approval to build four new Trident submarines at an official cost of at least \$31bn; coming from the Navy vote for the first time. A government spokesperson said: 'the UK government is committed to building ships on the Clyde and to the Type 26 programme. Over the next decade, we will spend around £8bn on Royal Navy warships and, because Scotland voted to remain part of the UK in 2014, will continue to be an important manufacturing base for them'.

AMBUSHED

One of the consequences of having all T45s tied up alongside in Portsmouth; the availability versus increasing cost of maintaining the remaining 13 Type 23s, and the indefinite deferral of the T26 build, is that the RN is having to use its SSN Submarines for routine picket and base patrolling, such as for Gibraltar. Something for which attack submarines were never designed. This has assumed even greater importance since the incident earlier in the year during the Brexit vote when Spanish cutters harassed the SSN USS FLORIDA, as it was entering Gibraltar – forcing an RN Patrol boat to fire a flare across the cutter's bows. HMS AMBUSH apparently came up under a cargo ship while undertaking routine CO Perisher training, on patrol off Gibraltar – one of the busiest sea routes in the world. Ambush suffered a glancing collision, according to the MoD. The RN has suffered a series of ship / boat threatening incidents; running now at about 2-3 a decade since 1998; despite the collapse in ship numbers raising questions about command competency and basic standards. The CO of HMS AMBUSH was apparently looking forward to some leave having been 'V busy' – another indication of the stress being placed on ships and crews – more and more; for less and less.



Qatar's LPD design based on Algeria Navy KALAAT BENI ABBES (L474).



QATAR NAVY EXPANSION

In a significant signing, Qatar is to develop a large modern Navy with the Italian shipyard Fincantieri; trained and supported by the Italian Navy. At the heart of the Navy will be an LPD similar to the Algerian Navy's Kalaat Beni Abbes. Fincantieri reported that Qatari officials signed a contract worth approximately \$AUD 6B covering the construction and delivery of seven vessels, as well as support services for 15 years. All the vessels will be built in Fincantieri shipyards in Italy between 2018 and 2024.

The vessels will also include four corvettes over 100 m in length, and two offshore patrol vessels (OPVs). The corvettes will each displace about 3000 tonnes and will be fitted with a hangar and flight deck. The Athena Combat System will be fitted; along with Air defence missiles including vertically launched MBDA Aster 30 and short-range Raytheon RIM-116 Rolling Airframe Missiles. Offensive armament will comprise Exocet MM40 Block 3 anti-ship missiles, a single 76 mm Super Rapid gun, and two 30 mm guns. The OPVs are understood to be based upon the Falaj-class patrol boats, Fincantieri built for the United Arab Emirates and fitted with: Athena combat system; Kronos radar; 76 mm guns; Exocet missiles; and, MBDA vertically launched Mica surface-to-air missiles. Qatar has provided a stable base for U.S. and Allied operations since 2005/6 and is also the home of the broadcaster Al Jazeera. The decision by the Qatar Emiri Naval Forces (QENF) to expand so significantly and to work with the Italian Navy has significant implications for the region.

USS BOXER HARRIERS JOIN THE FIGHT AGAINST ISSIS

U.S. Marine Corps AV-8B Harriers flying from USS BOXER (LHD 4) in the Arabian Gulf in June joined strike aircraft operating from USS HARRY S. TRUMAN (CVN 75) in the Mediterranean Sea June 16. This marked the first naval aviation combat strike missions of Operation Inherent Resolve (OIR) launched from USN warships operating from two different operational theatres. The Harriers are part of the Marine Medium Tiltrotor Squadron (VMM) 166, the aviation combat element of the 13th Marine Expeditionary Unit, embarked in the Boxer Amphibious Ready Group. Vice Adm. Kevin

Donegan, commander, U.S. Naval Forces Central Command reported:

'These missions from the flight decks of USS BOXER, like those from the USS HARRY S. TRUMAN, demonstrate the inherent flexibility of naval forces'.

The HARRY S. TRUMAN Carrier Strike Group began combat sorties from the eastern Mediterranean Sea June 3, in support of OIR over Syria and Iraq. The Boxer Amphibious Readiness Group (ARG) /13th MEU ARG arrived in the U.S. 5th Fleet (based in the Gulf with an area of operations (AoO) encompassing 2.5 million square miles of the Middle East; including the Arabian Gulf, Red Sea, Gulf of Oman, Gulf of Aden, Arabian Sea and parts of the Indian Ocean) April 5. Consisting of more than 4,500 Sailors and Marines, the Boxer ARG is composed of its command ship, amphibious assault ship USS BOXER (LHD 4), amphibious transport dock USS NEW ORLEANS (LPD 18) and amphibious dock landing ship USS HARPERS FERRY (LSD 49).

In an almost treasonous deal resulting from SDSR 2010, the UK sacked all its (recently modernised) GR-9 Harrier Fleet Air Arm / RAF Harrier pilots and sold the airframes to the USMC, for cannibalisation in support of its AV-8B Harriers. The UK will be without fixed wing air cover until at least the early 2020s, if and when the QE2 class is crewed and the Joint Strike Fighter (F-35) comes on line. The UK FAA and its Harrier aircraft

could have been saved to provide the RN (and RAF) with the skill sets necessary to support fixed wing aviation at sea over this period. Instead, the Libya campaign had to be fought applying Apache aircraft from the decks of HMS OCEAN (L12) – itself due to be de-commissioned in 2018. Leaving the UK without a carrier and fixed wing carrier aircraft (potential) for the first time in 100 years of aviation at sea. Even in 2011, Britain's GR-9 aircraft could still have been made available to RAAF / RAN for training purposes / trials from the decks of HMA Ships CANBERRA and ADELAIDE, to cover the stop-gap. But that would have taken imagination and thinking...

USS ZUMWALT HEADS FOR COMMISSIONING

The USS ZUMWALT (DDG 1000) left the Bath Iron Works in September 2016 heading for commissioning into the US Navy in Baltimore, this October.

The ship has a displacement of 14,798 tonnes; length 180 m; beam 24.6 m; draft 8.4 m. Fitted with two Rolls-Royce Marine Trent-30 gas turbines; driving Curtiss-Wright generators and emergency diesel generators, 78 MW (105,000 shp); two propellers driven by electric motors she has a top speed of over 30 knots (56 kmh). Her weapons include: MK 57 VLS modules, with a total of 80 launch cells; RIM-162 Evolved Sea Sparrow Missile (ESSM); Tactical Tomahawk; Vertical Launch Anti-Submarine Rocket (ASROC); 155 mm/62 caliber Advanced Gun System and two Mk 110 57 mm gun (CIGS). According to a local Lobster Fisherman, on his radar screen the 180m ship looked like a 10-15m fishing boat. The ship is estimated to be 50 times harder to detect than current warship designs, thanks to its angular shape and other design feature. Besides a shape designed to deflect enemy radar, the ship has a wave-piercing tumblehome hull, composite deckhouse, electric propulsion and new guns.

More tests are to be conducted prior to commissioning in October and the ship is expected to become fully operational in 2018. The ship is expected also to trial the BAES railgun; using electromagnetic energy to fire a shell weighing 10kg at up to 9000kmh over 160 km, with such force and accuracy to penetrate concrete reinforced bunkers and all conventional armour. Rear Admiral Matthew Klunder, head of

US Navy Littoral Combat Ship USS JACKSON (LCS 6) at Austal USA shipyards in Alabama.



USS ZUMWALT (DDG 1000) passes Fort Popham at the mouth of the Kennebec River March 2016.



the Office of Naval Research (ONR) reported that the railgun will be mounted on the third Zumwalt-class ship, LYNDON B. JOHNSON (DDG-1002), currently under construction at General Dynamics Bath Iron Works for delivery in 2018.

NEED TO ADDRESS FUNDAMENTAL CAPACITY ISSUES

The U.S. Government Accountability Office (GAO) has been studying the Littoral Combat Ship (LCS) lethality and survivability. Highly politically charged, the investigation is also one that pitches questions of capacity and quantity versus cost, quality and capability. The GAO has found that neither LCS variant with minor modifications met the Navy's desired capabilities without further tradeoffs. In late 2014, the USN recommended (and the Secretary of Defense approved) procuring both variants of a minor modified LCS, designated as being a Frigate. GAO has concluded that the planned frigate will not provide much greater capability in some areas than LCS and that some cost assumptions may have overstated affordability.

In February 2014, SECDEF cited concerns with the combat capabilities of the LCS – a small surface combatant (SSC), consisting of a ship and reconfigurable mission packages built by two shipyards as different variants, with 26 LCS delivered or under contract. The Secretary directed an assessment of alternatives for a SSC. The GAO has recommended that Congress should consider not funding any requested LCS in fiscal year 2017 and should consider requiring the Navy to revise its acquisition strategy for the frigate.

One of the driving factors for the LCS programme was to provide a capacity solution for Navy's shipbuilding. At \$AUD 7B a pop, the ZUMWALT class is proving expensive for the USN to support and maintain – given also many of its novel features – and is unlikely to fill the numbers gap. The LCS has been routinely attacked for being under-armoured and insufficiently lethal – raising questions as to its survivability. At the same time, at a much reduced cost of \$AUD 750M per ship, the LCS better meets the cost-capacity-capability trade-off than does the ZUMWALT class. It also provides the basis of a successful export

class, and faces much of the similar criticism labelled against the Oliver Hazard Perry class in the 1970s. A class that went on to form the backbone of many Navies; including the RAN. For every ZUMWALT, the USN could afford 9 or more LCS. Moreover, the LCS also comply with the non-attribitional network-maxim of 'being able to afford to lose (a ship, economically, politically and militarily); in order to use'. The loss of a single ZUMWALT would be a game changer – similar to the loss of a Carrier; whereas the loss of an LCS could be afforded without necessarily costing the operation. This is the basis of Versatile Modular Ships – which pushes the bounds still further and to include increased use of civil hulls (platforms and propulsion); integrated with naval weapons and communications systems. Using scale in numbers and size (tonnage), to provide improved protection for reduced-crew ships. The LCS with some changes – one of the two classes based upon Austal designs – suitably integrated could provide a suitable contender for Navy's future frigate (and OPV) programmes.

A critical issue facing all shipyards building USN ships – other than for LCS – is that they are outdated and highly inefficient and unproductive in comparison to shipyards in the rest of the world; including in the U.K. Lack of investment over many years has added to costs; so reducing numbers and putting additional pressure on the USN's strategic posture. The GAO has yet sufficiently to address this question and often appears to have been politically directed to question designs that do not match current industrial capacity or that have significant international content – not

in my back yard NIMBYism. This is also crippling USN thinking; just at a time when it needs to be designing and building afresh, at this late stage in a global turnaround when people and resources are cheap...

SUBMARINE LEAKS!

In a disturbing leak first revealed by The Australian Newspaper details of India's Scorpene submarines being built by DCNS appear to have been leaked. Indications suggest that the leak was by a former DCNS employer; working in South East Asia. Restricted details apparently including signature and performance characteristics that could be used to model the submarine for detection purposes. India has apparently decided not to proceed with an option for a further three boats – from the original 6 it contracted for. This may not be a direct result of the leak – since India's nuclear and SSBN programme has been developing strongly in recent years. Nonetheless, it is a blow to DCNS and to French prestige that is likely to have ramifications for the Shortfin Barracuda programme being designed for RAN and built in South Australia. Although not insurmountable, the key protocols protecting interfaces between French and U.S. supplied equipment will need safeguarding. And this is not simply an IT solution – but one at the heart of diplomatic and intelligence arrangements, between France and Australia and Australia and its Five Eyes partner, the U.S.

FRANCE ORDERS FOURTH B2M MULTIMISSION SHIP

The French Navy is planning to procure a fourth B2M (Batiment Multi-Missions) vessel from Kership, the joint venture between French shipbuilders DCNS and Piriou. B2M multimission ships are being deployed to support French overseas territories; including in the Caribbean and the Pacific.

DSTL LASER

The UK Defence Science and Technology Laboratory (Dstl) is seeking to select a consortium to take forward its solid-state high-power Laser Weapon System Demonstrator (LWSD). ■

The B2M (Bâtiment Multi-Mission) FS BOUGANVILLE (A622).



HOW THE U.S. NAVY, ROYAL AUSTRALIAN NAVY AND JAPANESE MARITIME SELF DEFENSE FORCE ARE POSTURING TO COUNTER THE PEOPLES LIBERATION ARMY (NAVY)

By Vice Adm. John Miller USN (Rtd.)

The July 2016 UN Tribunal ruling that China's excessive sovereignty claims in the South China Sea, and their aggressive attempts to enforce them, are violations of international law, serves as just one example of the challenges the major maritime powers in East Asia face in dealing with an increasingly aggressive and capable PLAN. The USN, RAN and JMSDF are each developing maritime strategy and force structure (to varying degrees) to address China's aggressive posture, but a more coordinated and comprehensive approach could yield better results.

BACKGROUND

Maritime disputes in East Asia are nothing new, but 70 years after the end of World War II and 20 years after implementation of the United Nations Convention on the Law of the Sea (UNCLOS), there are more disputes in the littorals than ever before [1]. China isn't involved in all of the disputes, most are resolved through negotiation or simply remain unresolved points of regional tension, and while it is unusual for any dispute to result in conflict, the possibility exists. U.S. interest in the vast majority of the East Pacific disputes is largely based on preserving the principles set forth in UNCLOS or in ensuring support for regional nations based on alliance obligations or emerging partnerships.

China's increasingly aggressive posture throughout the maritime in recent years has garnered the attention of every nation with oceanic interests in the economically important South China and East China Seas. In 2009, China submitted the now infamous nine-dash line map to the UN, claiming sovereignty over the islands in the South China Sea and

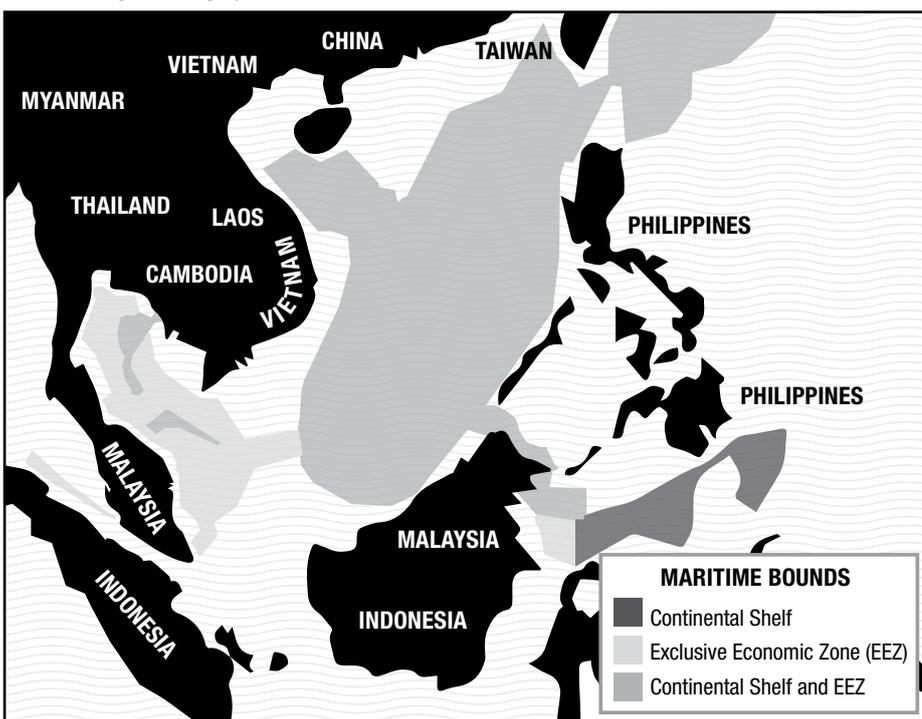
adjacent waters, seabed and subsoil [2]. The claim, based on a 1949 map produced by the nationalist Republic of China (ROC) contradicts many of the principles central to UNCLOS, which China signed in 1996, and has been robustly defended by the Chinese since their submission through a series of actions that defy their promise of a "peaceful rise [3, 4]". Chinese provocations include sending fishing vessels into the Exclusive Economic Zones of other countries, providing refuelling ships disguised as fishing trawlers, and sending Coast Guard vessels to rescue their poachers when they are detected [5].

In November 2013, China declared an Air Defence Identification Zone (ADIZ) in the East China Sea [6]. While countries routinely establish such zones in order to properly track and manage air traffic approaching national airspace, the timing and location of this particular ADIZ seemed especially aggressive. The motivation for the establishment of the zone with no official advanced notice could have been a deeply rooted sense of historical wrongdoing, could have been in response to perceived misbehaviour on the part of the Japanese with respect the Senkaku

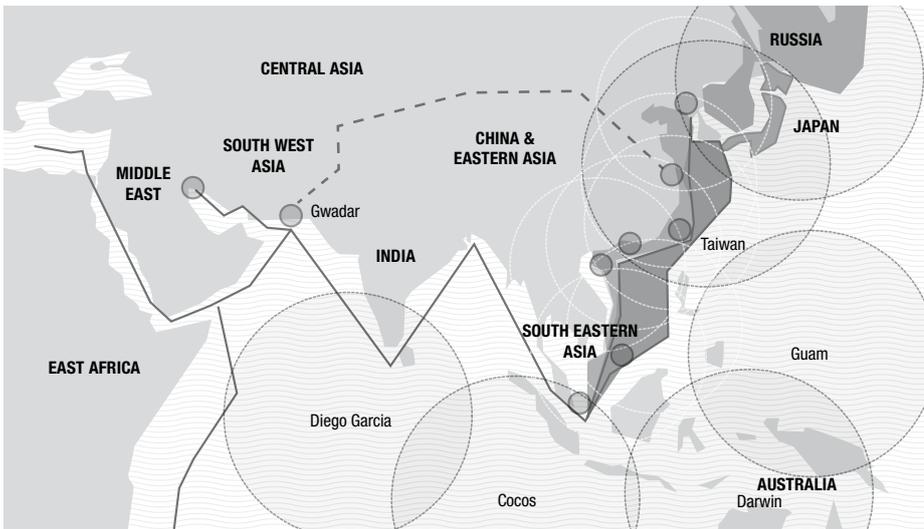
Islands, or could have been part of a larger pattern of behaviour by China to push U.S. and allied forces away from the near seas and China's core interests by exercising a variety of anti-access/area denial (A2/AD) measures and capabilities [7].

In June 2015, China announced that it had nearly completed the process of building seven new islands in the South China Sea by moving sediment from the seafloor to reefs. The Chinese are using these "terraformed" islands to establish ports, runways, radar sites and other military facilities hundreds of miles from their shores and in highly disputed areas such as Fiery Cross, Mischief and Subi Reefs [8]

While customary international law and UNCLOS underpin the recent Hague-based Permanent Court of Arbitration finding that China's nine-line claim and terraforming efforts had no legal basis, China's establishment of an ADIZ in the East China Sea and aggressive foreign policy in the region in recent years amplify concern that establishment



Maritime Bounds, South East Asia 2015 after CSIS.



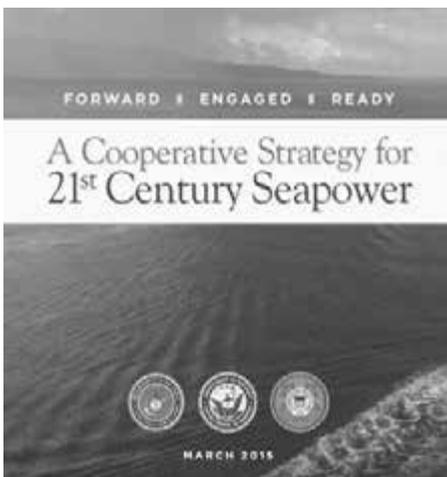
The Chinese Motte, Keep, Bailey, Great Sand Wall and Dragon's Spear Strategy. See *The NAVY Magazine Flash Traffic*, Vol. 78 No.1, Jan-Mar 2016, (RCB).

of an additional ADIZ in the South China Sea can't be far behind. China's questioning of the legitimacy of the court in advance of the ruling, almost immediate repudiation of the decision, and militarization of recently terraformed islands create concern that the People's Republic may be willing to settle disputes that cannot be won in international tribunals through the use of force – especially against less militarily capable regional nations – and especially if it can do so without creating significant disruption to regional economic activity or drawing the ire of the U.S. or major regional maritime powers.

A Cooperative Strategy for 21st Century Seapower (CS-21R), America's guiding maritime strategic document, revised in March 2015, stresses the need to maintain access in all domains (sea, air, land, space, cyberspace, and the electromagnetic spectrum) in order to meet national security objectives [9]. Understanding that U.S. and partner nations place value on the importance of assured access to all domains of the global commons and that China seems determined, through actions and deeds, to limit or deny access to portions of the global commons it believes it has special rights to, has set the stage for current and future tensions.

THE CHINESE MILITARY BUILDUP

If an aggressive foreign policy, represented by the establishment of the East China Sea ADIZ and terraforming and then militarizing disputed reefs are two legs of a Chinese A2/AD strategy stool, their recent military buildup represents the third. There are a number of ways to measure the direction – and therefore the deterrent value – of a nation's military: the total amount spent on the military, money spent as a percentage of GDP; the total size of the force; growth relative to potential adversaries; or the ability to dominate the essential domains via a combination of capability and capacity. By almost any measure, from 2008 to 2015, China's military spending has seen robust growth with requisite increases in



A Cooperative Strategy for 21st Century Seapower.

numbers of forces and the capability of those forces. China currently spends more on defence than Japan, South Korea, the Philippines and Vietnam combined. Its spending has remained at about 2 percent of GDP – while its GDP has sky rocketed. Japanese spending has remained at about 1 percent of GDP during a period of relatively stagnant growth¹⁰ and Australia is committed to reaching 2 percent of GDP by 2020.¹¹ Only the United States now spends more on defence than China [12].

China seems to be investing wisely in building A2/AD capability and capacity. DoD's Annual Report to Congress on Military and Security Developments Involving the People's Republic of China 2016 reported progress in every domain. China has fielded its first aircraft carrier, reorganized its forces to make them more efficient and more "joint," improved its ballistic missiles, matured its space program, and continued to modernize its

surface fleets, air and missile defences and ground forces [13].

China also adjusted its strategic guidance in 2015, in much the same way CS-21R did for American maritime forces, calling on Chinese forces to be prepared to execute eight strategic tasks, including space and cyberspace domain awareness, humanitarian assistance and disaster relief, security cooperation, and rights and interest protection issues, in addition to the more traditional roles of the PLA [14].

The Chinese Communist Party (CCP) distilled their major strategic objectives into President Xi Jinping's "China Dream" of national rejuvenation. That dream includes seeking ways to leverage China's growing diplomatic informational, military and economic clout into establishing regional pre-eminence and expanding international influence, without putting at risk the regional peace that has been essential to economic development and regime stability [15].

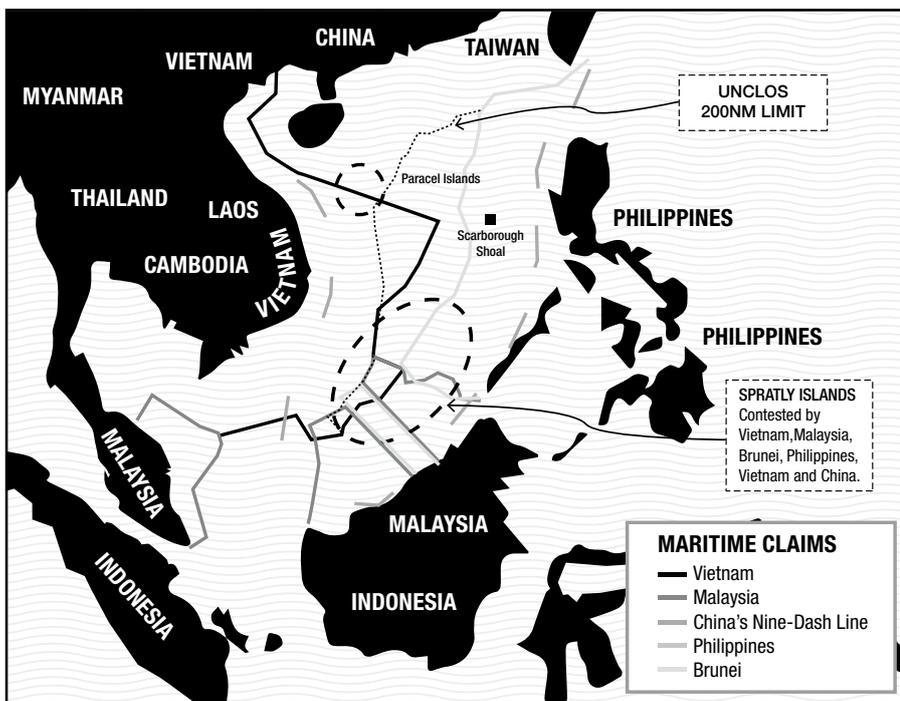
PREPARING FOR THE FUTURE – THE ROLE OF THE MAJOR MARITIME POWERS

Australia

Australia's 2016 Department of Defence White Paper (DWP) acknowledges that the "roles of the United States and China and the relationship between them will continue to be the most strategically important factors in the Indo-Pacific region to 2035....The United States will remain Australia's most important strategic partner... [and that] Australia will seek to broaden and deepen our alliance with the United States" [16].

The DWP goes on to acknowledge the benefit of a rules-based *global* order for ensuring Australia's access to its trading partners, and that the access is underpinned by a strong U.S regional and *global* presence, and active engagement by Australia and other *regional* partners [17]. The clear point being that any failure to establish rules-based order in the region will have global consequences.

Despite considerable Chinese advances in the maritime since the first Australian DWP in 2009, the 2016 version was the first of the series to not specifically recommend a maritime strategy as key to overall strategic success [18]. The apparent oversight notwithstanding, both the DWP language and ADF procurement plans make it clear that sustained investment in the maritime will be needed to ensure a rules-based global order, and is a priority.



China Claims 'have no Legal Basis' - chart after Wall Street Journal July 2016.

Australia intends to invest in a future submarine program that is the largest defense program in their history, they will introduce nine new frigates to replace the aging Anzac class starting in the late 2020s, new off shore patrol vessels will begin to enter service in the early 2020s, and a total of 15 P-8s are slated to be in service by the late 2020s [19]

Similar investments are being made to ensure access across all domains. Twelve E/A-18 Growler electronic attack aircraft are scheduled to enter service beginning in 2018, F-35 Joint Strike Fighters will follow shortly thereafter, ground based active electronically scanned array radars that will improve Australia's air and space access should begin entering service in 2020, and an improved air defense system is scheduled to enter service in the mid-2020s [20].

The DWP addresses both the strategy and the procurement of weapon systems to ensure access to all domains so that Australia continues to meet national security objectives. It is clear that Australia views the U.S. as a key partner, acknowledges the friction between the U.S. and China, and stresses the importance of a rules-based global order.

Japan

The opening paragraph of the Japanese 2015 Defense White Paper asserts that China carries out dangerous acts that could cause unintended consequences, and goes on to bemoan China's lack of transparency in its defence spending.²¹ It is clear from the very beginning of the document that concern about Chinese intentions are at the forefront of Japanese strategic thought.

Not unlike Australia, part of Japanese national security strategy includes maintaining and protecting the international order based on rules and universal values.²² It comes as no surprise then that in carrying out this strategy, Japan intends to rely on their own efforts, strengthening the U.S./Japanese strategic relationship, and an active security cooperation effort with regional partners [23].

An important development in Japanese policy occurred in September 2015 when the Diet voted to reinterpret Article 9 of their post-World War II constitution so as to allow Japanese Self Defense Forces to defend its allies in limited fashion during conflicts abroad [24]. This significant policy shift allows Japan to take a more proactive role in assuring all domain

access and makes it a better partner for the U.S. and for regional partners. Significantly, it also opens the door to build weapon systems to meet this new "requirement."

Japan's defence spending has remained relatively steady over the last decade at about 1 percent of GDP. Compared to China, where spending relative to GDP and GDP itself have both grown substantially, Japanese defence spending is relatively modest. This disparity is the driver in evolving historic security guarantee relationships with the U.S. and other regional partners and a driver in defence procurement decision making. Japan is making modest, but effective force structure improvements across the domains. It is purchasing F-35 Joint Strike Fighters, additional Aegis class cruisers, improving integrated air defence, acquiring additional submarines and modernizing existing underwater forces, and improving their maritime patrol capability [25]. They are reorganizing space and intelligence organizations and reviewing cyber and electromagnetic capabilities and vulnerabilities [26].

Japan has developed a National Security Strategy (NSS) that specifies defence policy, security cooperation and diplomatic initiatives necessary to address challenges at both the *global* and *regional* level in order to ensure the security and stability necessary for economic success. The NSS drives the basic policies for Japan's future defence, the role of the defence forces and the requirements for defence equipment.

The United States

CS-21R provides the strategic framework and the national imperative to attain access, when necessary, to all domains both regionally and on a global basis. A complimentary document, *A Design for Maintaining Maritime Superiority*, released in January 2016, highlights four lines of effort (LOE):

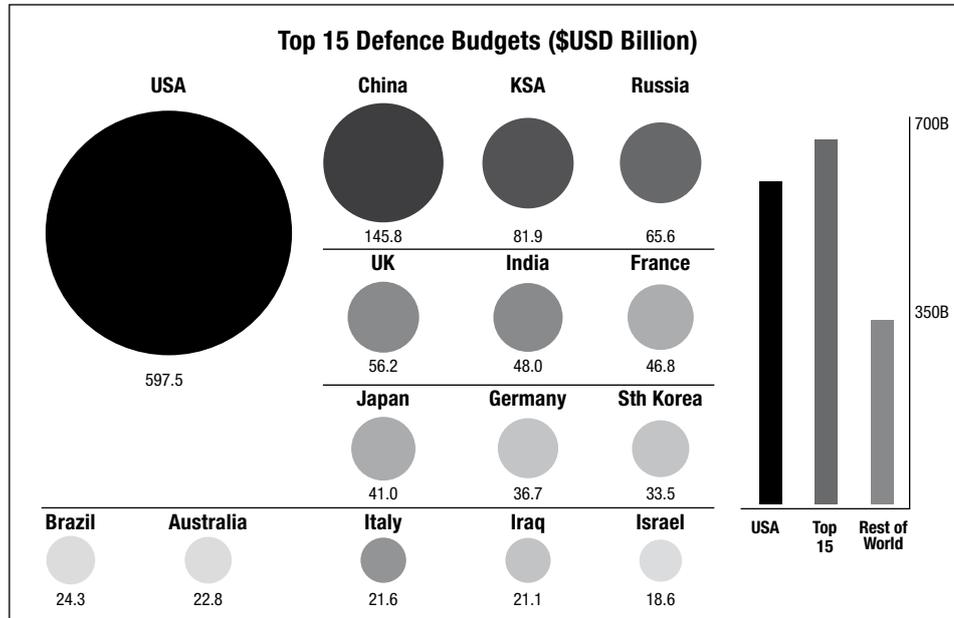
- Strengthen Naval Power from the Sea
- Accelerate High Velocity Learning
- Strengthen our Navy Team for the Future
- Expand and Strengthen our Network of Partners

While all four LOEs have applicability to U.S. partner nations, strengthening naval power from the sea and expanding and strengthening the network of partners are clearly of primary importance and apply directly to the strategic goals of Australia and Japan. Both Japan and Australia have formal security agreements with the United States, so it should come as no surprise that all three countries have complimentary national security strategies and interoperable military equipment [27].

For the last several years, the Air-Sea Battle Concept (now named Joint Concept for Access and Manoeuvre in the Global Commons – JAM-GC) has helped inform U.S. military efforts to develop assured access weapon systems [28]. Development of the Joint Strike Fighter, Virginia class submarines and Ohio class replacement stand out as examples of high end assured access weapon systems. Improvements to Aegis cruisers and destroyers, Super Hornets, Growlers, and Strike Eagles, early warning platforms, C4ISR systems, integrated air and missile defence, and manned and unmanned maritime patrol – all aimed at being interoperable – serve as superb examples of how alliances can work together toward common goals.

WAY AHEAD

Australia, Japan and the U.S. are aligned strategically and well postured to deal with a China that has as a stated goal the reestablishment of pre-eminence in the region. Sharing common views of all domain access, rules-based order and the value of partnerships, they have each developed complimentary strategies that allow engagement with each other and with other regional nations to achieve national security goals. Given the tremendous economic interests at stake in the region, one would expect no less.



Top 15 Defence Budgets - source International Institute for Strategic Studies (IISS) 2016 Military Balance.

While each of the three nations are making great efforts to develop force structure by which they can ensure successful attainment of the strategy, difficult economic times, competing demands for resources and a determined Chinese effort to modernize and expand its military all combine to create a challenge. While the U.S. spends more on defence than any other nation, it has global responsibilities, including continuing conflict in Southwest Asia and emerging challenges in the North Atlantic and Mediterranean from the Russians. Japan's contribution will likely remain at approximately 1 percent of a rather stagnant GDP because too much more creates concern both at home and among neighbouring countries who well remember its Imperial past [29]. It's also important to note that U.S. spending on the defence of Japan equates to about an additional ten percent added to their budget [30], [31] Australia's programs are ambitious, especially the new submarine program, and

rely on a commitment to defence spending slightly higher than has been recently supported.

Success needs more than just good strategy and superior weapons – it also requires trained and ready forces who know how to operate together. Fortunately, the U.S. has had formal agreements with Australia since the 1950's and with Japan since the 1960's, so mature exercise programs are in place [32]. What might be useful to consider, and what might be a clear message of resolve to China is a new defence cooperation agreement between the three major maritime powers in the region – a formal trilateral agreement instead of a series of bilateral agreements.

It's also useful to consider the role of other regional nations who stand to lose to aggressive Chinese actions. In May 2016, the U.S. lifted its arms embargo on Viet Nam – a move many would have thought unthinkable just a few years ago [33]. The Philippines continue to expand their cooperation with the U.S. and they were the ones who challenged the Chinese in the international court.

Thinking more broadly, cooperation could be as large as Pacific Command Commander Admiral Harry Harris envisions – in May 2016 he proposed revival of a decade old informal alliance that included Australia, Japan, the U.S. and India [34]. That informal alliance was broken because of Chinese objections... [35]

There is no doubt China will continue its military build-up with alacrity and that the three major maritime powers will

need to work hard to assure all domain access and rule-based order. Continued cooperation will be vital; adding additional partners will be even more helpful.

Vice Adm. John Miller USN (Ret) was commissioned on graduation from the United States Naval Academy in 1979. He accumulated more than 3,500 flight hours and 1,000 carrier-arrested landings in the F-14 Tomcat flying off JOHN F. KENNEDY, USS NIMITZ (CVN 68), USS THEODORE ROOSEVELT (CVN 71), USS GEORGE WASHINGTON (CVN 73), USS KITTY HAWK (CV 63) and Constellation. He left command of the Naval Strike and Air Warfare Center in October 2011 to serve as the special assistant to the deputy chief of naval operations for Operations, Plans and Strategy (N3/N5) in Washington D.C., before reporting as commander, U.S. Naval Forces Central Command/United States 5th Fleet/Combined Maritime Forces (based in Bahrain) and retiring in November 2015. ■

FOOTNOTES

- <https://amti.csis.org/maritime-disputes/>
- <http://qz.com/705223/where-exactly-did-chinas-nine-dash-line-in-the-south-china-sea-come-from/>
- ibid
- <http://www.wsj.com/articles/south-china-sea-verdict-1468343029>
- <http://qz.com/705223/where-exactly-did-chinas-nine-dash-line-in-the-south-china-sea-come-from/>
- <http://nationalinterest.org/feature/chinas-east-china-sea-adiz-gamble-past-present-south-china-13150>
- ibid
- http://www.nytimes.com/interactive/2015/07/30/world/asia/what-china-has-been-building-in-the-south-china-sea-2016.html?_r=0
- https://www.uscg.mil/seniorleadership/DOCS/CS21R_Final.pdf
- <http://chinapower.csis.org/military-spending/>
- <http://www.defence.gov.au/whitepaper/Docs/2016-Defence-White-Paper.pdf>
- ibid
- <http://www.defence.gov/Portals/1/Documents/pubs/2016%20China%20Military%20Power%20Report.pdf>
- ibid p. 43.
- ibid p. 41.
- <http://www.defence.gov.au/whitepaper/Docs/2016-Defence-White-Paper.pdf> p.17.
- ibid p. 16.
- <http://www.regionalsecurity.org.au/resources/Documents/SC%2012-1%20Corder.pdf> p.3.
- <http://www.defence.gov.au/Whitepaper/AtAGlance/Maritime-Ops.asp>
- ibid
- http://www.mod.go.jp/e/pub/w_paper/pdf/2015/DOJ2015_Foreword_web.pdf
- http://www.mod.go.jp/e/pub/w_paper/pdf/2015/DOJ2015_Digest_part2_web.pdf
- ibid
- <http://www.cnn.com/2015/09/18/asia/japan-military-constitution/>
- <http://www.washingtontimes.com/news/2015/mar/16/japan-builds-military-forces-counter-chinese-threa/>
- http://www.mod.go.jp/e/pub/w_paper/pdf/2015/DOJ2015_Digest_part2_web.pdf
- <http://www.state.gov/s/l/treaty/collectivedefense/>
- <https://news.usni.org/2015/01/20/pentagon-drops-air-sea-battle-name-concept-lives>
- <http://www.wsj.com/articles/u-s-backs-japans-new-military-expansion-but-china-concerned-1442644956>
- <http://www.wsj.com/articles/q-a-how-much-do-u-s-military-bases-in-japan-and-korea-cost-1461822624>
- <http://www.usatoday.com/story/news/world/2016/03/29/japan-government-defense-budget-economic-recovery/82376314/>
- <http://www.state.gov/s/l/treaty/collectivedefense/>
- <https://www.washingtonpost.com/news/post-politics/wp/2016/05/23/in-historic-move-u-s-lifts-arms-sales-embargo-to-vietnam/>
- http://www.nytimes.com/2016/03/03/world/asia/us-proposes-india-naval-coalition-balance-china-expansion.html?_r=0
- ibid

Figures:

- Figure 1: see CSIS webpage: <https://amti.csis.org/maritime-disputes/>
 Figure 3: see USCG: https://www.uscg.mil/seniorleadership/DOCS/CS21R_Final.pdf
 Figure 4: see WSJ: <http://www.wsj.com/articles/chinas-claim-to-most-of-south-china-sea-has-no-legal-basis-court-says-1468315137>
 Figure 5: see CSIS webpage: <http://chinapower.csis.org/military-spending/>

FORMATION OF NAVY PART I – THE ISRAELI DEFENCE FORCE NAVY, 1939-1959

By Rear Admiral Nir Maor IDF Navy (Rtd.)

This is the remarkable story of some of the major events behind the inception of the Israeli Defence Force (IDF) Navy, from the initial conception of a Jewish homeland in Israel at the end of the 19th Century; through to the birth of the State of Israel, under fire, in 1948. Israel is uniquely placed and dependent upon the sea. Something its founding parents did not appreciate fully until shortly before the ‘War of Independence’, following the departure of the British. Needing to operate in two seas, the Mediterranean and the Red Sea, the IDF Navy – Israel’s Cinderella Service – has always had to strategically balance both capability and capacity; to face both East and West and be capable of Blue Water and Littoral operations, far from its coast. Many of its early achievements are unknown in the West. Part I, by Rear Admiral Nir Maor IDF Navy (rtd.), the Director of the Clandestine Immigration and Navy Museum, examines the Israeli Navy, from 1939 to 1959.



Clandestine Immigration Operations and Jewish Refugees coming ashore near Haifa, circa 1946.

BIRTH UNDER FIRE

Zionism, towards the end of the 19th Century, rekindled the consciousness and desire amongst the Jewish Diaspora spread across the world, including Australia [1], for a national homeland. It incorporated two strands of thinking: the nurturing and enabling of the networked Diaspora to sustain the ideas, trusts and beliefs of Judaism in adversity; and, a return to the historical lands of Israel. The significant connecting networks and enabler then, as it is today – through high-speed maritime cyber cables – was the maritime. It was inevitable, therefore, that at some stage both Diaspora and State would coalesce about the need for Navy.

Jews returned to the Land of Israel in slow, small waves, from the beginning of the 20th Century. At that time, the Ottoman Empire ruled the country. Following World War I, and the defeat of the Ottoman Empire (also involving significant numbers of Australian / New Zealand (ANZAC) Troops and the famous Charge of the 4th Light Horse Brigade at Beersheba in October 1917), the British took over. The British Mandate did not favour the uncontrolled immigration to the ‘Holy Land’ and increasingly Jews had to return to their land stealthily, usually making the crossing via boats and the sea. These Clandestine Immigration Operations (CIO), nurtured the roots of what became the IDF Navy. Practical and resourceful people within the Jewish population and in the Land of Israel started to buy and renovate ships and convert them to carry immigrants. Seamanship was a lost art and discipline for the Jewish people, who had had no access or need for these skills since the destruction of the second temple, about

2,000 years ago. Ship navigation and ship to objective manoeuvring (STOM) was even newer and stranger to the local Jewish population, which forced them to engage the services of professional seamen (Italian, Greek and others) to command and crew these first ships.

About 140 CIO ships (with 1000s of immigrants) sailed to the shores of Israel from 1934 to 1948; frequently having to evade the British Royal Navy, still then a global maritime power. The bridges were manned by the hired captains; while CIO commanders were appointed by the organizing committees. The commanders were responsible for supervising the sailing route and also absorbing a field of knowledge and endeavour, that hitherto was completely strange to them: navigation and seamanship.

After WWII, and in support of clandestine immigration, Hebrew movements inside (and outside) Israel initiated sabotage actions against both British Royal Navy patrol ships and deportation vessels being used to return Jewish refugees. Activists involved in these operations gained experience in long-distance swimming, diving, and attaching magnetic mines. They went on to form the Israeli Marine Commando several years later.

END OF MANDATE

The British Mandate ended in the summer of 1948, upon the November 1947 adoption of UNSC Resolution 181 (the Partition Resolution), which divided Britain’s Palestinian mandate into Jewish and Arab states. The division (or Partition) was unacceptable to the Arab world and a war, called by the Jews ‘The War of Independence’ began, as the British departed. The Jewish population in Israel was compelled to defend itself



Paul Shulman Shaul Ben-Zvi

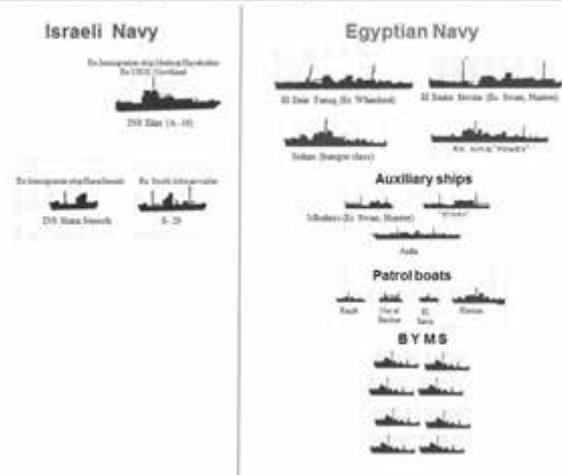


Paul Shulman with Israel's first Prime Minister, David Ben-Gurion

Paul Shulman, described as the John Paul Jones of the Israeli Navy, graduated from U.S. Naval Academy at Annapolis and fought in the Pacific theatre, serving in destroyers – promoted to Lieutenant, he was the First Lieutenant of his ship by the end of the war. After the bombing of Hiroshima and Japan's surrender, Shulman completed his naval service and returned to Connecticut. He was working in New York for an import-export house when he was approached by Teddy Kollek (future Mayor of Jerusalem), an Austrian-born agent of the Haganah, the official armed forces of the Jewish inhabitants in Palestine. Kolleck asked Shulman to use his naval expertise to help the Haganah buy ships to run refugees to Palestine. Shulman ran the F & B Shipping Company – a front company, through which the Haganah purchased older American vessels for outfitting in Europe, before taking on Jewish refugees and running the British blockade. Shulman told other shipping agents that the initials FB represented the motto 'far better'. In fact they stood for a gesture of Jewish defiance, "F... Britain."

Shulman arrived in the newly created State of Israel in May 1948, just as it was being invaded by five Arab armies. Ben Gurion, whom he had met at Stamford a decade earlier, turned to him to organize and command the fledgling navy. Initially, because Shulman spoke no Hebrew, he encountered resistance from Sabra Israelis (any Jew born in the Palestine Mandate, a term that began to be used in the 1930s) emerged who found it difficult to take orders from an American or anyone who did not look like or speak like them. Despite these difficulties, Shulman set up a training program, established precedents and created a disciplined 'ship-shape' organization. Under his Command, the Navy, which consisted of some of the same old beat-up ships that were used for Aliyah Bet (the operation name given to the illegal immigration by Jews), routed the Egyptians from Israel's shore, and sunk the Egyptian flagship, the EMIR FAROUK. He also commanded the capture of Ein Gedi, which secured Israel's hold of the Dead Sea's south-western coast.

Navy vs. Navy May 1948



against regular armies – formed and sponsored largely by the British – invading the country from the north, the east and the south. Although the Jewish population had foreseen this war and tried to avoid it, it was nonetheless preparing for such a confrontation for several years beforehand. Forces had been built and organised – including a clandestine Air Force – but these concepts not include a Navy...

Several months before the war started, the supreme commanders realized that they erred and issued the order to establish a Navy. The clandestine immigration operation commanders, who had gained some experience in seamanship, were naturally appointed as the first officers of the Navy. They were joined by Jewish and non-Jewish volunteers, many who had who served in the Allied navies (US, UK, Canadian and British) during World War II.

These volunteers filled the huge professional knowledge gaps of CIO commanders on the subjects of naval combat, STOM and operating naval ships in both offense and defence. Yet, even after assembling commanders and crews, Israel still did not have any ships...



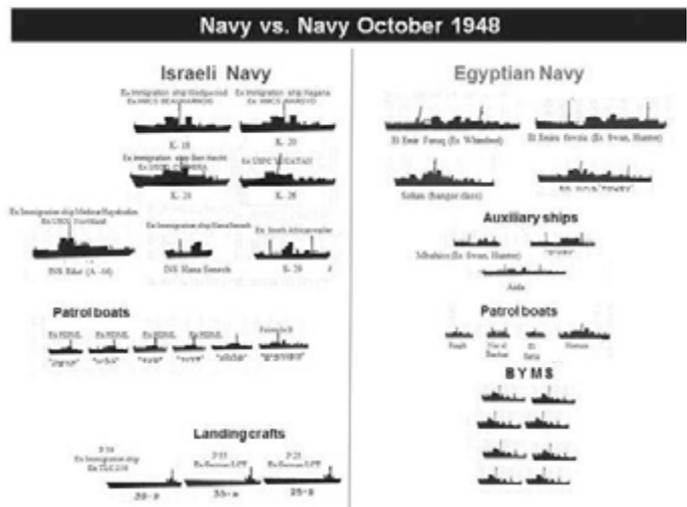
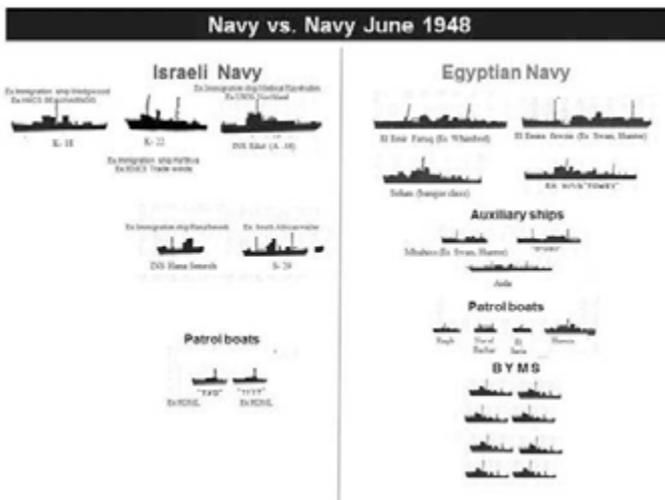
17031948 (17 March 1948)

Re: ORDER ESTABLISHING THE NAVAL SERVICE

1. High Command has decided to establish a full Naval Service as an integral part of the Defense Force.
2. The Naval Service is directly subordinated to Supreme Command.
3. The Naval Service is to be configured from four groups: marine units of the Palmach¹; Israeli volunteers who served during WWII in the British Navy; from members of the maritime unions; and, from seafaring Jews drawn from any other group or sector.
4. To reconstitute and amalgamate the marine units of the Palmach with other maritime elements, the Chairman of the Defense Committee has appointed Comrade Gershon Zak² to oversee all construction activity and to lead the Service.

¹ The Palmach (Hebrew: פלוגת מחצ'ט, acronym for Plugot Mahatz) was the elite fighting force of the Haganah, the underground army of the Yishuv (Jewish community) established on 15 May 1941 during the period of the British Palestinian Mandate.

² Comrade Gershon had not even seen the sea before his nomination!



The War of Independence - Improvised Army Howitzer's (left) providing Naval Gun Fire Support (NGS), right.

Rapidly, abandoned and rusting immigration ships captured by the British during the clandestine immigration period and moored at the end of the breakwater of Haifa port, were commissioned into Navy. These vessels (of many different types), were quickly painted grey and became Navy's first ships. Ropes were used to lash Spanish War Howitzer field guns to the decks and rapidly deployed to support the Army.

The first operation of the Navy was conducted according to the exact pattern of an immigration operation. A leased ship carried scores of fighters to cut-off a maritime logistics supply route being used by the Arab armies invading from the north of Israel. The ship came close to its destination; a rope was tied to the shore and the fighters alighted along the rope. At this stage, an enemy patrol opened fire and the fighters hurried back to the ship...

At the same time, a former clandestine immigration ship, painted grey with a couple of machine-guns and a dummy gun was sent to protect Tel Aviv. According to the CIO tradition, two commanders – an operational commander and a professional captain – fought the ship together. The ship encountered an Egyptian invasion force opposite Tel Aviv. A prolonged struggle ensued and although no vessel was hit or injuries recorded, determined resistance by the Navy and an aircraft from IDF Air Force (subsequently shot down) caused the Egyptian Navy and its land forces to retreat and return to its base.

Nevertheless, these initial battles had little bearing on the Navy's immediate future. During the following months, the Navy received additional converted ex immigration ships – and its performance improved, while its participation safeguarding the Army's maritime flanks increased.

The Navy also purchased explosive boats from scrap yards in Italy and

ordered the formation of the marine commando unit (Unit 13) under the command of Yohai Ben-Nun – from sailors who had gained experience sabotaging the British deportation ships to crew them.

In October 1948, just before the end of the war, Paul Shulman (a Jewish American volunteer and ex USN Lieutenant Command) led an Israeli surface task force (Operation Yoav) against the Egyptian Navy, then operating off Gaza and heading towards Tel Aviv. The Task Force comprised 4 ex-Immigration ships: INS WEDGWOOD (K-18, ex HMCS BEAUHARNOIS), INS HAGANAH (K-20, ex HMCS NARSYD) – both Flower Class corvettes – INS MA' OZ (K-24, ex USCG CYTHERA, previously Immigration Ship Ben Hecht, a commandeered German yacht) and INS NOGA (K-26, ex USPC YUKATAN). One of the ships, INS MA' OZ, was loaded with 3 explosive boats and one rescue boat, under the command of Yohai Ben-Nun. Paul Shulman intended originally to 'cross the T' and attack the Egyptian TF (then loitering 12 Nautical miles south of Tel Aviv) directly, using the locally fitted howitzers on board his ships. Yohai Ben-Nun persuaded him otherwise and argued that an attack should be mounted by the e-Boats. Ben-Nun then took command of his little force from the third e-boat, which acted also as backup. Under cover of nightfall, he saw two of his e-boats heading for the EMIR FAROUK, the flagship of the Egyptian Navy. As the Egyptians opened fire he realised that Boats 1 and 2 were not engaging the escort. In the confusion, Ben-Nun realised that he would have to attack the escort directly, and took his e-boat in, badly damaging her and preventing the landing of troops and equipment ashore. The combined operation, under both Paul Shulman and Yohai Ben-Nun, significantly shaped the Israeli Navy's emerging doctrine for the use of larger numbers of smaller vessels, networked to provide asymmetric directed capability against larger naval forces and ships.

Navy vs. Navy January 1949



CONVENTIONAL RETURNS

Only after the War of Independence, did the Navy purchase real naval ships, three outdated (River class) Canadian frigates. Gunnery, ballistics, search and patrol, were all entirely new fields of knowledge, which commands and crews had to learn from scratch. In practice, the Navy was manned by a mixture of CIO personnel, amateur seamen, Jewish and other volunteers. Consolidation of working patterns and procedures did



The Days of the Frigates (K32 - INS Miznak - ExHMCS HALLOWELL River class).

not come easily for the Navy. As a result of both the Navy's genesis and unique maritime context, for the next decade the Navy and IDF contended with language difficulties between crews drawn from across the globe.

Most of the combat equipment was purchased in Italy, which suffered from the typical post war chaos, caused following a prolonged war. The different weapons buyers took advantage of this chaos and the Navy began to develop initially on an ad-hoc basis, largely out-of-class.

Additionally, the purchased armament was not modern with some coming from World War I and II surpluses and even from the end of the 19th century.

As is customary in navies throughout the world, the young Navy undertook the delicate task of showing the flag and projecting influence beyond the shores of Israel. This was particularly important – then as it is today – when Israel is often faced with hostile neighbours and has to keep open its sea lines of communication (SLOC), to Europe and the rest of the world. The young navy was exposed to navies with long and rich traditions and strove from the very beginning to absorb and learn as much as possible, quickly.

Yohai Ben-Nun

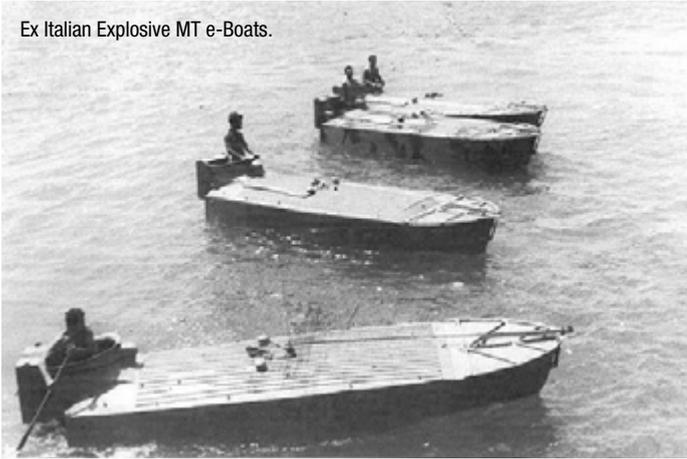


Born in Haifa, Yohai Ben-Nun was raised in Jerusalem and joined the Palmach (the elite fighting force of the Haganah, the underground army of the Yishuv (Jewish community)) in 1941. Rising to the rank of a squad leader, in 1944 he joined the Pal-Yam, the maritime arm of the Palmach. In a covert operation in 1945, he sank two British patrol boats. At the outbreak of the War of Independence, he founded Navy Commando, Unit (Shayetet) 13, the Israel Navy marine commandoes. He commanded the force which sank the Egyptian Navy flagship, the EMIR FAROUK, during Operation Yoav, for which he was awarded the Hero of Israel decoration (which became the Medal of Valour).

During Operation Yoav (against an Egyptian Task Force supporting land operations south of Tel Aviv and Gaza), Yohai Ben-Nun persuaded Ben Shulman, the Task Force Commander, to allow him to mount an attack using three e-Boats carried by the TF. He took command of his little force from the third e-boat, which acted also as backup. Under cover of nightfall, he saw two of the e-boats heading for the EMIR FAROUK, the flagship of the Egyptian Navy. As the Egyptians opened fire he realised that Boats 1 and 2 had been unable to engage the Egyptian escort. So he took the third e-Boat in himself, badly damaging the minesweeper escorting troops and equipment to be landed in the combat area. The combined operation, commanded by Paul Shulman, significantly shaped the Israeli Navy's emerging doctrine for the use of larger numbers of smaller vessels, networked to provide asymmetric directed capability against larger naval forces and ships.

Ben-Nun continued to serve in the Israeli Navy after the War of Independence. In the 1956 Sinai War (Operation Muskateer), he served as the commander of the INS YAFO (Ex HMS ZODIAC), taking part in the capture of an Egyptian frigate, IBRAHIM-EL-AWAL (Ex HMS MENDIP). After the war, he returned to command Navy Commando 13, and was appointed Commander of the Israeli Navy in 1960. Retiring in 1966, he reenlisted during the Six-Day War and served in naval operations against Syrian ports.

Ex Italian Explosive MT e-Boats.



CHANGE SHAPING

At the beginning of the 1950s, several torpedo boats were added to the fleet and the Navy both dared to change and adopt new-old combined battle tactics; including, scenarios in which torpedo boats attack, covered by the gunnery of the frigates. At the same time, the marine commando increases its scope and abilities and an Italian made Maile unit is added to the MT explosive boat. The proven success of the marine commandoes during sabotage actions against British deportation ships and in sinking the Egyptian flag ship in 1948, won (and still wins) a special status for the Navy Commando (Unit 13), to this day.

During the 1950s, neighbouring countries such as Egypt strengthened their relations with the Soviet Block. Which, in turn provided for a massive military rearmament – including of the Egyptian Navy. The Israeli Navy attempted to maintain the balance, but the main IDF effort was directed, first and foremost, inwards towards the Army and Air Force. Although the Navy is an integral part of the IDF, the IDF had not yet recognised the importance of or the need for a Navy in providing an existential defence (of its land-locked territories) and deterrence against those seeking to control its SLOC.

The Navy budget was based on a compromise, part of its funding coming from the wider defence budget, and some elements from the Navy's own smaller and discrete funding lines. To accommodate its plans and to purchase new vessels, the Navy had to decrease its expenses on

manpower, infrastructure and training and economise on fitting out the Navy, in order to purchase two Z class destroyers (K- 40, INS EILAT (ex HMS ZEALOUS) and K- 42, INS YAFO (ex HMS ZODIAC)), surplus to the Royal British Navy. Even as the crews were being trained and before the ships were fully manned and fighting instructions written, the Navy was thrown into the Sinai war which, from Israel's perspective, was a small but very successful part of Operation Musketeer (involving British, French and Israeli forces) – known, worldwide, as the Suez Crisis.

An Egyptian Hunt class Frigate (IBRAHIM-EL-AWAL (ex HMS MENDIP (L60); ex ROC LIN FU)) succeeded in stealthily reaching the coast of Israel and shelling the Port of Haifa. Both explosions ashore and the artillery flashes from the unidentified target (which had sailed in the last few hours along the coast), indicated it was an enemy ship. Despite there also being a French Frigate at anchor in Haifa Bay, two Israel Navy destroyers patrolling 30nm west of Haifa closed with the hostile ship; engaged with and ultimately defeated it. The Egyptian warship hoisted the white flag and surrendered to the IDF Navy. The Navy, which entered the war with only two major destroyers in its Fleet, won a third major warship that would join the Navy as soon it was repaired.

The invasion of the Sinai Peninsula (which was an integral part of the Operation Musketeer) was performed by three land task forces. Operating

Israeli Navy LCMs in action Sinai during Operation Musketeer, 1956.



from Eilat in the Red Sea, the Navy provided outflanking operations – using a small force of LCMs, which landed supplies and reinforcements in several beach heads along the route of the forces speeding south.

Although for the British, the Suez Crisis was a disaster [2], placing it



Days of the Destroyers (Towing the Egyptian Ship IBRAHIM-EL-AWAL (ex HMS MENDIP ex ROC (China) Ship LIN FU) into Haifa Harbour).

at odds with the US and the US Navy, there were a number of successes. Operation Musketeer represented the first helicopter-borne, carrier amphibious assault (from HMS OCEAN (R68) a Colossus Class Carrier) – and was highly successful in its capture of the Suez Canal. For the IDF Navy, it represented successful combined and joint coalition operations – with France and the UK – along two major flanks, in both the Mediterranean and Red Sea Theatres.

FUTURE DESIGNS

At the beginning, the Navy did not have submarines and very few in or outside the navy understood the need for them, or the vital role they could play in both deterrence and offensive sea-control and denial operations. Submarines were added to the Navy's order of battle only after about a decade of operations. The concept was almost entirely the initiative of an individual with a vision – a charismatic Lieutenant Commander, Yosale Dror, known for his daring diving operations during the struggle against the British, and one of the founders of the Marine Commandos. Despite considerable opposition from within Navy and IDF, it was his foresight that led to the creation of the Israeli Navy, Submarine service. The Chief of Navy Operations (CNO) at the time defined the feasibility of operating submarines in the Israeli Navy as a

The Submarine Fantasy (S Class Submarine INS TANIN ex HMS SPRINGER).



'hopeless fantasy', yet at the same time (in true Nelsonian fashion, 'I really do not see the signal' (often quoted as 'I see no ships') did not act to prevent, interfere or deter the initiative. In 1959, LT CDR Dror and his crews sailed with two old and outdated S class submarines (S 71 INS TANIN (ex HMS SPRINGER) and S 73 INS RAHAV (ex HMS SANGUING) purchased from the British Royal Navy – to begin what would become the Israeli Navy submarines flotilla and, subsequently, its Submarine Service. Seven years later, one of the submarines (INS Tanin) will complete a daring operation, entering the port of Alexandria – but this belongs to Part II of the IDF Navy's story. ■

Yosale Dror



Haifa harbour, 16 December 1959. CIC of the Israeli Navy, Admiral Samuel Tankos, bestows Yosale with his Dolphins specialisation pin, serial number 001. INS TANIN had just arrived from Portsmouth.

Yosale Dror (Dror means Freedom in Hebrew) was born in Mexico City in 1924 and moved with his family to Israel in 1930. During the War of Independence (following the British withdrawal in May 1948), Dror was an underground commando fighter and diver and personally sabotaged several British ships; damaging the British transport ship Ocean Vigour – used for the deportation of Jewish immigrants from Palestine to camps, in Cyprus. He later personally sunk the Italian ship Lino in the port of Bari (using a bomb he built himself from supplies he purchased from a local chemist!), which was loaded with weapons and ammunition bound for Syria.

A few years later he was invited to join the young Israeli Navy. At that time Yosale was reading about the successful operations of the Italian navy commando (Flottiglia Decima) in WWII. As a navy commando, he understood that the new Navy had a need for submarines (mainly for special operations from his point of view). Nobody could convince him otherwise, including the CNO who told Yosale that submarines in the Israeli Navy were a 'hopeless fantasy'. Nonetheless, he went to France and attended a basic submariner's course and then began to search for old submarines for sale, with a very little help from Navy...

After a detailed search, Dror concluded that British S-Class submarines would be suitable to Israel's needs and might be available. Shimon Peres, later both Israel's Prime Minister and President, was then the Director General of the Office of Defense. Yosale managed to persuade Peres to recommend the purchase to the Israeli Government and commence negotiations with the British. No easy task at the time!

FOOTNOTES

1. General Sir John Monash, the pre-eminent British Army General of World War 1, was of German Jewish stock. Many Australian's consider that posthumous recognition and promotion to be Australia's second only Field Marshal is long overdue.

2. The British learned never again to oppose the US or operate / fight without its support; whereas the French learned not to trust the US and to maintain its own independence of thought and action (including its own Nuclear deterrence), even within the EU.

Keeping Watch

A History of the Navy League of Australia 1895–2015

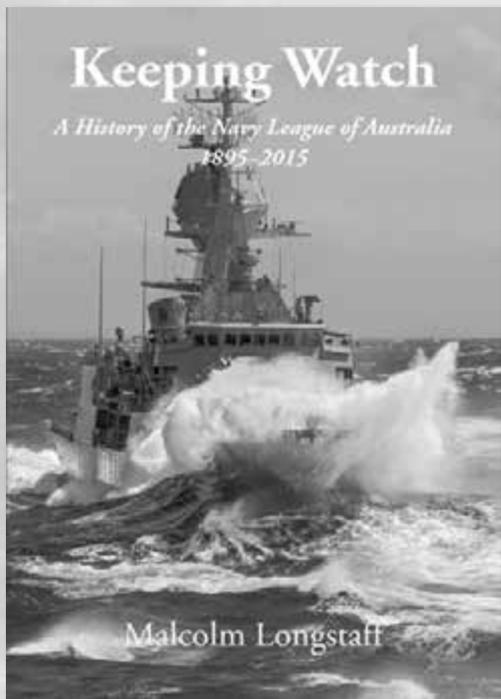
The Navy League of Australia is pleased to announce the publication of *Keeping Watch — A History of the Navy League in Australia*. Written by Malcolm Longstaff OAM, the 279 page book is illustrated with over 70 images and traces the history of the League in Australia since 1895 when the Navy League of Great Britain's Colonial Committee began to promote the aims of the League throughout the British Empire leading to the formation of the first Australian Branch in Launceston the following year.

This delightful and informative book is an essential read and much, much more than a coffee-table glossy. Not only does the book tell the story of the growth of the League in Australia, it entwines three histories — that of Australia from Federation; that of the Royal Australian Navy (which celebrated its 100th Anniversary in 2013) and that of the Navy League Sea Cadet Corps. The first Navy League Sea Cadet Unit was started in New South Wales in 1920 and the organisation expanded over the following half century to become, by the early 1970s, too large for a voluntary organisation to manage. The Sea Cadets were taken over by the RAN in 1973, becoming the

Australian Naval Cadets of today. Many Navy League cadets went on to join the Royal Australian Navy, making a substantial contribution to the service.

Keeping Watch not only provides a maritime 'who's who' over the past 120 years but interweaves this narrative with that of Australia, amidst the international setting of two World Wars: the first of national formation and identification; the second for existential survival against Japan. As George Orwell may have put it 'those who do not know their history, have no future'. The Navy League is one of those institutions which are part of Australia's history, at first as an off-shoot of the British Institution and, after 1950, as an Australian autonomous body, The Navy League of Australia. These institutions reflect us and our people — and who we aspire to be. Making good use of many contemporary press and other reports which reflect the attitudes of our society in past decades, *Keeping Watch* reminds us who we were, who we are and who we may purport still to be. It connects our past with our future. Today the Navy League of Australia has branches throughout Australia, represents and promotes the views of citizens concerned in the maritime defence of Australia, continues to support elements of the Australian Navy Cadets, and publishes the League's quarterly national magazine, *The Navy*, which has been published continuously since 1938.

Malcolm Longstaff is well qualified to tell the story of the League. He has had a long-standing interest in maritime affairs and has been an active member of the executive committee of the NSW Division of the Navy League since 1970 and the Division's Vice President since 2014. His excellent book is an essential buy for anyone seeking to understand our past and conceptualise our future. It tells the League's story, from the perspectives of humanity and the sea. It is a great present for summer — and a great read by the beach. We are girt by sea, after all!



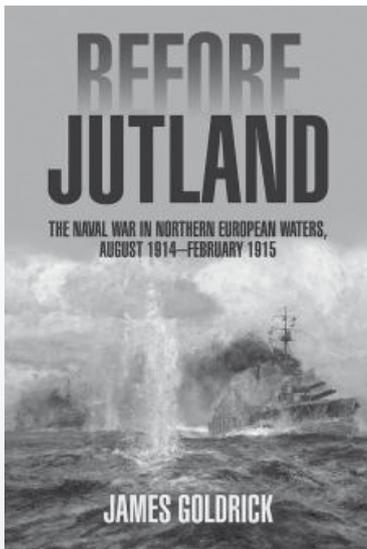
Keeping Watch **A History of the Navy League of Australia 1895–2015**

Malcolm Longstaff OAM
Navy League of Australia

ISBN 978-0-646-92541-7 (hb)
ISBN 978-0-646-95367-0 (sb)

***Keeping Watch* is available in soft back for \$30 plus \$15 postage and packing per copy. A limited number of hard back copies are also available at \$40 plus \$15 postage and packing per copy.**

Copies of *Keeping Watch* can be ordered from The Navy League of Australia, NSW Branch, on the order form which can be downloaded from the League's website, www.navyleague.org.au.

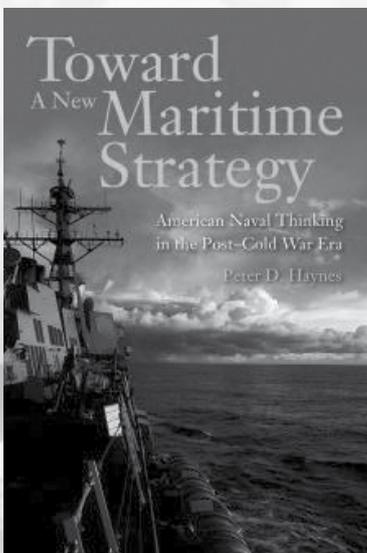


Before Jutland
The Naval War in Northern European Waters August 1914-February 1915

Rear Admiral James Goldrick AO, CSC, RANR
Naval Institute Press
ISBN 978-1-59114-349-9
\$US44.95; \$AS60.95

James Goldrick writes well and his detailed knowledge and access to RAN / RN records on all sides of the Pacific and Atlantic, makes for an entertaining and insightful read. With access to previously un-available papers appearing in the Naval Review (itself formed in 1913, 'before Jutland'), the book also presents a parallel narrative between over control and the clockwork fleets that fought and lost (both lost) at Jutland, and the Fleets

that then emerge. In the latter part of the book, James rightly considers the impact of the lessons-not-learned, on how the RN formed to fight World War II, and then the Cold War. These lessons remain pertinent today and represent the conflict between command and control of the sea – an issue upon which Goldrick has also written with insight and verve. Finally, as any good author does, James leaves us with a question: 'the Admiralty would have been a different place without Churchill, but the question is open as to whether it benefitted from his energy more than it suffered from his ignorance?' One looks forward to seeing how James answers this; noting Churchill's performance in WWII, which started badly for him in Admiralty and the failed Norway campaign.

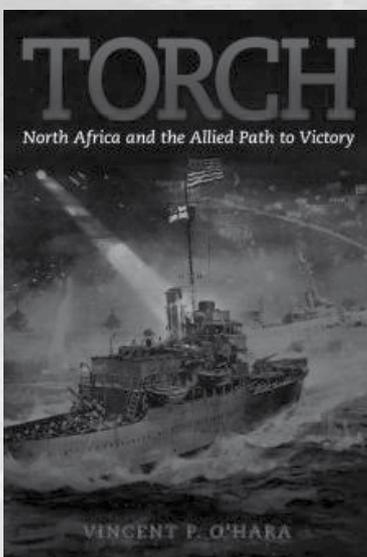


Towards a Maritime Strategy
American Naval Thinking in the Post Cold War Era

Captain Peter D. Haynes USN
Naval Institute Press
ISBN 978-1-61251-852-7
\$US49.95; \$AS67.50

Peter Haynes writes well and insightfully on the matter of Naval Strategy and articulating what a new maritime strategy may look like in the 21st Century. In particular, he argues for a revival of thinking matched to decisive action over the longer term. This also means recognising that Cold War designs of crews and ships are no longer affordable or fitted for use in the 21st Century. It reminds us, that when one is considering maritime strategy; one is thinking centuries – not decades or years. The ships and submarines being designed today, for building

tomorrow – short of a global war – will be with us to the back end of the 21st Century. In fact, they are already impacting the C22nd! This will be an uncomfortable book for many naval officers, locked more comfortably into control and methodology; than command and strategy. That though is the point. This book is a wake-up call for many senior officers to start thinking strategically again and designing and building the ships necessary to maintain global law and order in an increasingly contested and unstable future. Sadly, the challenges it raises means that it will not appear on many senior officer's book shelves, anytime soon. That may also be the point. It is likely to be on the book shelves of the Chiefs and Lieutenants who will form tomorrow's Navies, and who know the current models are bust. Peter, you have done us a great favour in beginning the long tack home to maritime thinking and reason!



Torch
North Africa and the Allied Path to Victory

Vincent P. O'Hara
Naval Institute Press
ISBN 978-1-61251-823-7
\$US49.95; \$AS67.50

A telling cover image, shows British warships flying the White Ensign under the ensign (flag) of the United States of America. The image entitled 'Breaking the Boom at Oran' by C.E. Turner, serves to illustrate the main point made

in O'Hara's excellent narrative. That this was the first occasion that the U.S. and U.K. learned to interoperate together, from which lessons were learned and applied in the major European amphibious campaigns including in Italy and at D-Day, of WWII. We learned differently in the Pacific, to which the RN (with RAN) also subsequently and decisively contributed. O'Hara captures the intrigue and jealousies on both sides (US and UK) leading to both success and failure in Tunisia and how France was ultimately brought into the war. Great read; good book; well written – worthy of reading.

STATEMENT OF POLICY

For the maintenance of the Maritime wellbeing of the nation.

CURRENT AS AT 1 JANUARY 2016

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, and the shipping and transport industries.

The strategic background to Australia's security is changing and in many respects has become less certain. The League believes that Australia should pursue 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 and particularly New Zealand, PNG and the island States of the South Pacific.
- Advocates the acquisition of the most capable modern armaments, surveillance systems and sensors to ensure that the ADF maintains technological advantage over forces in our general area.
- Advocates a significant deterrent element in ADF capability 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, recognising that this means in conjunction with allies and economic partners.
- Endorses the control of coastal surveillance by the ADF, and the development of the capability for the patrol and surveillance of all of Australia's ocean areas, its island territories and the Southern Ocean.
- Welcomes Government initiatives concerning the recovery of an Australian commercial fleet capable of supporting the ADF and the carriage of essential cargoes to and from Australia in times of conflict.
- Strongly supports the 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.
- 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.
- In order to mitigate any industry capability gap following the completion of the Air Warfare Destroyer program, recommends bringing forward the start date of the planned future frigate program.
- Urges that decisions to enhance the strength and capabilities of the Army and Air Force, and to greatly improve the weaponry, and the intelligence, surveillance, reconnaissance, cyberspace and electronic warfare capabilities of the ADF, be implemented.
- 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 recognises the fundamental importance of a stable and continuous shipbuilding program for the retention of design and building skills and the avoidance of costly start up overheads.
- Supports the efforts by Navy to rebuild the engineering capability to ensure the effective maintenance and sustainability of the fleet.
- Advocates the retention in preservation (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 a strong focus on conditions of service as an effective means of combating recruitment and retention difficulties.

As to the RAN, the League, while noting the 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.
- Welcomes the announced increase in Defence expenditure to 2% of GDP over the next 10 years.
- Considers that the level of both the offensive and defensive capabilities of the RAN should be strengthened, in particular with an increased number of new frigates to replace the Anzac Class, noting that these vessels will be our main escort forces in the middle of this century in a very different world.

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.



HATCH: NUSHIP HOBART (D39) with NUSHIP BRISBANE (D41) in background on lift ASC Osborne SA June 2016.



DISPATCH: Decommissioning of Los Angeles-class fast-attack submarine USS CITY OF CORPUS CHRISTI (SSN 705) Pearl Harbor-Hickam May 30.



US LCAC Hovercraft entering HMAS Canberra Dock, RIMPAC 2016, courtesy RAM