



ISSUE 154

# headmark

FINAL ISSUE – JUNE 2015

*Surface Warfare: Taking the Offensive*

*The Indonesian Maritime Doctrine:  
Realising the Potential of the Ocean*

*The Naval Build-Up in the Philippines*

*National Defence Strategic Policy as a  
Function of National Leadership*

*An Ocean for my Kingdom*

*World Naval Developments*

*ANZAC Frigate Upgrade sustains WA jobs*

*Fit to be a Frigate?*

*Navigating the Black Ditch: Risks in the Taiwan Strait*

*To Safeguard the Seas*

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*An e-7a Wedgetail and two f/a-18a Hornets provide a fly past during the Anzac Day 2015 National Ceremony held in Canberra.*



Ms DIANE BRICKNELL came on board the ANI Headmark project from the start of a changeover to a more dynamic design, around 10 years ago.

Through more than a decade she has contributed her expertise and design capabilities to produce a dynamic and attractive publication. As Headmark moves to an all-online format, we wish her well and thank her for her dedicated input.



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of conventional  
explosive ordnance  
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explosive devices.*

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# AUSTRALIAN NAVAL INSTITUTE 2015 REPORT

BY RADM GREGORY SAMMUT CSC RAN

## ANI President's Report 2015

In the face of a rapidly changing environment, I am pleased to stand before you this evening and report that the ANI can be confident in successfully navigating the last 12 months. More importantly, it has done so while laying strong foundations for the changes that it must make to remain successful into the future.

## ANI's Online Presence

The most obvious ANI advance over the past 12 months has been online. It is now a year since the institute revamped what had become an almost moribund website. We have leveraged the experience and advice of our webmaster, Crispin Hull, who has proceeded with appropriate caution but always with the Institute's aim of furthering debate on naval and maritime matters in mind.

The Council decided that we would allow free access to online material on the condition users became a subscribers to the site and provided their email address. All ANI members were subscribed immediately. The number of subscribers has slowly grown towards 500, including a dozen or more from overseas.

Ongoing growth in the number of on-line subscribers will be important to the business shift the ANI is in the course of making to adapt to new realities and survive as an organization of relevance.

## Centre for International Maritime Security

In January this year, the ANI became the Australian partner of the US-based Centre for International Maritime Security. This partnership has opened access to a wealth of new naval maritime and geo-political articles and essays, which we are permitted to place on our website to supplement the articles and

reviews which we generate from our regular writers. Our long term aim is to attract some of the naval luminaries who write for the major journals to supplement Norman Friedman our most regular international contributor. This remains a work in progress.

The criticism of the ANI website in the past was that it never changed and was therefore not worth visiting. It was more of a notice board than a website. This is no longer true. All of you should be receiving from the business manager a weekly email pointing out new items on the ANI website. New high quality material is being placed on the site every day and is being read by our subscribers, and a consistent effort is being made by members of the Council to keep the website refreshed.

Articles and essays are becoming available on a range of international maritime strategic issues and defence matters closer to home. More than 200,000 words have been added since the revamp and the rate of addition is growing without sacrificing quality and pertinence to the maritime debate.

## Forty years of ANI published archives online

A critical part of the revamping exercise was to ensure that the 40 years of the ANI's journal and *Headmark* would be made accessible online to the naval community and the public at large.

It was a significant undertaking. The archive consisted of about four million words and thousands of images. Now the website has all of that in a text form which can be searched, as well as scans of the original pages. It's quite an outcome that our valuable resource has now been preserved and made accessible.

With such rich content, we hold hopes that the website will encourage more people to contribute to the maritime debate whether by way of

original articles or commentary on what is already there. There is more work to do to make the site increasingly interactive, but we are on our way to making the website the front door of the ANI rather than the cat flap around the back!

We are looking at continuously improving the website and a couple of examples of a new look have been included in the Power Point presentation you will see shortly. A new look would greatly assist to expand our appeal and grow the subscriber database.

## Proposed Cessation of Headmark as a publication

If I could turn to *Headmark*.

Last year the Council agreed to reduce the number of *Headmark* editions to two per year to offset costs to develop the website in the first instance, and to also control ongoing costs over the longer term. We have been monitoring this step, with a keen eye on website use and the balance sheet.

At the first Council meeting after this AGM, a decision on publication of *Headmark* editions and the format of future publications will be made in the context of the finalisation of the business plan which will be completed by mid-year.

I should explain, however, that we assess the cost of producing *Headmark* and posting it to members can no longer be sustained without an unaffordable drain on current and projected resources. The expenditure of \$30,000 pa to produce four editions of *Headmark* is disproportionate when considering we are only reaching our 350 members. Even a more economical two per year is unsustainable in light of present income from membership and sponsorship.

The council will therefore be asked to consider a proposal that the next hardcopy edition of *Headmark*, due in June this year, will be the last. At that point the name 'Headmark' will migrate to the Website and money saved will directed towards a staged upgrade.

## Proposed: "Australian International Journal on Naval and Maritime Affairs"

It is planned that ANI will continue to publish annually, though perhaps in a simpler format and under a different title - possibly the *Australian International Journal on Naval and Maritime Affairs*.

The proposal will be to produce this as a small annual edition of important maritime papers, which we do not put onto the website. The journal would be an academic publication and therefore may not require pictures. It could be produced very simply in A5 size, though we would aim for it to become a prominent publication, both nationally and internationally. There is no equivalent publication,

which may offer market opportunities. Consideration is being given to positing the annual publication for international readership, which will hinge on the profile of its contributors. It will be distributed to the ANI financial members with the objective of sustaining part of the basis for current and ongoing membership.

Publication of this new ANI journal is not anticipated until mid-2016. This will avoid the expense of a producing a hard copy magazine over the next 12 months allowing us to:

- a. Reinvest in website, and
- b. Focus on seeking support and submissions for the new journal.

ANI will approach the National Security College at ANU to seek papers. The CDSS is another logical place to seek high quality submissions.

An active Editorial Committee to both seek content, and review and assess articles provided will be important.

A notice to members explaining why *Headmark* will no longer appear will be placed in the June edition and inviting all members to take advantage of the new *Headmark*, which will be on their Institute's website.

## Events 2014/15

The major ANI event this year was the Vernon Parker Oration in October, delivered at the National Press Club by Mike Carlton. This was very well attended with over 100 diners and represented a break from our practice of holding this dinner in ADFA or at the ADC. *Sydney-Emden* was well and truly covered by Mike only a couple of weeks before the centenary of the engagement. Sponsorship was provided for the third consecutive year by Lockheed Martin for which we are most grateful.

I will leave the events manager to speak on the plan for the next Vernon Parker Oration on 26 May and the Goldrick Seminar we hope to hold in October after Sea Power Conference 15.

## Changes to Presidency of the ANI

As the ANI seeks to reshape the manner in which it furthers the maritime debate, so must it consider the relevance of its constitution in the current day and into the future.

We have reached the point where there are too few senior serving officers to fulfill the responsibilities of President. Indeed, I am finding it increasingly difficult to exercise my responsibilities as President while also serving as Head of the Future Submarine Program. Many of our valued sponsors legitimately seek opportunities in the program I am responsible for delivering, and the perception alone of a conflict of interest on my part is enough to damage both the ANI and, of course, Defence.

For this reason and the related need for the ANI to avail itself of the talents of those not serving in the RAN, a special resolution will be put to you to amend the constitution to allow the President to be either a currently serving member or a previous serving member of the RAN.

And for the reason I just outlined, I will be stepping down as President of the ANI at the conclusion of this AGM. I do so, however, in the sound comfort of announcing that Vice Admiral Peter Jones has nominated for the position and will stand for election to the role later in this meeting along with the other office bearers and members of the Council. Subject to your agreement to the change in the constitution, he will be able to take up the role once the updated constitution is lodged with the Registrar General for the ACT.

The lodgement must be done within one month of the AGM, but the Business Manager will achieve this within 5-10 days. The ANI will be without a President for this short period.

I don't hesitate to say that we are very fortunate that VADM Jones has nominated for role of President, which also lessens the regret with which I

stand down from the position as I continue to serve as Head of the Future Submarine Program.

## Expanding Sponsorship

If I may touch on the ongoing importance of our membership before concluding. Without our members we would not be an Institute.

We need support from the existing membership and to expand the paid up base while also attracting a much larger number of online subscribers. We need to shore up our relationship with our sponsors and seek new sponsorship from companies which have not been previously been approached. Brian Mansell has kindly agreed to take up the banner and is actively approaching sponsors for this year's Vernon Parker oration and looking beyond to a long term and sustainable income stream from sponsors

## Conclusion

To conclude ...

There remains a place for the ANI in 2015 and beyond if we are willing to understand the new environment in which we operate, and adapt as we must to remain relevant to the maritime debate, and meet our enduring charter. In other words, our vision and goal has not changed, but the manner in which we achieve these must if the Institute is to survive.

Change is never easy. But I commend to you the initiatives that I have outlined in this report, and others will expand upon during this meeting.

As I step down from role of President, I must acknowledge the unfailing support of the Council of the ANI. There are a number of dedicated individuals who are working hard for your Institute. I pay special tribute to the Vice President, Captain Timothy Brown (who has spearheaded reform); the Secretary, Commander Ben MacDonald; Councilor the inimitable Lieutenant Commander Desmond Woods; our Public Officer, Lieutenant Commander Sophia Hill; Treasurer Lieutenant Lee Robinson, and our exceptional business manager, Ms Sue Hart (who has gone beyond the call on so many occasions to support the Institute).

To the membership, thank you for your support for the Institute and the privilege I've enjoyed to have served as President.

I submit my last report. Thank you again.

RADM GREGORY SAMMUT  
CSC RAN



# Message from the President

After 40 years of publishing a hard copy of the Journal of the Australian Naval Institute, our organization has decided to shift our main forum to the ANI internet website. This edition is therefore the last hard-copy version. This change was thought over long and hard. Besides the growing costs of production, there was a realization that the ANI website can reach members and subscribers with greater immediacy and penetration than a hard-copy.

After a 12 month trial, I can report that the website is moving forward in leaps and bounds. We will continue to solicit and publish thought-provoking articles, they will just be available on-line. We will consolidate these articles on a quarterly basis into an online *Headmark* edition. As we mark this important milestone I would like to acknowledge the work of our current editor Dr Tom Lewis and his talented production team.

Importantly, the 12 month trial period has also allowed us to look at options as to 'how' we can better leverage what we can communicate in paper print. So I can inform you that we are also in the final throes of refining options to produce a new journal for our members and the broader community. This journal will be different to that which has gone before, and provide the much-needed opportunity to elevate the ANI in the national and international strategic discourse. The plans will see this Journal supported by a distinguished editorial board and will help put the ANI on a stage with other prominent strategic institutions.

The changes to *Headmark* is but one of a significant number of changes underway within the ANI. At the recent Annual General Meeting members agreed to change the Constitution to allow retired members of the RAN to be Council members. The drivers for this change were two-fold. First, there was a recognition that serving members are often hard-pressed with their duties to find the necessary time for roles such as the President. Second, this move may give the ANI greater freedom in what it publishes. I am therefore the first retired member of the RAN to be President of the ANI. I believe the change offers other opportunities for the ANI to engage more actively and lead in the public discourse on naval and maritime affairs. It is my intention to seize opportunities where they present themselves to do just that.

Many of the changes underway have been spawned during the stewardship of Rear Admiral Greg Sammut. I would like to acknowledge his significant contribution both as a President and member of the ANI over many years.

The ANI has a unique place in the spectrum of naval and defence associations. It has through its members the greatest professional knowledge of naval affairs. We need to better harness this intellectual capital for the benefit of the RAN and our nation's defence. In particular, the ANI should have a particular focus on future developments in the naval and maritime spheres to help shape the bright future we all believe the RAN must have.

The ANI is also looking for other opportunities besides its annual dinner and associated Vernon Parker Oration such as the Goldrick Seminar to provide public forums for discussion. The ANI will also develop plans to publish in hard and soft copy more substantial papers as proceedings of such events.

To the members and sponsors of the ANI I seek your continued support as this great institution changes course to its new headmark. We will engage with you in this journey and keep you updated on our progress.



Vice Admiral Peter Jones, AO, DSC, RAN Retired







US Navy 127m  
Littoral Combat Ship

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# Surface Warfare: Taking the Offensive

BY REAR ADMIRAL THOMAS S ROWDEN, USN

Captain Jim Kilby started off this theme recently with “Surface Warfare: Lynchpin of Naval Integrated Air/Missile Defense”, and Captain Charlie Williams followed up with “Anti-Submarine Warfare (ASW) – The Heart of Surface Warfare” and “Increasing Lethality in Anti-Surface Warfare (ASUW)”.

Both of these officers were recently selected for flag rank, and the Surface Force could not be more fortunate. Their years of fleet experience in these mission areas uniquely qualify them to lead our force in the future. Together with our continuing mastery of land attack and maritime security operations, the three operational thrusts they describe a Surface Force that is moving from a primarily defensive posture to one on the offense. This is an exciting development, and I want to spend some time here reinforcing their messages.

The single most important warfighting advantage that the US Navy brings to the joint force is the ability to project significant amounts of combat power from the sea, thousands of miles from our own shores on relatively short notice and with few geo-political restraints.

No one else can do this, and for the better part of two decades, our ability to do so was unchallenged. Without this challenge, our mastery of the fundamentals of sea control – searching for and killing submarines, over the horizon engagement of enemy fleets, and long range air and missile defense – diminished, even as the world figured out that the best way to neutralize this power projection advantage was to deny us the very seas in which we operate.

Surface Warfare must “go on the offensive” in order to enable future



power projection operations. I call this “offensive sea control” and it takes into consideration that in future conflict, we may have to fight to get forward, fight through our own lines, and then fight to stay forward.

Pieces of ocean will come to be seen as strategic, like islands and ports, and we will offensively “seize” these maritime operating areas to enable further offensive operations. Put another way, no one viewed the amphibious landings in the Pacific in WWII as “defensive”; there was broad understanding that their seizure was offensive and tied to further offensive objectives. It is now so with the manner in which we will exercise sea control.

What does this mean to fleet Sailors? It means that we have to hit the books, dust off old TACMEMOS and begin to think deeply again what it means to own the inner screen against submarines, to hunt down and destroy adversary surface vessels over the horizon, and to tightly control the outer air battle.

We need to study the threats

and devise new tactics designed to counter them. We need to master the technology that is coming to the fleet – Navy Integrated Fire Control (Counter Air), or NIFC-CA; the Air and Missile Defense Radar (AMDR); the SQQ-89 A(V)15 ASW Combat System; the LCS ASW Mission Module; the introduction of the Griffin missile in the PC class; new classes of Standard Missiles; Rail Gun; Directed Energy.

We will need to use these systems and then do what Sailors always do – figure out ways to employ them that the designers never considered.

Going on the offensive is a mindset, a way of thinking about naval warfare. It means thinking a good bit more about how to destroy that than how to defend this. Don't get me wrong – we will still need to be able to defend high value units, amphibious forces, convoys, and logistics – but we will increasingly defend them by reaching out and destroying threats before those threats are able to target what we are defending.

We are moving to a concept of

*The coastal patrol ship USS Typhoon launches an MK-60 surface-to-surface missile during a Griffin missile exercise. (US Navy)*



dispersed lethality in the Surface Force, one that presents an adversary with a considerably more complex operational problem. It will not be sufficient to simply try to neutralize our power projection forces.

While these will be vigorously defended, other elements of the surface force will act as hunter/killer groups taking the fight to the enemy through the networked power of surface forces exercising high levels of Operational Security (OPSEC) and wielding both lethal over-the-horizon weapons to destroy adversary capabilities and sophisticated electronic warfare suites to confound adversary targeting.

Especially in the Pacific, vast expanses of ocean will separate the carrier air wing from dispersed surface operations, so the paradigm of the past few decades that suggested the carrier would provide strike assets to supplement the Surface Force is no longer valid. We will leverage air wing capability, but we will not be dependent upon it.

Working in tandem with shore-based maritime patrol aircraft and our organic helicopters, we will seek out and destroy adversary submarines before they threaten high value units or fielded forces. Bringing together the networked power of surface IAMD forces and the mighty E-2D, we

will dominate the outer air battle, eliminating threats to the force at range. The Surface Force will seize strategic "maritime terrain" to enable synchronized follow-on operations.

Those who may ask how the current fiscal environment impacts this vision, my answer is that it does so substantially. We will be forced to favor capability over capacity. We will favor forward deployed readiness over surge readiness. We will continue to invest in forward-looking capabilities through a strong science and technology/ research and development budget, while ensuring we accelerate those promising technologies closest to fielding and most effective in advancing our offensive agenda.

We will posture more of the force forward, and more of it in the Pacific. While the total size of the fleet will likely decline if current conditions continue, more of it will be where it needs to be, it will be more effectively networked over a larger more dispersed area, and it will be equipped with the

weapons and sensors necessary to enable this offensive shift.

I am bullish on Surface Warfare, and you ought to be too. I look forward to continuing this dialogue on the Renaissance in Surface Warfare, and I am proud to be part of the greatest Surface Force in the greatest Navy the world has ever known! 🇺🇸

*Rear Admiral Thomas S. Rowden's current assignment is on the Chief of Naval Operations Staff as director, Surface Warfare Division. A native of Washington, DC, and a 1982 graduate of the United States Naval Academy, Rear Admiral Rowden has served in a diverse range of sea and shore assignments.*

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*Surface Warfare - Taking the Offensive/ System consols of AN:SQQ-89(V)15 onboard of USS Momsen (US Navy)*



# The Indonesian Maritime Doctrine: Realising the Potential of the Ocean

BY MERVYN PIESSE

## KEY POINTS

- President Joko “Jokowi” Widodo has outlined an ambitious maritime doctrine that may become the centrepiece of his five-year term.
- The doctrine seeks to boost economic growth by improving connectivity between the islands of the Indonesian archipelago. Increasing domestic connectivity will enhance an underperforming logistics network and reduce the cost of shipping goods around the country.
- Certain sectors of the Indonesian economy are set to benefit from the president’s maritime vision. Jokowi aims to protect and modernise the fishing industry, further develop the ship-building industry and continue the naval modernisation initiated by his predecessor.

- To achieve those ambitious goals, he will need to attract private and foreign investment. That could become easier now that the uncertainty of an election year is over and Jokowi is beginning to establish himself as a capable reformer.

## SUMMARY

This article examines the main elements of Jokowi’s maritime doctrine, the instrument by which the president aims to boost the economy into the upper middle-income bracket. It seems, however, that a lack of interest among investors in infrastructure projects is the largest obstacle to realising this maritime doctrine. Without private and foreign investment, it will be exceedingly difficult to remedy the

country’s infrastructure deficit and achieve the rate of economic growth that Indonesia is capable of.

## ANALYSIS

### Maritime Doctrine

Jokowi’s maritime doctrine is set to become the defining feature of his five-year presidency. In the document outlining his policy platform, he promised to focus upon maritime security, diplomacy and naval development. Later, in an interview with Western media, he stated that his maritime vision is about more than just basic statecraft; it also encompasses trade, tourism, fishing and transportation. In the same interview he also alluded to the need for foreign





investment to fully realise his aspirations.

In a speech at the East Asia Summit, in November 2014, Jokowi introduced four pillars guiding his administration. Together, they display a desire to rebuild the maritime culture that existed prior to European colonisation and the disruptiveness of the independence process. The doctrine shows a re-conceptualisation of Indonesia's place in the world and the role that geography plays in shaping foreign and domestic policy.

Rather than viewing the waters that surround the Indonesian archipelago as a weakness, the president wishes to recast them as a source of great strength and economic potential. This vision, if fully realised, promises to transform Indonesia into a maritime power with considerable regional heft.

### *External Component of the Doctrine: The World's Maritime Axis*

The outward-looking element of the maritime doctrine has been taken as a means to reorient Indonesia's place in the world. Indonesia has long focussed upon the Association of South-East Asian Nations (ASEAN) and the Pacific Ocean while generally attaching less significance to the Indian Ocean to its west. In declaring Indonesia the "world's maritime axis", Jokowi has positioned Indonesia as an Indo-Pacific power, with a geopolitical situation that is influenced by events in both regions. The president could seek to foster closer relations with countries within the Indian Ocean Region, particularly India.

Developing closer relations with India, to balance against the increased assertiveness of China and



the established power of the US, will likely be an unofficial part of Jokowi's maritime doctrine. A closer relationship with India is likely as recent Chinese actions in the South China Sea, particularly in regard to the waters around the Natuna Islands, threaten Indonesian interests.

Jakarta wishes to maintain an outward appearance of having no direct interest in the dispute, thereby allowing it greater credibility as a mediator and go-between. Jokowi will, therefore, still attempt to cling to the well-established foreign policy position of *bebas dan aktif* ("free and active"), in which Jakarta does not officially lean towards any foreign power.

For its part, Beijing is also keen to contribute to Indonesian maritime development. Wang Yi, the Chinese Foreign Minister, has indicated that his government is willing to assist in infrastructure projects. Jokowi has also been quoted as saying that 'Indonesia is on the way of developing [sic] into a maritime power, while China proposes to build the twenty-first century Maritime Silk Road; the two initiatives highly fit with each other.'

Chinese President Xi Jinping launched his Maritime Silk Road (MSR) concept in Indonesia in 2013.

This initiative envisages a maritime trade network stretching from Beijing, through Indonesian waters into the Indian Ocean and onto the Middle East and, perhaps, as far as Europe. China will benefit from any maritime development that is undertaken in Indonesia as it is a major transit point for Chinese trade.

Jakarta is open to receiving Chinese aid to further the president's vision. Rizal Sukma, the presidential advisor for foreign policy, views Chinese and Indonesian maritime plans as complementary. He has identified three areas where the aims of the two states overlap, specifically in terms of connectivity, safety and diplomacy. In his view, the doctrines are not designed to further either side's hard power and instead offer mutual gains.

In terms of balancing between the Indo-Pacific powers, Jokowi's maritime doctrine seeks to continue existing foreign policy goals. Building a closer relationship with India has been on Jakarta's diplomatic agenda for most of the last decade and could now gather greater momentum. At the same time, Indonesia does not seek to isolate China or the US. Warmer relations between Washington and New Delhi could also reduce any unease that Jakarta

*The fast missile-equipped patrol boat KRI Layang (Chris Sattler)*

## *The Indonesian Maritime Doctrine: Realising the Potential of the Ocean*

could experience in furthering its ties with India, as doing so will likely be supported by the US. Indonesia will continue to maintain, and benefit from, its relationship with all three powers.

### *Maritime Diplomacy: Finalising Maritime Boundaries with India Unlikely to Significantly Further Relations*

Maritime diplomacy is a significant part of the president's doctrine and is designed to manage the sources of conflict at sea. According to Jokowi, these conflicts are caused by the theft of fish, the violation of sovereign borders, territorial disputes, piracy and pollution. Diplomatic efforts, at least over the next two to three years, are likely to focus on the Indian Ocean Rim Association (IORA), with Indonesia assuming the role of IORA Chair in November 2015, and the finalisation of maritime boundaries with neighbouring countries.

Jokowi has taken office at a propitious time in Indonesia's efforts at reconnecting with the Indian Ocean Region. IORA is currently focussed upon maritime safety and security, trade and investment facilitation, fisheries management, disaster risk management, science and technology and academic co-operation and tourism and cultural exchanges. At the last meeting of IORA, in October 2014, there was a greater focus on business and increasing trade and investment flows in the region. Indonesia is likely to utilise its position as Chair of IORA to bring increased regional attention to its maritime doctrine and the opportunities that it presents.

By 2019, Indonesia plans to have settled its unresolved maritime boundaries with Timor-Leste, India and Thailand. Completing boundary

discussions with India is, in itself, unlikely to significantly further the bilateral relationship.

Under the joint Malacca Strait Sea Patrol (MSSP), Indonesia, Singapore, Malaysia and Thailand patrol the Strait of Malacca that lies to the south-east of India's Andaman and Nicobar Islands. These four states have been reluctant to allow China, India or the US to increase their naval presence in the area as they are ostensibly wary of the Strait becoming the scene of great power confrontation. Singapore, Malaysia and Thailand have shown a willingness to allow India to patrol the Strait, but Indonesia has remained resolutely opposed. Indonesia has renewed defence co-operation with India, undertaking co-ordinated patrols, and bilateral or multilateral exercises, as well as humanitarian assistance and disaster relief.

India has displayed a willingness to become more engaged in South-East Asia.

After Malaysia Airlines flight MH 370 went missing in March 2014, India responded to the Malaysian Government's request to contribute to search and rescue (SAR) operations. Despite the limitations of its own naval forces, Indonesia has not been receptive to Indian offers to assist with SAR operations during the search for Air Asia flight QZ 8501. It seems that Indonesia is still wary of Indian involvement within its

maritime approaches and how a closer relationship with that country could be perceived internationally. This wariness will slow efforts to improve the relationship.

### *Domestic Components of the Maritime Doctrine*

Domestically, Jokowi hopes to boost trade between the various islands of the Indonesian archipelago, re-assert sovereignty over marine-based resources, develop a shipbuilding industry and strengthen naval capabilities.

### *Boosting Inter-Island Connectivity*

Poor port infrastructure has made shipping goods between the thousands of islands that make up the Indonesian archipelago prohibitively expensive. According to data published by the Indonesian Chamber of Commerce and Industry (Kadin), the cost of transportation in Indonesia makes up over 15% of the cost of doing business, compared to less than 7% in other regional economies. In Indonesia, less than 5% of total freight is delivered via the sea.

To encourage business to utilise sea-based routes rather than roads, the government is planning to offer incentives to shipping operators, including fuel subsidies. Offering fuel

*Indonesian warship KRI Clurit (Public domain)*





subsidies to shipping operators may seem contradictory, given the urgent desire to reduce subsidies for motor vehicles, but incentives such as this are likely to help encourage the wider use of sea-based transportation. Such measures will further the development of Jokowi's so-called "sea highway".

Over the course of his first term in office, Jokowi is aiming to significantly reduce the cost of domestic logistics. Upgrading or constructing 24 existing or new ports within the next five years will allow for greater domestic connectivity. Modernising ports to bring them into line with international standards could also increase access to Indonesian harbours with benefits for international shipping. The government has also proposed the importation of up to 2,500 boats, with plans to import 500 from China, to connect the major islands, reduce transportation costs and increase the flow of goods throughout the country.

The efficiency of Indonesian ports lags behind that of other shipping destinations in South- East Asia. Dwell time measures the time from the moment a shipping container is unloaded, until it leaves the container terminal. The main port of Tanjung Priok, in Jakarta, has an average dwell time of 6.4 days. In comparison, Singapore has an average dwell time of 1.5 days and Malaysia, three days. A focus upon port infrastructure can only help to improve efficiency and promote a greater level of connectivity between Indonesian islands, which has long been seen as a major impediment to the economic development of the country.

### *Protecting and Modernising the Fisheries Industry*

Illegal, unreported and unregulated (IUU) fishing is a major regional problem that has significant domestic repercussions for Indonesia. As

fish stocks become depleted in South- East Asia, foreign fishing vessels venture further afield into the territory of neighbouring states. It is not uncommon for Thai, Vietnamese and Chinese fishing vessels, among others, to stray into Indonesian waters in search of more abundant fishing grounds.

In response to this problem, the Jokowi Administration has adopted the hard-line measure of destroying foreign fishing vessels that have entered Indonesian territory. Vessels from Vietnam and Papua New Guinea have been sunk as part of the initiative. Chinese boats, however, have been confiscated but not destroyed, suggesting that Indonesia may be hesitant to draw the ire of the regional power.

As an archipelagic country, with vast seas to exploit, one could expect Indonesia to have a flourishing seafood industry. That, however, is not the case. The industry lacks sufficient cold storage facilities and transport vessels. In a bid to expand and modernise the sector, there are plans to construct 100 fishery centres, with auctioning, storage and processing facilities. Developing the small aquaculture industry that currently operates will further strengthen maritime food security in the country while also taking pressure off marine resources.

The fishing industry accounts for almost one quarter of the total



*Indonesian Navy Nomad N-24 Maritime Patrol Aircraft (Michael Nitz)*

agricultural economy and yet it is underdeveloped. Modernising fishing practices and expanding aquaculture facilities will help Indonesia to better utilise its fisheries resources.

### *Developing a Shipbuilding Industry*

Despite growing demand, domestic shipbuilders have struggled to meet production targets. In a bid to assist the development of a domestic shipbuilding industry, the Jokowi Administration is considering the abolition of import duties and the value-added tax (PPN) on foreign ship components that are still required by local shipbuilders. Such barriers increase the costs associated with domestic ship production by up to 25%. Consequently, many shipping companies prefer to import ships rather than purchase them from local manufacturers, as fully-built imports do not attract import duties or PPN.

The majority of the country's shipbuilding industry is concentrated on the island of Batam, a designated free trade zone located just south of

*Typical Indonesian fishing boat - this one was apprehended north of Australia for "blast fishing." (AFMA)*



## ***The Indonesian Maritime Doctrine: Realising the Potential of the Ocean***

Singapore. Scrapping trade barriers that restrict the development of the industry on a national level will help the more than 200 other shipyards located outside of Batam to become more competitive with international imports.

In the short term, the domestic shipbuilding industry will lack the ability to satisfy the demand for increased tonnage that the maritime doctrine could unleash. In the longer term, if the plans to reduce trade barriers that inhibit the competitiveness of domestic shipyards are successful in attracting more shipbuilders into the industry, then the country could reduce its reliance upon foreign manufacturers.

### ***Naval Development Indicates an Emerging Naval Strategy***

The maritime doctrine continues the military modernisation agenda begun by President Susilo Bambang Yudhoyono (SBY) in 2005. SBY's plan, the Minimum Essential Force (MEF), aimed to develop a green-water navy capable of patrolling the extent of the Indonesian archipelago by 2024. The Indonesian military (TNI) is currently hampered by outdated weapons systems that make it difficult to effectively protect the country's territorial waters.

One of the MEF's major aims is to achieve total independence in the defence industry by 2024. Gaining knowledge and experience from international operators has been a key part of this aim. In 2011, Indonesia entered a technical assistance and export deal with the South Korean company Daewoo. As part of the joint venture the state ship-building company, PT PAL, will take part in the construction of two naval submarines in South Korea with a third to be built domestically. It is not improbable that, in the long term, Indonesia could become a significant maritime player in

the Indo-Pacific but several obstacles could yet impede that lofty goal.

The defence budget is slated to increase to 1.5% of GDP over the next five years. Although it has risen in recent years, from 0.5% of GDP in 2001 to 0.9% in 2013, Indonesian defence spending as a proportion of GDP still lags behind most other South-East Asian states. In dollar terms, however, it is second only to Singapore. While Indonesia could be on its way to becoming a formidable regional naval power, that will be a long-term goal, beyond Jokowi's five-year term.

There have been suggestions that the maritime doctrine indicates a move away from the land-based strategy that Indonesia has followed since independence. A focus on land-based force was fostered in the early years of independence as a means to maintain control over far-flung regions of the archipelago and to better ensure the unity of the country. While the state no longer faces the challenges from separatist groups in Aceh or East Timor, others remain active.

The Free Papua Movement (Organisasi Papua Merdeka: OPM) in Papua and West Papua, as well as an extremist network, with its hub in Central Sulawesi, while weakened, still pose a significant domestic threat. The simmering tension between the military and the police, which occasionally turns deadly, presents another threat to internal stability. In the long term, these threats are unlikely to prevent the formation or implementation of an Indonesian naval strategy, but they could disrupt its timely and efficient execution.

It is more likely that, as a result of the president's maritime doctrine, Indonesia will be in a better position to patrol its maritime territory and defend key transport lines. Engaging in naval operations beyond its territorial boundaries will, however, remain out of

reach for the foreseeable future.

### ***Attracting Investors***

Securing the required level of funding for the development agenda set out in the maritime doctrine will be the main difficulty in seeing the vision become reality. Estimates by McKinsey & Company, a global management consulting firm, suggest that Indonesia needs to invest at least US\$600 billion over the next ten years to improve the country's infrastructure. Scrapping generous fuel subsidies, which were slated to consume over 10% of the 2015 budget, is a step in the right direction. Such reforms will go some way to boosting investor confidence.

Savings from the scrapped fuel subsidy can now go some way towards funding the development of much-needed infrastructure. A large portion of the funds, however, will be spent upon social programmes, such as health care and education, calling into question how much additional public spending can be directed to funding infrastructure investment.

Borrowing money is also a difficult proposition, since the government's budget deficit is legally capped at 3% of GDP. Public finances will therefore not be able to fund all of Jokowi's infrastructure promises. Private investors, however, are hesitant to invest in a country plagued by corruption and bureaucratic red tape.

Domestic reforms will be necessary to attract the level of investment required to fulfil the ambitious development programme.

The poor state of basic infrastructure deters many investors, making them hesitant to risk capital in a market that could struggle to provide basic services, such as roads, water and electricity. Complicated land acquisition laws compound the situation, as these often make the process of setting up



businesses an overly long one. As a result, private and foreign investment remains below the target set by the Indonesian Investment Co-ordinating Board (BKPM). On 1 January 2015, however, a new land acquisition law came into force that should expedite infrastructure development. Already there are indications that the investment climate could be improving, although infrastructure and maritime projects continue to lag behind other sectors.

Infrastructure development will depend on foreign direct investment in the country. This process is already underway with Indonesia joining the Chinese-led Asian Infrastructure Investment Bank (AIIB) and seeking to benefit from Beijing's US\$40 billion Silk Road Infrastructure Fund. ASEAN is another potential source for infrastructure investment. ASEAN is currently focussed upon increasing regional connectivity and Jokowi's bid to increase maritime connectivity within Indonesia has obvious regional benefits. The ASEAN Infrastructure Fund (AIF), in partnership with the Asian Development Bank (ADB), began lending operations in 2013.

Four Indonesian infrastructure projects, jointly funded by the AIF and ADB, are already underway. Efforts made by multilateral infrastructure funds to address the infrastructure deficit should help to improve the investment climate and contribute to stronger economic growth. Japan is increasing its investment in the ASEAN region, and Indonesia in particular, due to rising labour costs in China.

Escalating tensions between Tokyo and Beijing, due to territorial issues in the East China Sea, have only intensified the shift in investment. Jokowi has called upon Japan to increase funding for his country's infrastructure development programme.



There are strong indications that the investment climate is likely to change for the better in the near future. Rather than continuing the overly cautious approach to change demonstrated by his predecessor, Jokowi has shown a desire to be a force for reform. In the months since his inauguration, he has shown a genuine resolve to combat corruption, has reduced the politically-sensitive fuel subsidies before scrapping the subsidy for gasoline altogether and introduced policies to tackle economically harmful practices in the forestry, fishing and oil and gas sectors. As long as his initiatives are not opposed by groups keen to preserve their privileged positions, future reforms appear likely and that can only assist in attracting investment.

## Conclusion

Jokowi's maritime doctrine contains a wide array of ambitious ideas that are likely to boost the Indonesian economy. It predominantly focuses upon growing the domestic economy by tapping into the country's vast maritime potential. In the sphere of foreign policy, it seeks to widen Jakarta's diplomatic focus into the Indian Ocean.

The time frame for achieving these goals is very tight, in many cases, only five years. It is unlikely that all these ambitions will be met in the time

frames given, but steps certainly could be taken towards doing so. In any case, as the world's largest archipelagic country, it makes sense for Indonesia to turn to the seas in search of economic growth. The maritime doctrine is certainly a step in the right direction for the future development of a country that is shaping up to play an important role in the emerging Indo-Pacific regional order. ➤

*Mervyn Piesse is a Future Directions International Research Analyst, at the Indian Ocean Research Programme. A footnoted version of the paper may be found at <http://www.futuredirections.org.au/publications/indian-ocean/2087-the-indonesian-maritime-doctrine-realising-the-potential-of-the-ocean.html>*

*Indonesian Navy  
Parchim I-class  
(Kapitan Patimura-  
class) corvette, KRI  
Hasan Basri (Michael  
Nitz)*

# The Naval Build-Up in the Philippines

BY TYLER MALCOLM

Like many of its regional peers, the Philippines is in the midst of a defense buildup, motivated in no small part by China's assertive moves in the western Philippine Sea and the resource-rich Spratly islands.

The donation recently of two *Balikpapan*-class Landing Craft (Heavy) (LCH) vessels from Australia was the most recent boost to Philippines defense efforts.

The LCH donation is particularly timely, as it complements the upcoming pair of Strategic Sealift Vessels, being built by PT PAL Indonesia. Based on the Indonesian navy's successful Makassar-class Landing Platform Dock, the 8,600-ton amphibious lift ships can transit to remote areas and serve as a mobile base for helicopters and smaller landing craft.

As evidenced during Typhoon Haiyan, the dearth of such assets hampered the Philippine government's aid response to the hardest-hit parts of the country.



As gifts stand, the donation of ex-HMAS *Tarakan* and *Brunei* is particularly generous – the Royal Australian Navy will hand them over fully refurbished with new safety and navigation components, plus spare parts packages. Manila is considering purchasing other LCHs as well.

While the media focus of Manila's defense acquisitions under the Capability Upgrade Program has been centered on big-ticket items to restore

basic conventional force capabilities, there have been other, quieter acquisitions that directly support war-fighting and maritime domain awareness.

Notably, the service signed a Memorandum of Understanding in 2014 with the Philippine National Oil Company to transfer three retired 2,500 ton petroleum tank ships. This acquisition would enable fuel replenishment at sea and increase

on-station time for high-endurance assets like the patrol frigates *Ramon Alcaraz* and *Gregorio Del Pilar*, both formerly US Coast Guard Hamilton-class cutters.

Another low-profile capability is the National Coast Watch Center program – a surveillance system designed to monitor oceanic traffic in the western Philippine Sea.

*Servicemen of the Philippine Army stage themselves to transport bottled water in the wake of Typhoon Fengshen. (US Navy photo by Senior Chief Mass Communication Specialist Spike Call)*



*A Philippines Navy diver works with US forces (USN)*



As expected, details of this national intelligence capability are closely held, but much of it is likely based on the successful implementation of the earlier Coast Watch South program. With heavy US assistance, the Philippines created a network of monitoring stations combining radar, maritime surveillance and radio/data networks that provides a real-time strategic and tactical “picture” of oceanic traffic in the Southern Philippines – the so-called Sulawesi Sea Triangle. That area is a hotbed of illicit trafficking by sea and a favored logistical trail for transnational insurgent forces that prowl the region.

When completed in 2015, the west-facing Coast Watch chain will monitor the Philippines’ Exclusive Economic Zone, extending 200 nm into the contested Spratly Islands group. In the future, additional monitoring chains will cover the Northern and Eastern facing portions of the country as well.

The most recent, visible and well-publicized modernization program has been the integration of the multipurpose helicopter program with the patrol frigate force. Five Augusta-Westland A109s twin-engine helicopters equipped with forward-looking infrared have been delivered to the fleet to replace long-retired BO-105s.

From an operational perspective, the navy has made quick strides to integrating the air asset with ships of the line. The AW109s had a maiden deployment on board *Ramon Alcaraz* during the Australian multinational military exercise Kakadu 2014, approximately eight months after receiving the first helicopters.

Out of all the projects to restore capabilities, the Navy is still awaiting final determination of its premier acquisition – the multi-role frigate. The Philippines wants to buy two units to serve as major and modern combatants

of the patrol frigate force. While the negotiations have been stymied by a complex two-phase process, a list of qualified bidders has emerged, including well-known Spanish shipbuilder Navantia and several South Korean firms, among others.

A winning bid was to be selected in late 2014, but the acquisition process reportedly has been complicated by efforts to separate the tracks of selecting a ship from the embedded weapon systems. This may have to do with current challenges of the Philippines not being easily cleared for purchases of regional-balance changing weapons, such as a long-range surface-to-surface missile, with which this ship class is normally equipped.

The Armed Forces of the Philippines has benefited under President Benigno Aquino III’s administration. To date, multiple modernization programs have either reached significant acquisition stages or have been completed entirely during his tenure.

However, as the new paint smell wears off for the navy, the historical challenges that have haunted its



*Philippines Navy logistics support vessel BRP Dagupan City (Public domain)*



*Philippines Navy upgrade/LCH HMAS Wewak (Chris Sattler)*



*Philippines Navy upgrade/LCH HMAS Tarakan side view (RAN)*



*Philippines Navy patrol boat BRP Artemio Ricarte (Public domain)*

# The Naval Build-Up in the Philippines

past acquisitions and programs loom. It is critical that the next presidential administration continue to support the acquisitions, as well as the services, both politically and fiscally. The Navy needs to ensure that internal expertise among the ranks to maintain their newly acquired equipment is present and sustainable.

Above all, operating effectively and efficiently at sea continues to be the primary objective. The nation's seafaring history and ties to the maritime culture give impetus to the current goals of ensuring territorial integrity and establishing a credible defense. Given the relatively rapid pace of modernization, the Philippine Navy is well on the road to restoring the capabilities necessary to meet those demands. 🚢

*Armando J. Heredia is a civilian observer of naval affairs. He is an IT Risk and Information Security practitioner based in New England, with a background in the defense and financial services industries. He is a regular contributor to the Center for International Maritime Security's NextWar blog.*

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## EQUIPMENT

The Philippine Navy operates around 130 ships and several aircraft.

## SHIPS

The Philippine Navy is currently operating three frigates. There are 11 active corvettes and numerous patrol boats, 11 amphibious landing ships and seven auxiliary ships.

## NAVAL AIR GROUP

Naval Aviation Squadron MF-30 – operates BN-2A Islander

Naval Aviation Squadron MH-40 – operates MBB Bo 105C and AW 109E

Naval Air School Center NATS-50 – operates Cessna 172 and Robinson R-22

## BASES

In line with HPN General Order No. 229 dated 7 July 2009, the Philippine Navy has adopted new names for its bases and stations to pay homage to distinguished naval leaders. The new base names, followed by the old base names are as follows:

### NAVAL BASES

Naval Base Heracleo Alano (Naval Base Cavite) - Headquarters, Philippine Fleet

Naval Base Camilo Osias (Naval Operating Base San Vicente), San Vicente, Santa Ana, Cagayan

Naval Base Rafael Ramos (Naval Operating Base Mactan), Mactan, Cebu

### NAVAL STATIONS

Naval Station Jose Andrada (Fort San Antonio Abad), City of Manila – Current headquarters of the Philippine Navy

Naval Station Jose Francisco (Bonifacio Naval Station), Fort Bonifacio, Taguig City, Metro Manila

Naval Station Pascual Ledesma (Fort San Felipe), Cavite City

Naval Station Ernesto Ogbinar (Naval Station Poro Point), Poro Point, San Fernando, La Union – Headquarters of NAVFORNOL

Naval Station Leovigildo Gantioqui (Naval Station San Miguel), San Antonio, Zambales – Headquarters, NETC

Naval Station Apolinario Jalandoon (Naval Station Puerto Princesa), Puerto Princesa City, Palawan

Naval Station Carlito Cunanan (Naval Station Ulugan), Ulugan, Palawan

Naval Station Narciso Del Rosario (Naval Station Balabac), Balabac Island, Palawan

Naval Station Emilio Liwanag (Naval Station Pag-asa), Pag-asa, Kalayaan Islands, Palawan

Naval Station Julhasan Arasain (Naval Station Legaspi), Rawis, Legazpi City, Albay – Headquarters of NAVFORSOL

Naval Station Alfonso Palencia (Naval Station Guimaras), Guimaras

Naval Station Dioscoro Papa (Naval Station Tacloban), Tacloban City, Leyte

Naval Station Felix Apolinario (Naval Station Davao), Panacan, Davao City – Headquarters of NAVFOREM

Naval Station Romulo Espaldon (Naval Station Zamboanga), Calarian, Zamboanga City

Naval Station Juan Magluyan (Naval Operating Base Batu-Batu), Panglima Sugala, Tawi-Tawi

### MARINE BASES

Marine Barracks Rudiardo Brown (Marine Base Manila), Fort Bonifacio, Taguig City, Metro Manila - Headquarters, Philippine Marine Corps

Marine Barracks Gregorio Lim (Marine Base Ternate), Ternate, Cavite – Marine Basic School Campus

Marine Barracks Arturo Asuncion (Marine Base Zamboanga), Zamboanga City

Marine Barracks Domingo Deluana (Marine Base Tawi-Tawi), Tawi-Tawi

Camp Gen. Teodulfo Bautista, Jolo, Sulu

# National Defence Strategic Policy as a Function of National Leadership

BY REAR ADMIRAL IAN CRAWFORD AO AM (MIL) RAN (RTD)

In the development of defence strategic papers the questions often asked are: "How does this defence strategy relate authoritatively with the other elements of national strategy? Where is the national strategic guidance?"

Also time and time again, and in leading article after leading article journalists and commentators bewail the lack of a strategic approach to particular issues. Governments in recent times have announced studies or white papers on defence, or relations with Asia, or infrastructure, the car industry or the Murray-Darling Basin; the list goes on.

Yet in all cases of particular issues these are elements of a wider strategic outlook. These matters and many others should be coordinated within a national strategy and clearly they are not.

## Leadership and How to Make it Work

I wonder whether we really understand leadership and how to make it work. Leadership is not just a personal attribute; it requires a structure to support the function. And we are not going to get to a national policy by random snatches of what we should be including, no matter how convincing the arguments for the separate functions.

What this country needs is the national leader's authoritative guidance at the national strategic policy level, provided of course this guidance stems from a structure and process deliberately established for national strategic policy development. We lack a strategic perception of what we should be doing supported by an objective evaluation of issues avoiding

the debilitating intrusion of narrow perceptions which can divert us from better courses of action.

There is a well-known aphorism: "Every day we are facing opportunities, cunningly disguised as threats". Instability in any government can mean a lack of cohesion and authority. Sometimes self-interest can derail a commitment to the general interest. Internationally this phenomenon in modern societies can be identified as the failure of democracy. Is it time to have a look at the way we meet the principles of democracy in government?

The future of Australian governance has been a hot topic in recent years, generating calls to review the Constitution and formats for government. It has been foreshadowed that we shall get round to this in connection with a number of sub-sets of the government function. Now is the time to air some thoughts on this.

How we achieve the government function of strategic planning depends

on the organisational structure that reflects the administrative arrangements and responsibilities. If you get the organisational structure right you have a better chance of getting the planning outcome right than through a defective structure.

We have always had leaders in government. Nobody could rise to the position of Prime Minister unless he or she had the attributes of leadership. What we do not provide is the supporting structure for leadership at the chief executive level.

This goes far beyond the dimensions of the Prime Minister's office. It calls for an adequately resourced Prime Minister's department to confer authority on national strategic policy. And this resourcing calls for the highest quality staffing incorporating intelligence, judgment, objectivity and integrity, qualities that we cannot be confident are generally available through electoral and Public Services selection processes.

*Getting the direction right for policy. The Grand Design, from Yes Minister. (Gerald Scarfe)*





## **Weaknesses in the Australian Model**

Our present structure is prone to the divisive and de-stabilising influences of self-interest. The authority of ministers to contribute their departments' perceptions of their functions' contribution to a national strategy empowers them to disruptive practices, which can reflect the aspirations of their Public Service advisers and their personal ambitions.

In Australia many of the determinations contributing to strategic issues are undertaken by agencies or committees located in functional federal departments. These strategic issues are usually endorsed at Cabinet level but there is little evidence that they are ever drawn together in a national plan to guide the functional departments.

The questions can be asked how objective and national in perspective are assessments made by agencies or staffs embedded in specialist departments and how penetrating can committees be when they are staffed from within a single department or in the case of Cabinet lack the supporting staffs to make detailed analyses? National strategy needs go beyond analysis of the work of others; it requires *ab initio* development drawing on fundamental factors. Of even greater importance there needs to be cohesion in whatever emerges amongst the different elements of national planning.

Even within the Public Service administration where 'without fear or favour' has been a byword for the integrity and objectivity of the advice from Public Service officers, there can be no doubt that for many officers the interests of a government department, in its turf battles with other departments and the competition for budget money, can cloud perceptions

and judgments of national interest. I have often noted with disappointment the way agencies have presented information to suit sectoral aspirations, which at best corresponded to a narrow perception of the strategic needs of the nation. It is well recognised that the control of information confers power.

There is a need in any government structure at the national chief executive level for a central planning function with responsibilities for a national plan, information and studies, which would guide the organisation and activities of functional departments and by extension the whole country through a balanced and authoritative perception of the national interest. Corporate structures in business provide models for what we should be seeking. But we can also look at what happens elsewhere in the world.

## **An Alternative Model**

France provides one model that should be included in whatever structure we consider. No one country has a monopoly of good government practice but France has some concepts worth considering. And we should not limit ourselves to looking at the French structure.

My interest in the potential benefits to Australia of the example of the administrative arrangements in France outlined in this article started when I was Australian Defence and Naval Attaché in Paris. I found that for information and negotiations on certain strategic matters and weapons I was referred by Ministry of Defence officers to the Secrétariat Général de la Défense Nationale.



At that time it had a five star (equivalent to four stars in British, US, Australian rank structures) air force general as Secretary-General, significantly the same rank as the French Chief of the Services Staff, but today it is a senior public servant with a four star (NATO three star equivalent) general as assistant. The Secrétariat Général de la Défense Nationale was located organisationally in the office of the Prime Minister.

In France the responsibility for a central planning function is established in the office of the Prime Minister. In informal discussions with French officials I became aware of the Commissariat Général du Plan also in the office of the Prime Minister. The function and organisational location of the Secrétariat Général de la Défense Nationale grew from the perception – at the time when de Gaulle was President of France – that as well as the shortcomings in the French Army at the time of the surrender in 1940, the institutions of France were totally unprepared for war and that the function of responsibility for war preparedness for economic,

*A great leader. World War II wire photo of French leader Charles De Gaulle leading a Paris victory march celebrating the Allied invasion, which forced the Vichy government to flee (Public domain)*

infrastructure and social matters as well as military matters required cohesion and the authority of the office of the Prime Minister. In its present format the Commissariat Général du Plan is the Commissariat Général à la Stratégie et à la Prospective (CGSP).

The Commissariat Général à la Stratégie et à la Prospective (CGSP) has responsibilities for central planning for national economic, social and infrastructure functions. An example of his central planning function is that in the time of socialist adherence to concepts of a planned economy and nationalised industries the Commissariat influenced national strategic decisions to progress to privatisation of government-owned industries.

To-day, through assessments, studies and the comprehensive use of information the Commissariat Général à la Stratégie et à la Prospective makes available the product of its undertakings to government departments and industry. This provides the information necessary for decision-making on such matters as infrastructure, regional development, social conditions and sourcing energy and materials, so that all government departments and industry have access to consistent and authoritative information from an organisation that is located beyond the reach of the influence of ministry or industry sectors.

In the French alternative the office of the Prime Minister sets the national policies and the ministries implement them. This is consistent with sound management practice used in the corporate world.

## *A Way Ahead for Australia*

In Australia such matters as the need for infrastructure, a national transport strategy, regional development, energy,

water, the environment, the development of secondary industry, defence industry all have relevance to each other in a balanced way within whatever purports to be a national plan or strategy.

They should be guided by studies and information, which are free from the influence of the at-times narrow perceptions of the department in which they are located. Inter-departmental committees cannot achieve the same outcome as dedicated staffs with access to the information needed for the national leadership's responsibility for a balanced perception of the national interest.

With Australia's federal structure there is a different approach to decisions having national relevance but it is arguable that the country as a whole, Commonwealth departments, State governments and industry would benefit from drawing on consistent information from an organisation that is located beyond the reach of the influence of narrow ministry or sectoral interests, and leading to strategic policy direction with the authority of the Prime Minister. This would not be a resource-expensive new function but a restructuring of existing functions, probably with savings through rationalisation and the elimination of monitoring functions in other departments.

There are some who maintain that the needed cohesion of departmental activities to represent adherence to a national plan could be achieved in the Cabinet. This was influenced by United Kingdom perceptions. For reasons of the lack of dedicated staff for a central planning function in the Cabinet and the lack of a continuum of authoritative guidance it is impractical to expect Cabinet to achieve a coherent central planning function. Neither



would this be, as perceived by some, a planned economy, understandably repugnant to advocates of free enterprise.

Political special interests are another thing and of course grass roots political activists would not wish to surrender their political aspirations to the 'frank and fearless' policy development by government functionaries. Political aspirations can be accommodated once an objective assessment has been completed. Or perhaps injected as a factor at the outset. The phenomenon of politics' getting in the way of good governance has always been a hot potato but we stand a better chance of getting it right nationally if we get the fundamentals right and make adjustments for political perceptions rather than fudging the fundamentals at the outset.

It is no longer acceptable to the thinking community to excuse the lack of forward planning involving difficult decisions on the political phenomenon of the three year term of a Federal government.

We have an Office of National Assessments. Let us now take it the next step to a whole-of-government strategic planning function, located within the Department of Prime Minister and Cabinet. Such an approach in Australia would not require a departure from the cherished Westminster system of ministerial

*Whither new direction for the country and defences. LHDs to the fore? (Public domain)*

responsibility; it would be merely a recognition that in sound corporate structures, whether business of government the chief executive has to give the lead and authority for corporate policy and strategy and should be resourced to achieve this. ➤



*Rear Admiral Ian Crawford RAN (Rtd) served in the Royal Australian Navy from 1949 to 1989; one the the staff of the Australian Naval Attaché, Washington for the RAN's DDG program; in HMAS Sydney during the Vietnam War, and was the first Australian Defence and Naval Attaché, Paris from 1978 to 1981 in connection with the technical support for the building of HMAS Success. As the Chief of Supply Department of Defence he initiated organisational changes to reflect the dual responsibility for the supply function to the Chief of the Defence Force as well as well as the Secretary, Department of Defence.*

 The advertisement features a large, high-angle photograph of a submarine moving through dark, choppy water, leaving a white wake. The Thales logo is positioned in the upper right corner of the image area. Below the image, the text 'SMARTER AND SAFER UNDERWATER SOLUTIONS' is written in large, bold, blue and white capital letters. Underneath this, the phrase '...Since the beginning' is written in a smaller, white, sans-serif font. At the bottom of the advertisement, contact information is provided in a white sans-serif font.
 

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Photograph © Australian Department of Defence



# An *Ocean* for my Kingdom

BY ROBERT CUTHBERT BLAKE

The story of *HMS Ocean* has probably not yet been fully told – from humble origins as a sea transport Ro-Ro vessel to get an Embarked Military Force (consisting of British Army / UK and Netherland Royal Marines) on their one-way ticket to Norway<sup>1</sup> (and hopefully back) after 30 days, to Flagship of the Royal Navy.

The story was never intended or designed as such. Hence in this story of the ugly duckling – for by any stretch of the imagination *Ocean* is an ugly ship compared, say, to *HMAS Canberra* and *Adelaide* – there is a degree of poignancy and greatness. Like any story of a ship, *Ocean* reflects the technology and the technology, the crew and social dynamics of the time. She would not be designed and built today – and therein lies the greatest pity. For, at its heart, *Ocean* was an experimental ship based upon a principled understanding of Amphibious Warfare and a desire to get Royal (as in Royal Marines) back to sea in their own dedicated ship.

This article examines the *Ocean* story from its bastard birth through build to gaining its operational spurs and, ultimately, to Flagship. The reverse of the motto *intentio non casu*<sup>2</sup> (or by intent and design; not accident or cause) applies to *HMS Ocean*. Her wider application and current role was never by design or initial intent. The sadness is that the lessons of her *being* were never learned by the UK and it may now be too late for the Royal Navy to do so.

Inauspicious Beginnings

Britain in the 1990s was 'another country'. The greatness

of the Thatcher years – for those of us who remember the 1970s there was a profound greatness to her achievements – had been eclipsed by the end of the Cold War (brought about by the remarkable rapprochement<sup>3</sup> enabled between Mrs Thatcher, President Gorbachev and President Reagan); the first Gulf War; the early 1990s recession and the dismal (Ed: John) Major Governments with its failure to intervene with France effectively in the emerging Bosnian conflict.<sup>4</sup>

Within the failure of UK to engage in the Bosnian conflict lay also the seeds of what would become *HMS Ocean*. As is so often the case in British History, *Ocean* was essentially an emergent warship building upon the skills and competencies and drive of a small number of principled and dedicated senior officers – more by accident than design. In the case of *HMS Ocean*, she owed much of her existence and final designs to a senior and much respected Royal Marine Officer whose aim was to get 'Royal' back to sea in their own, dedicated warship. If you have ever wondered why *Ocean* has a Phalanx proud and centre on its bow, it was to prevent a ski-jump being placed there – so constraining, by design and build, the ship's role to that of a rotary wing platform. This was both a blessing and a limitation as future events unfolded.

The design of *HMS Ocean* was in every sense a bastardisation. Its hull ultimately took from the designs of the Through Deck Cruisers – *HMS Invincible*; *Illustrious* and *Ark Royal* – now all sadly decommissioned as a result of the UK's disastrous and poorly thought 2010 Strategic Defence Security Review (SDSR).

Disastrous for four specific reasons to do with the fundamental failures of the UK MoD and its political classes: first, just as other nations were moving towards a form of Asymmetric Offshore Counter Balancing (AOCB) and a reinforcement of maritime force structures the UK did the opposite; secondly, the UK took the decision a) to get rid of its remarkable GR9 Harrier Fleet Air Arm capability (and its pilots) in favour of Typhoon and the RAF; thirdly, to cut back proportionally much more on the RN than the other forces and, fourthly, to continue investing in poor, (militarily, industrially, politically or economically) unaffordable and over expensive designs such as the Type 45 and *Queen Elizabeth* Class. *Hood*-like, these designs will never deliver more than the sum of their parts and will be obsolete from the day they finally enter service: both designs being simultaneously too big (for what they are intended for) and too small (to



*HMS Ocean showing landing craft on davits and stern ramp deployed. (RN)*



## An *Ocean* for my Kingdom

survive the challenges of 21<sup>st</sup> Century warfare).

In many regards, the decision to get rid of the Harrier Fixed Wing Capability – during a last weekend botch of the SDSR by the PM, then Chief of Defence Staff (an Airman) and a major manufacturer with nothing more to be had from the Harrier – bore the hallmarks of the decision to get rid of the TSR-2 Tactical Strike/Reconnaissance aircraft in the 1965 Defence Review. As per the orders of the then UK Chancellor (Dennis Healy), the jigs for the TSR-2 were dumped in the mid-Atlantic trench to prevent any hope of rebuilding. A form of Soviet-Marxist, Turnpike economics for brutally re-capitalising labour by maximising capital investment in alternative export markets.

In the case of the Harrier, the FAA and RAF pilots were sacked and the GR9s – the preferred weapon of choice (flown by Navy and Marine (USMC/RM) pilots) in Afghanistan – were broken down into parts and gifted to the USMC. There is another story to be told and the capability could have been kept alive – both pilots and machines – to be available in need / for the QEII class but this was refused by the MoD, the Treasury and its elite (Oxbridge trained) senior public servants and incompetent politicians. The Harrier may as well have been buried alongside the TSR-2 in the mid-Atlantic.

I digress, while the hull took on the form of an Invincible Class Carrier, its fittings decidedly did not. In many regards the ship got the worst of both worlds: the minimum

of Naval Engineering Standards and those required to keep the ship in class by Lloyds Register. For example, watertight boundary requirements were less than those expected of a warship; while accommodation standards were less than those then being applied for commercial shipping.

Despite the shipbuilder indicating that they could provide at the same cost civil-type accommodation for the crew and embarked military force with more bathrooms and comfort, this was turned down by the then MoD Procurement Executive (PE) in its pursuit of Naval Engineering Standards! It is also important to recall that the ship was being built in the late 1990s, no office skyscraper then under construction would not have been fitted with a copper or even fibre-optic LAN. Yet no such provision was made for *Ocean*, so requiring very expensive post-build retro-fitting of cables and watertight, through deck glands at 20-30 times the cost of fitting during build.

Finally, for those of us old enough to remember Swan Shipbuilders on the Tyne (that built the last *HMS Ark Royal*), the cost of political shenanigans at the time and a drive to beggar thy

neighbour economics, led to the receivers being called in when the UK government awarded the contract to VSEL. Subsequent investigations into the decision to award the contract to VSEL suggest that two different philosophies were at play: one adopted by VSEL that the design 'was a merchant ship with military hardware bolted on'; the other taken by Swan Hunter, that this was a military vessel. Both assumptions were right and wrong – the result was that many of Swan Hunter's finest shipwrights and designers ended up crossing the Pennines and working for VSEL in Barrow (where *Ocean* was fitted out; its hull having been built in the Kværner Yard on the Clyde).

Decidedly Not the First XI

Charles Handy, the Irish organisational-behaviour philosopher, maintains that if one manufactured a First XI, then it would be unlikely to function as a team, essentially because each player would be competing for the same resources and one would end up with unhealthy hyper-competition. Sounds a bit like the current Wallabies, perhaps? The first plank holders (or crew) – no names; no pack drill – of

*HMS Ocean* (centre right) in a five-country multinational fleet, during Operation Enduring Freedom in the Oman Sea. (US Navy)





*HMS Ocean* were decidedly not from the RN's Top Drawer; in fact quite the reverse. As one Midshipman put it shortly after the ship was launched (and after its first operations under the Red Ensign, following Hurricane Mitch), 'all the officers [including at least one of the Officers Under Training] had been Court Martialled, Decorated and/or both.'

The same (not from the Top Drawer) was not necessarily the case for the Royal Marine Officers (other than Decorations and Court Martials) – although, in truth, many RM Officers were quite content by their focus on Land Centric operations in the Balkans and in Northern Ireland, and had rather taken their eyes off the Amphibious Ball. What one had, though, in *HMS Ocean*'s first crew was a remarkable degree of sheer professionalism and a determination to understand the amphibious systems and make the ship work – supported, also, by a functioning (in the parts where it counted) MoD PE; Defence Research Base and shipbuilders.

By 1998, despite some setbacks and delays, *HMS Ocean* was ready to sail from Barrow but MoD PE and the Shipbuilder – for various contractual and indemnity reasons – were dragging their feet in terms of releasing the ship to the RN for its Part IV Trials. This may sound rather familiar – noting, though, that in the case of *HMAS Canberra* the crew were not allowed on board during the same stage in its build programme.

However the First Crew may be described, it was decidedly 'Old Navy' and particularly the Commander, who had been with the ship from the start. A penalty of long builds with crews standing-by in non-Base ports is that sailors have a tendency to 'go native.' In other words, they start enjoying the comforts of being ashore rather

too much! So the Commander was effectively resisting three forces: the comforts of sailors-gone-to-shore; the senior naval marine engineer officer's focus on quality and command (in build), which he would rescind on the ship going to sea, and the MoD PE / Builders reluctance to let the ship go. The Commander, in true Nelsonian fashion – with the full support and connivance of the then First Sea Lord, Sir Jock Slater – cut *Ocean* free of Barrow and, despite all the threats and warnings, sailed for Portsmouth. It was to be a short but important operational test, ending in Portsmouth for an emergency docking when a misaligned shaft was replaced and repaired.

From the start, there was an air of independence and the rogue in the semblance of *HMS Ocean* and its various crews. The MoD PE lead was particularly frustrated by the fact that *Ocean* had been cut out of Barrow and, the more so, that the Crew had created a close working relationship with VSEL that was actually driving the designs and fitting out of the ship; so excluding the MoD PE and its rather out-classed project managers.<sup>5</sup>

But this was nearly twenty years ago, when the spirit, thinking and designs of Blake, Nelson, Fisher, Cunningham and Fraser had yet to be driven out of the Royal Navy. Forever people were telling the First Crews that '*HMS Ocean* could not (e.g., take CH47 Chinooks)', 'would not ever do this that and the other (e.g., deploy Attack Helicopter as the Platform of Choice)'



and 'was never intended, designed to do otherwise (e.g., as a Flag Capable Platform)'. In every particular regard they have been proven wrong.

Yet in the summer of 1998, as *HMS Ocean* finally made its way up Plymouth Sound to its Base Port, the welcoming could not have been more under-whelming. Despite being one of the most important ships to enter the Royal Navy since the 1980s, there was not one call-round for officers and senior ratings from the assembled ranks of Frigates and Destroyers then alongside. Not one. Rather, there was a combined critique about the loss of their dockside wharfs to make room for *HMS Ocean*.

#### Operations and Beyond

*HMS Ocean* sailed that autumn of 1998 to complete its Part IV operational sea trials in the West Indies. The ship has been operational ever since, from being redirected to

*An Army Air Corps Apache helicopter takes off from HMS Ocean during Operation Ellamy, the UK's contribution to UNSCR1973 in the Mediterranean Sea near Libya. (RN)*

*A Sea Harrier FRS.2 of 800 Naval Air Squadron lands on a CVS aft of four RAF Harrier GR.7s during a combined embarkation by several squadrons from Joint Force Harrier (RN)*





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support humanitarian relief operations post Hurricane Mitch off Nicaragua, through to Sierra Leone (I and II); the Amphibious Assault of Afghanistan in 2002; the amphibious led sweep through the Al-Faw peninsular at the start of the 2<sup>nd</sup> Iraq War; to Libya; to support of operations in Afghanistan and Iraq through to today and becoming the Flagship of the Royal Navy. One of those things we were told 'would never happen.'

Critical to the success of this was a principled design and understanding of three component systems: the Air Traffic Control Systems (ATCS); the Explosives Support System (ESS) – including the proving of the Lynx-Tow combination from sea – and the Communications Support System (CSS), including a satellite TV system gifted to the ship by Sir Donald Gosling (of UK NCP fame) and fitted by the crew, which proved to be an essential morale and strategic communications force multiplier during Sierra Leone; incorporating Flag and EW (Cyber) systems.

Each of these systems had to be integrated and each was designed and built in situ (by the first crew) – something we were blessed by the support of other Services (and those pockets of excellence in MoD PE and Defence Research (before it became Dstl and QinetiQ) then in existence) and excellent Captains in doing. The ATCS is more important in an LPD or LPH, since one is dealing with soft-skin aircraft such as helicopters and the radars (then/still in use) were not designed for such purposes; had blind spots, complicated by the fact that there were not enough dedicated frequencies to achieve positive control of more than a few helicopters at a time.

None of this was truly appreciated on build – and led tragically to the loss, in 2003, of two Sea Kings operating

from *HMS Ark Royal* off Iraq. Despite the warnings from *HMS Ocean's* experience and near identical ATCS, the 2007 Inquest was told:

A Royal Navy air traffic controller did not warn the pilots of two Sea King helicopters they were on a collision course because he thought they could see each other, an inquest into the worst accident involving British service personnel in the Iraq war was told yesterday...the radar on the carrier *Ark Royal* often showed aircraft to be closer than they really were: "Although it looks like they are flying towards each other, they can miss each other by a considerable margin".

Names have not been mentioned in this article but those who know, know. The sadness and tragedy is that the Royal Navy failed to learn and or to promote the experience and skills developed by the *Ocean* crews. Not one senior engineer, for example, who took *HMS Ocean* from build to operational status – the last to take a capital ship from build – was employed on the QE2 Class.

There are other aspects. Sierra-Leone was a major *All Arms* success for UK, orchestrated from *HMS Ocean* – yet every one of the decorations issued was reduced for the crews/staffs of *HMS Ocean* by at least one level. Instead, the one DSC was awarded to the Frigate Captain who had nothing



to do with the campaign and arguably put his ship unnecessarily forward and in danger. The people who should have been awarded by top tier (3\*) promotion (the Captain of *HMS Ocean* and the Commodore of the Amphibious Task Group, a FAA Pilot and a Submariner respectively) who led the campaign were in almost all cases denied: considering the two 'Sir Robs' who served in *HMS Ocean* as Commando COs, both should have gone on to be at least CINCFLEET, Second Sea Lord and/or Vice Chief. The Frigate Captain, of course, proceeded ever upwards – fitting the mold of the simple sailor, Frigate and Destroyer Queen and member of the Master Race. This fixation on the Master Race, apartheid class and rank rather than ability conscious regime has proven hugely destructive to the Royal Navy and perpetuates still – to the detriment of the Service and Country.

*US Marines ride the forward aircraft lift into Ocean's hangar deck during an exercise in 1999. (US Navy)*

Ultimately, the *HMS Ocean* design was not bold enough. It was a step in the right direction, to move radically towards what has been described as *Versatile Modular Systems* (VMS) where the platform is largely separated from the systems and commercial (where possible) *dual-use* design are used – thereby retaining the sophistication in systems integration and hi-tech and the affordability provided by perfectly viable commercial platforms. *HMS Ocean* was also designed with a 15 year life (then extended to 20 years). By maintaining such a tempo, one drives out Defence Cost Inflation; retains skills and maintains affordability and numbers in the design and class.

*HMS Ocean* should have been decommissioned between 2010 and 2014, based on original designs. Instead she is being extended at additional unfunded cost to provide a stop-gap until the QEII class finally achieves FOC, if ever. The key lesson was that *Ocean* should have been replaced by a fully VMS Design – in numbers – based upon Container Ship type hulls / engines and sophisticated, bespoke modularised decks, weapons systems and crews. The designs exist and, what is more, for the cost of two QEII's, UK could have purchased a Fleet of over 100 Ships (Flat Tops; Heavy Lift and FF/DD/MCM) – crewed under the Three Fleets Model; funding raised

through a costed commercial model. In other words, the VM Fleet would be scalable and replicable – and would be what we were doing today if we were at war, like the first *HMS Ark Royal* carrier!

Since UK is bankrupt and at war (without understanding the war it is fighting), the mystery is why these designs have yet to be taken up. Perhaps *HMS Ocean* first crew was also to blame – for identified by some of the expert Scientific Civil Servants at the time, they engineered the ship into something it was never designed/ intended for.

Finally, RAN has also gained from the *HMS Ocean* experience and the tragic demise of the RN, for amongst many of the Lateral Transfers joining Navy are those who cut their teeth in *HMS Ocean* as Royal Navy and Royal marines. These are some of the finest Officers, Marines and Ratings to come from the UK and we (ADF) have an opportunity to build on and develop their skill sets as we build our own Amphibious Force. But looking beyond Canberra and Adelaide, RAN also need to take forward VMS designs and crewing models of its own as it seeks to maintain and pacify the vast reaches of the Pacific.

## HMS OCEAN

### General Characteristics

**CLASS AND TYPE:** Landing Platform Helicopter

**DISPLACEMENT:** 21,500 t (21,200

**LONG TONS:** 23,700 short tons)

**LENGTH:** 203.4 m (667 ft)

**BEAM:** 35 m (115 ft)

**DRAUGHT:** 6.5 m (21 ft)

#### PROPULSION:

- Two Crossley Pielstick V12 diesel engines
- One Kamewa bow thruster (Currently removed)
- Speed: 15 knots (28 km/h) cruise
- 18 knots (33 km/h) max

**RANGE:** 8,000 miles

#### BOATS AND LANDING CRAFT

**CARRIED:** 4 × LCVPs

**CAPACITY:** 40 vehicles

**TROOPS:** 830 Royal Marines

**CREW:** 285 + 180 FAA/RAF

#### SENSORS AND PROCESSING

**SYSTEMS:** Type 997 Artisan 3D

Radar 1008

2 × Radar 1007

Electronic warfare and decoys: UAT

Electronic Support Measures

#### ARMAMENT:

- 4 × 30mm DS30M Mk2 guns
- 3 × Phalanx CIWS
- 4 × Miniguns
- 8 × General purpose machine guns

**AIRCRAFT CARRIED:** Up to 18

helicopters:

- Westland Sea King
- Westland Lynx
- AgustaWestland AW159 Wildcat
- Merlin
- Boeing Chinook
- Westland Apache

#### AVIATION FACILITIES:

- Large flight deck
- Hangar deck
- Helicopter lifts
- Vehicle deck

*QinetiQ's VAAC Harrier achieves world's first automatic landing on a ship (USN)*



## An *Ocean* for my Kingdom

### Further Technical Details

#### AIRCRAFT SUPPORT AND CARRYING OF LYNX / CHINOOK HELICOPTERS AND SEA HARRIERS

The ship has full facilities for 12 EH101 Merlin and six Lynx helicopters, plus landing and refuelling facilities for Chinook helicopters. 20 Sea Harriers could be carried but not supported. The flight deck is 170m long and 32.6m wide, with two aircraft lifts.

#### COMMAND SYSTEMS AND WEAPONS

*Ocean* is equipped with the BAE Systems ADAWS 2000 combat data system, Link 11, 14 and 16 communications, an Astrium (formerly Matra Marconi) SATCOM 1D satellite communications system and a Merlin computer link.

The ADAWS 2000 combat data system, installed on both *HMS Ocean* and on the Royal Navy's landing platform dock LPD assault ship, is compatible with the ships of the Royal Navy's front-line fleet.

The weapon systems include four Oerlikon/BAE twin 30mm guns together with three Raytheon/General Dynamics Phalanx Mk35 close-in weapon systems.

#### COUNTERMEASURES

*Ocean* is fitted with Outfit DLH, which includes the Royal Navy's active offboard decoy (export name 'Siren') in addition to standard chaff and IR decoy payloads.

The Siren decoy, from Selex Sensors and Airborne Systems (formerly BAE Systems), is an expendable radiating decoy, which provides a soft-kill defence against radar-guided missiles and is effective against single or multiple threats in the I/J wavebands.

Siren is programmed with a complex set of jamming ploys and threat-specific data immediately before firing and, post launch, deploys under a parawing for controlled flight. Siren uses a variety of jamming techniques in order to seduce the anti-ship missile away from

its intended target, using a high-gain, steerable antenna, to transmit the jamming signal into the main beam of the threat antenna(s).

*Ocean* is equipped with eight Sea Gnat radar reflection/infra-red emitting decoys. Sea Gnat was developed under a Nato collaborative project involving USA, Germany, Norway, Denmark and the UK for protection against anti-ship guided missiles.

The electronic support measures system is the Royal Navy's UAT from Thales Defence Ltd. UAT is a radar warning receiver and electronic surveillance system which provides targeting data and identification of hostile radar threats.

Also fitted is the Thales Type 675(2) ship-borne jammer, which has two antenna mounts to provide 360° azimuth coverage. Maximum elevation is 50° and the range is 500km.

#### SENSORS AND PROPULSION RATES

*Ocean* is equipped with the Selex Sensors and Airborne Systems Type 996 air and surface search radar. This is being replaced by the Royal Navy's new-generation maritime medium range radar (MRR).

In August 2008, BAE Systems Insyte (with Qinetiq) ARTISAN 3D E/F-band radar was selected for the MRR. The radar will be retrofitted to *HMS Ocean* this year (2015). Surface search and aircraft control radar is provided by two Kelvin Hughes type 1007 systems.

Propulsion is provided by two Crossley Pielstick 16 PC2.6 V 200 medium-speed diesel engines, rated at 23,904hp, with two independent shafts and a five-bladed fixed-pitch propeller. A 450kW KaMeWa bow thruster is fitted. The maximum speed is 18kt and the range is 8,000 miles. 🚢

*Global Naval Surface Combatants  
& Warfare Systems Market 2011-2021*

(Endnotes)

- 1 As part of the old Cold War NATO reinforcement of the Northern Flank, deployment.
- 2 Mott of the Advanced Research & Assessment Group (ARAG) is on Parliamentary record in Hansard as being one of the few organisations to have predicted the Global Financial Crisis a number of years beforehand – and subsequently closed down for telling truth to Prime Ministers Blair and Brown.
- 3 Which as records from the Soviet Union would not have been possible but for the fact that Mrs Thatcher secured victory in the South Atlantic in 1982 and successfully engaged the significantly Soviet-infiltrated National Union of Miners between 1984-1985.
- 4 'For most of 1992-1995, Britain stood aside while an internationally recognised state was attacked by externally-sponsored rebels bent on a campaign of territorial aggression and ethnic cleansing. It was her unfinest hour since 1938', see Simms B. (2001) *Unfinest Hour: Britain and the Destruction of Bosnia*. London: Penguin.
- 5 This came to a head shortly afterwards when the ship had to be evacuated on the failure of the Sewage Treatment Plants, which were exuding Hydrogen Sulphide into bilges and passageways. The then Chief of Defence Procurement (CDP) – an Engineering Admiral – decided to pay an impromptu visit and swept down like a dark gull onto *HMS Ocean*. He was met at the brow by the Commander and Captain and escorted to the wardroom to meet the Heads of Department for 'coffee and biscuits'. It soon became clear that this was not a meeting for coffee and biscuits – rather a tendentious, headmaster-type one-way transmission.

The Commander, one of those wonderful Irish trained Lawyers, was not going to take this nonsense lying down – and rightly remonstrated, only to be told that he (CDP) 'would have the Commander removed if he spoke out again'. Having delivered his delightful homily, the Admiral stormed out of the Wardroom to be escorted off the ship by the CO and Commander (still veritably shaking from the encounter). We humbled few gathered quietly in the wardroom pouring a stiff Plymouth Gin (neat of course) and finishing off the biscuits. The newly joined Commander Marine Engineer, having first had to evacuate the ship, was ashen – certain that his glittering career was now over. The Commander returned fuming and muttering dark threats about incompetent senior engineers and their ilk – and gratefully accepting a Plymouth. Father, a seasoned FAA Test Pilot who had stood by the Merlin Helicopter, came jauntily into the wardroom (having gained permission from the Commander) and looking towards us all said 'well I think that all went frightfully well!' It was what was needed – Father was clearly articulating that 'as far as Royal Navy, he and the First Sea Lord (in others words those who counted in the operational food chain) were concerned, we were doing all right'. The colour began to return to CMDR ME.

This was not the first and neither was it the last time that *HMS Ocean* was to be confronted by managerialist, methodologist, Gramscian-Marxist, rent-seeking, pen-pushing nay-sayers that now so sadly dominate in UK politics, the elitist senior civil service (many with Oxford PPE type degrees, like the polities), MoD, research, procurement, industry and the RN.



# World Naval Developments

BY NORMAN FRIEDMAN

In February, the destroyer *USS Kidd* fired a Tomahawk cruise missile, which hit a moving container ship. That might not seem terribly significant, except that the missile had no seeker, and the ship was being tracked by an F/A-18 which had no direct link to the missile.

What might otherwise be a routine test was actually revolutionary, the latest development in an evolving networked capability. It was part of what the Surface Navy Association called 'distributed lethality' at its recent meeting, and it parallels the new Naval Integrated Fires – Counter-Air (NIF-CA) which is now entering service. Both are attempts to maximize the net effectiveness of a combination of ships and aircraft. That is not a new idea, but the current applications go well beyond what we have had in the past.

The Tomahawk followed commands sent via Link 16, which directed it to a series of positions and ultimately into the container ship. No one would deny that a short-range seeker would improve the missile's hitting capacity against an evasive target, but the test shows that the large number of land-attack Tomahawks currently in the Navy inventory are also potent anti-ship weapons.

What is striking is that an enormous change in US Navy capability, from no long-range anti-ship capacity (other than from aircraft) before the test, has been transformed into a very considerable capacity. The F/A-18 which tracked the container ship could have tracked several ships simultaneously. It certainly had the ability to transmit back more than one ship track. For that matter, ship tracks could also have been generated and transmitted by a UAV, or by a combination of different sources.

The combination of disparate sources is the most interesting possibility. After all, the commander

who dispatched the missile did so on the basis of a tactical picture to which the F/A-18 contributed. Other aircraft and systems could also have contributed, particularly in a wartime situation in which the target was defended. That has enormous tactical significance.

In most warfare, the first warning of an impending attack is enemy reconnaissance dedicated to the particular target about to be hit. If a target and its track are revealed by ongoing routine reconnaissance, the first warning of an attack is the missile popping over the horizon. This is not as new as it may seem. During the Cold War the Soviets maintained an ocean surveillance system which was always trying to track major missile targets such as carriers. The US response was a surveillance system which picked up signals from Soviet ships and created tracks by linking up the positions indicated at different times.

In each case surveillance depended heavily on emissions from the target ship, and there was a real fear that a target might be operating near other ships. That is, the incoming missile or salvo might be soaked up by non-targets, such as lower-priority ships within a formation. The Soviets took this possibility so seriously that they sometimes assigned surface ships ('tattletales') to report where the high-priority targets were within a formation. After the Cold War ended, it turned out that at least some Soviet naval bomber units included special reconnaissance aircraft assigned to fly *into* carrier formations for the same purpose. They practiced this role, which probably explains low-level passes over US carriers, including one which caused the Soviet bomber to crash.

A combination of trackers, at least some of them capable of identifying the target, would solve the problem and also avoid alerting the victim. Distributed lethality is part of a much larger movement towards a distributed style of warfare in which every ship and airplane contributes both to the fleet's picture of what is happening and also to its ability to fight.

There are two keys, both within reach. One is that every ship and airplane has to know where it is. Otherwise its reports may confuse rather than clarify. In combat system terms this is the gridlock issue. It be-devilled computerized combat systems. There are various solutions in which computers keep comparing pictures until they match up. The simpler solution is the Global Positioning Satellite system – but it might become a wartime target.

The other key is the data links which tell the weapons where to go (and which also carry back reconnaissance information). For distributed lethality to work, virtually all air and anti-ship weapons have to be able to receive commands, because most of the time

*A Raytheon-built Tomahawk Block IV is launched from the USS Stethem (Raytheon)*



## World Naval Developments

the firing ship or airplane will not be the guiding one. Guidance will be a function of the fleet command, which has the overall tactical picture. That picture should be duplicated on board other ships and even aircraft, so that the fleet as a whole is not crippled by the loss of any of its ships.

The issue is how many weapons can be handled simultaneously on one network. The problem involved seems to have been solved; at one time Tomahawk was advertised as a successful application of Link 16, then it seemed that Link 16 nets were not sufficiently capacious. Now the problem seems to have been overcome.

Pictures are generally imprecise, so most weapons will need terminal seekers. The better the picture, the smaller the investment in such seekers. In the case of the container ship, no seeker was needed. The higher the speed of the target, the more frequent command updates would have to be, and at some point the system would break down. That point would determine how good the seeker on the missile would have to be.

The faster the missile, incidentally, the less important constant updates would be. The projected new hypersonic anti-ship missile would need less than a subsonic Tomahawk. The picture concept, incidentally, would make it easier to use a single missile to strike both land and sea targets, its anti-ship seeker turned off in the land attack case (there may be important differences in what sort of warhead is needed, however).

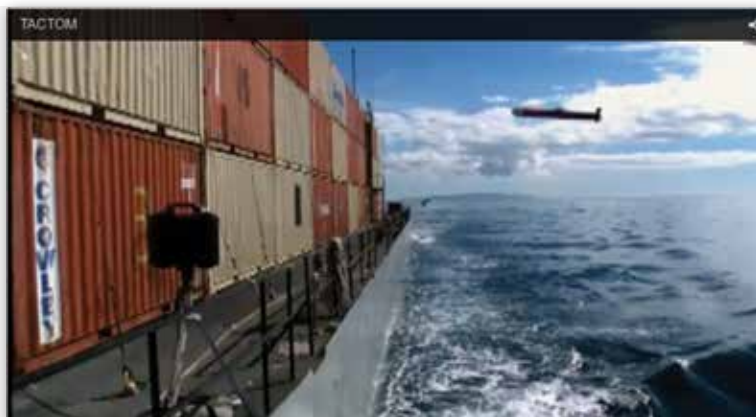
In each case the idea is the same. An individual ship or airplane has finite capabilities, both in sensing and in attacking. How can we make the most of them? Handling each airplane and each ship as a separate entity which must detect and engage a target limits the number of targets a fleet can fight. It does not make the best use of the overall

capacities the fleet has.

For example, an F-35 is a fighter-bomber with an unusually sophisticated electronic surveillance system. In theory the point of the system was to enable the F-35 to detect and bypass enemy air defenses by forming a comprehensive picture of what it faced (the system is also well adapted to jamming those defenses). However, an F-35 in a Combat Air Patrol would be well placed to detect the radars of incoming attackers. It might be able to fire several long-range missiles at them and also to jam their attack radars. In that case its contribution to fleet air defense would be limited by factors such as its own ability to close with the attackers before they released their own missiles.

The fleet has other airplanes and also missile-firing ships. Some of them cannot engage the incoming enemy because it is below their horizon at maximum missile range. The current CEC system was conceived as a way of overcoming such limitations by merging the air pictures created by several Aegis ships. The current NIF-CA idea extends that concept.

We can think of the F-35 mainly as a source of information about what is coming. The fleet's air defense system can use its information to clarify the picture of the quickly-evolving air situation. In that case the electronic surveillance system on board the F-35 becomes a valuable fleet air defense asset. We might also, incidentally, wonder whether the same system would



*Video still of the missile about to impact (USNI News)*

be even more valuable on board a long-endurance UAV.

Focusing on the information we can obtain from the targeting radars on board enemy bombers suggests that we may want to shape our own tactics to force him to use those radars, by denying him the advantages of longer-range sensors not directly connected with the bombers. That was certainly a US Navy priority during the Cold War against the Soviets. If we are developing the systems we need to face other sophisticated enemies now, the Cold War tactical experience – properly updated – would seem relevant. The Cold War showed, for example, that the Soviets depended heavily on passive electronics to detect targets among the mass of ships at sea. We learned to shut down our emissions and also to decoy.

The fleet can base its response to an incoming threat on the picture all its assets, including that F-35, create. In many cases those assets are not well adapted to the particular threat. Some fighters, for example, may not have the radars they need to detect the incomers

*The Tomahawk IV about to hit the target container on the ship (USNI News)*





in time to intercept. However, they may be in position to launch long-range missiles which can destroy attackers.

In an integrated fleet, the airplanes *and their missiles* would all be subject to commands based on that integrated air picture. Isn't that exactly how *Kidd* hit the container ship? She fired on the basis of an integrated surface picture. The F/A-18 was not carrying weapons; it could not have hit the ship in any case. It was carrying a radar which offered the essential input to the surface picture on the basis of which the missile was fired. In this case, incidentally, the F/A-18 could identify the target and thus avoid the main problem of long-range anti-ship missile fire, which is the possibility that a missile will hit the wrong ship. That problem was one reason the US Navy abandoned the anti-ship Tomahawk in the first place.

Enemies shoot back. Distributed lethality is about how to keep fighting despite losses, by getting as much as we can out of all our assets. In that case no individual ship or airplane is so crucial that its loss wipes us out. In the past, the US Navy has led the world in its ability to meld its assets together for maximum value. Systems such as CEC and Link 16 are part of that story. The *Kidd* missile strike is its latest chapter. 🚢



*Norman Friedman is the author of The Naval Institute Guide to World Naval Weapon Systems*

*The Royal Australian Navy frigate HMAS Anzac deployed on NORTHERN TRIDENT in March 2015, representing Australia at Centenary of Anzac commemorations in the Mediterranean and engagements across a number of international ports. The six-month deployment highlights a century of Australian military service, showcasing Australian technology, and provides opportunities to interact with foreign Navies with visits to over a dozen countries. HMAS Anzac enters Brindisi harbour. (Courtesy RAN)*





# ANZAC Frigate Upgrade sustains WA jobs

BY SERGE DESILVA-RANASINGHE AND MITCHELL SUTTON

A key example of the Department of Defence's commitment to harnessing WA's defence sector is the ANZAC Frigate upgrade. Operating out of the Australian Marine Complex at Henderson, the Systems Program Office for the ANZAC Class Frigate, referred to as the 'ANZAC SPO', is one of the most important defence industry programmes in Western Australia.

A stable of major defence players including: BAE Systems, Saab Australia, CEA Technologies, Naval Ship Management Australia (NSM), which is a joint venture between Babcock and UGL, in conjunction with the Department of Defence, provide maintenance and system upgrades for the nation's eight ANZAC Class frigates, in a contract worth over \$350 million.

"The core business is run out of here in WA," says the SPO's Engineer Manager Robert Jackson, "It's actually

cheaper and more efficient to have everything installed and maintained in one place."

The Henderson Australian Marine Complex precinct has been vital to the ongoing success of the SPO, as has the pool of skilled labour created in WA by the resources boom. The Common User Facility and BAE's shipyards at AMC are considered to be a national asset, ranking in importance with Fleet Base East and Newcastle.

"Our Navy is supported by a world class facility that will deliver for decades to come and has the industry grunt to turn ideas into war-fighting excellence," says Captain Wendy Malcolm, Director of the ANZAC SPO programme. "I look back at the courage of the WA State Government to invest in the Henderson Common User Facility and applaud them."

Combined, the CUF and BAE facility are capable of docking up to

six frigates or submarines at once.

Additionally, the facility's floating dock is the largest in Australia, and could potentially be upgraded in the future to take vessels as large as the new Amphibious Assault Ships (LHDs). "There's a very significant docking capability here that doesn't necessarily exist elsewhere," says Mr Jackson.

Skilled labour has also been a large attraction, with workers qualified in everything from aluminium welding to fibre optics easily sourced thanks to the large oil and gas industry. The majority of these subcontractors are local SMEs.

"From my viewpoint it's great," said Jackson. "You have all the subcontractors, the skillsets, sub manufacturing here that is all within a stone's throw of the facility".

Captain Malcolm concurred: "The 'can do' attitude of the WA workforce leaves the rest of the nation in its wake. They continually step up to the mark to

ANZAC frigate  
HMNZS Te Kaha  
(Navy)



deliver award winning capability in our warships.”

The work is complex, with around 70 public servants and military personnel, and between 150 and 250 contractors working directly on both the sustainment of existing vessels, and the generation, installation and testing of new capability. They are guided by a central Capital Projects office in Canberra and assisted by a small maintenance team in the East, which handles minor work on the other three ANZAC Class frigates home-ported on the east coast.

Things can easily get complicated, with the teams working on as many as 100 individual projects at a single point in time, all of which have to integrate perfectly with the ship's existing systems and each other. “They all consume power, they all take up space, and they all interact with various other systems on the platform,” Mr Jackson said. “The whole ANZAC project is a challenge.”

The most significant recent project for the group has been the Anti-Ship Missile Defence (ASMD) upgrade, first declared in 2003 and commencing work in 2010.<sup>1</sup>

Over a seven year period every one of the Navy's eight ANZAC Class Frigates will be significantly remodelled in order to improve the vessel's ability to thwart anti-ship missiles. Around 30% of the ship's compartments are modified, with a complete remodelling of the upper deck and the installation of the CEA designed and developed Phased Array Radar, new navigation radar system, combat management system, infrared search and track system, and their attendant support infrastructure.

The upgrade takes around 12 months to install, followed by three to four months of testing, with two

ships being outfitted at a time. Other related projects worth around \$65 million are also being undertaken to improve communications and data capability and to increase the ship's weight margin to boost its capacity. Mr Jackson notes that the upgrades will make the ANZAC “One of the most capable platforms of its size in the world. It is a compact frigate and the Navy have it jam-packed. They have maximised the full amount of capability on the platform to deliver a flexible and powerful warship.”

There is some future potential for WA to be a destination for additional naval industry work, with the possibility of more ships being based at *HMAS Stirling* astride a solid industrial base located at Henderson. Already, WA is under strong consideration to host the upcoming the ANZAC Class Communications and Platform Systems Remediation programme, which will be done as part of the ANZAC Block Upgrade Programme to commence in 2017.

“They've really got to determine the size of the Navy they want over the years. At the moment that could be as extreme as bringing an LHD, or an AWD over here, or it could be as minor as simply upgrading the facilities to enable the those things to dock here in the future,” said Mr Jackson. “The good thing is that it's creating an industrial base that can be utilised, which is good, because it's bringing a lot of skilled labour here.” 🚢



*Serge DeSilva-Ranasinghe is a security analyst, consultant and a Research Fellow at the Perth USAsia Centre, University of Western Australia; and non-resident Fellow at the National Security Institute, University of Canberra. Mitchell Sutton is a security analyst and consultant.*

<sup>1</sup> <http://www.naval-technology.com/projects/ANZAC/>

# DANISH NAVAL GROUP

*A Danish Naval Task Group of seven ships visited Kiel Naval Base in Germany recently during the Danish naval exercise FLOTEX.*

*The Danish Navy squadron consisted of three new Iver Huitfeldt-class air defence frigates: HDMS Peter Willemoes*

*(F 362), HDMS Iver Huitfeldt (F 361) and HDMS Niels Juel (F 363) as well the landing ship HDMS Absalon (L 16).*

*Attached to the task group were the minehunting drones HDMS Saltholm (MSD 6), HDMS Hirsholm (MSD 5) and HDMS Msf1 (MSF1).*

*All pictures are by Michael Nitz - Naval Press Service.*



*HDMS Hirsholm (Michael Nitz)*



*Danish Naval Task Group on visit to Kiel Naval Base (Michael Nitz)*





*HDMS Absalon (Michael Nitz)*



*HDMS Absalon (Michael Nitz)*

# Fit to be a Frigate?

BY STEVEN WILLS

One of the most persistent complaints about the USA's Littoral Combat Ship (LCS) is that it is not fit to replace the retiring Perry class frigates. LCS has been characterized as under-armed in comparison with the Perry class, and not capable of assuming the roles and missions of a frigate.

In light of these criticisms it's useful to examine what constitutes a frigate in the second decade of the 21st century. What sort of frigate does the US Navy need to meet present requirements? Finally, does the LCS, in both its current form, and as envisioned in the frigate upgrade meet those requirements, particularly in armament?

The answers may surprise LCS critics who continue to call for a Cold War frigate as the solution for 21st century naval missions.

The definition of the frigate as a naval combatant has been in constant flux since the end of World War II. It appeared in that conflict as a British Royal Navy (RN) classification for an independent anti-submarine warfare vessel. By 1945, the term "frigate" generally meant a ship of 1300-2000 tons; less than 350 feet in length; a speed of less than 25 knots, and an armament focused on antisubmarine weapons.

The US Navy substantively changed the frigate designation after World War II with its first generation of purpose-built aircraft carrier escorts. The demise of the Axis surface fleets, the well-established threat from air attack, and the rise of a Soviet Navy based on submarines called for a new, affordable combatant that could meet these challenges.

A ship roughly 6000 tons in displacement, a speed comparable to fleet carriers, and capable of mounting significant anti-air (AAW) and antisubmarine (ASW) weapons was seen as an ideal cross between the expensive, man-power intensive cruiser and the cheaper, but less capable destroyer class.

The new ship was designated first as a "hunter killer" (CL) and later as a "frigate" (DL) with missile armed versions classified as DLGs. Destroyers, such as the Forrest Sherman class and their missile-armed immediate successors, the Charles Adams class, remained general purpose combatants optimized for a variety of roles, but generally less capable than frigates. Smaller combatants optimized for antisubmarine warfare remained labeled as destroyer escorts (DE's).

This condition persisted until the mid 1970s. US frigates had approached the size and capabilities of World War II cruisers in the California and Virginia class DLGN (nuclear-powered) frigates of 10000 tons and nearly 600 feet in length. The traditional antisubmarine warfare escort had also grown in size and capability. Many of these ships, such as the FF 1052 Knox class were significantly larger than the 1940's-era ships they were replacing.

These changes compelled the US to re-designate a number of its warships in 1975 to better reflect the changes in the frigate classification since 1945, as well as to combat a persistent myth that the US had less cruiser-designated ships than the Soviet Union. The frigates were divided into guided missile cruisers and destroyers based on size and capability. US destroyer escorts were renamed as frigates.

The patrol frigate, later the FFG-7 Oliver Hazard Perry class, was the zenith of American Cold War escort design. The Soviet Union was expected to deploy a significant force of subsurface, surface, and aviation platforms to destroy the expected Reformatory re-supply convoys crossing the Atlantic to support embattled North Atlantic Treaty Organization (NATO) forces in Western Europe.

Unlike previous escort classes, the FFG-7 was designed as a multi-mission



*LCS3 on Sea Trial (Lockheed-Martin)*

combatant in order to better meet the expanding Soviet threat. It too, like the LCS, ballooned in cost. According to a 3 January 1979 General Accounting Office (GAO) report, the cost per ship increased from \$64.8 million dollars a ship in 1973, to \$194 million each by 1979.

This general classification system of US surface combatants persisted through the end of the Cold War and the first decade of the 2000s. After 1991, however, the international definition of the frigate category again began to change. Falling defense budgets across the Western world in the wake of the Cold War's end compelled many nations to put

*USS Independence (LCS 2) of the General Dynamics Independence Class (front right) and USS Freedom (LCS 1) of the Lockheed Martin Freedom Class littoral combat ships. (Lockheed-Martin)*





more capabilities into fewer hulls, often designated as frigates, as a cost savings measure. These ships now occupy a place in many European navies analogous to that of the US Arleigh Burke class DDG as the primary surface warships of those nations' navies.

Japan and South Korea have made similar changes, but have retained the destroyer classification for these larger vessels. Russia maintained the Cold War classification structure throughout most of the last 20 years, but its recent frigates are smaller than their late Cold War cousins. The Chinese Navy has followed the Russian Cold War model and gradually increased the size of its frigates as general patrol and escort ships. Although there remain several descriptions of the frigate type warship, the post-Cold War ship now associated the frigate classification has generally grown into a large and capable surface combatant for many nations.

Does the US Navy need a frigate as defined by these new standards? At the end of their service lives, the Perry class had lost much of their (AAW) and (ASUW) sensors and weapons. Their MK 92 fire control system, MK 13 single-arm missile launchers, and medium range Standard Missile (SM-1 MR) systems were largely out of date matched against the growing anti-ship cruise missile threat by the turn of the century. They had become the early 21st century equivalent of the late 19th century colonial cruiser, whose chief purpose was to show the flag and conduct low-intensity combat operations.

The US high capability combatant class is well filled by the CG 47, DDG 51 and DDG 1000 class ships. Such a mass of AAW capable ships was not in service when the Perry-class were conceived. While the US Navy requires a replacement for the Perry-class's "show the flag" role, there appears to be no requirement for another medium capability convoy escort in the tradition

**Figure 2: Major Design Changes among Littoral Combat Ship (LCS) Seaframes**



Source: GAO analysis of Navy data; U.S. Navy (image).

#### **Freedom variant**



Source: GAO analysis of Navy data; U.S. Navy (image).

#### **Independence variant**

of past US frigate designs. The cruise missile threat is considerable for even high capability warships such as the DDG 51. A supporting frigate similar in size and capability to current European designs could be built, but would provide little in the way of additional capability beyond present ships. It would also not be a cost effective product for low-end presence missions.

Unlike during the Cold War, no potential US opponent yet deploys a global naval force capable of simultaneously effectively threatening US seaborne communications in multiple geographic locations. The absence of this threat for now obviates the need for 21st century version of the FFG-7. If that

threat develops, advances in missile and torpedo technology will require high capacity escorts like the DDG 51 rather than a new FFG-7.

The frigate needed for the present Navy is not another Cold War antisubmarine combatant, or an expensive, but less capable version of the DDG 51. It should instead be a general-purpose warship capable of multiple tasks. It must conduct low threat missions such as counter-piracy and presence operations in order to free the DDG force for offensive and defensive missions in high intensity combat. It should be able to perform escort missions for amphibious and logistics force ships for limited periods in

*LCS Major Changes to 2013 (Defense Industry Daily)*



## Fit to be a **Frigate?**

appropriate threat environments.

The addition of a surface to surface missile armament should allow the frigate to conduct limited ASUW under the Navy's emerging concept of distributive lethality. LCS endurance is 70% of the FFG-7, but it's still sufficient for extended operations in comparison with smaller corvettes or missile patrol craft.

The LCS baseline platform with 57mm gun, Rolling Airframe Missile (RAM), electronic warfare gear, boats, and large flight deck and hangar is an excellent replacement for the FFG-7 in low threat, presence missions. The ship can accomplish escort and additional warfare missions with the weapons and sensors provided in its warfare modules and frigate upgrade. The ship's modular design readily accepts additional weapons and associated equipment. The frigate upgrade to the basic LCS hull has been derided as insufficient, but only if a 21st century FFG 7 is the desired product. The modifications envisioned for the LCS-based frigate meet current requirements and definitions for the 21st century frigate the Navy requires.

No would deny the LCS program has suffered significant problems over the course of its history. It introduced multiple new technologies in one platform in order to replace three classes of ship. Problems associated with this effort remain and will likely persist for some time. In spite of these issues, the LCS and its frigate variant represent the best choice for replacing the retiring Perry class frigates in their current role as presence, patrol, and low intensity combat platforms, as well as emerging surface warfare missions. The Navy does not need a 21st century Perry class frigate. 🚢

*Steve Wills is a retired surface warfare officer and a PhD student in military history at Ohio University. His focus areas are modern US naval and military reorganization efforts and British naval strategy and policy from 1889-1941. He posts at CIMSEC, sailorbob.com and at informationdissemination.org under the pen name of "Lazarus".*

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### *Characteristics, Freedom variant*

**BUILDER:** Lockheed Martin

**LENGTH:** 387.6 ft. (118.1 meters)

**BEAM:** 57.7 ft. (17.6 meters)

**DISPLACEMENT:** approximately 3,400 MT full load

**DRAFT:** 14.1 ft. (4.3 meters)

**SPEED:** 40+ knots

#### **SHIPS:**

*USS Freedom* (LCS 1), San Diego, CA

*PCU Sioux City* (LCS 11) - under construction

*PCU Wichita* (LCS 13) - in pre-production phase

*PCU Billings* (LCS 15) - in pre-production phase

*USS Fort Worth* (LCS 3), San Diego, CA

*PCU Milwaukee* (LCS 5) - under construction

*PCU Detroit* (LCS 7) - under construction

*PCU Little Rock* (LCS 9) - under construction

### *General Characteristics, Independent variant*

**BUILDER:** General Dynamics (LCS 2 and LCS 4), Austal USA (LCS 6 and follow)

**LENGTH:** 418.6 ft. (127.6 meters)

**HEIGHT:** 103.7 ft. (31.6 meters)

**BEAM:** 103.7 ft. (31.6 meters)

**DISPLACEMENT:** approximately 3,100 MT full load

**DRAFT:** 14.4 ft. (4.4 meters)

#### **SHIPS:**

*PCU Gabrielle Giffords* (LCS 10) - under construction

*PCU Omaha* (LCS 12) - under construction

*PCU Manchester* (LCS 14) - in pre-production phase

*PCU Tulsa* (LCS 16) - in pre-production phase

*USS Independence* (LCS 2), San Diego, CA

*USS Coronado* (LCS 4), San Diego, CA

*PCU Jackson* (LCS 6) - under construction

*PCU Montgomery* (LCS 8) - under construction

# Navigating the Black Ditch: *Risks in the Taiwan Strait*

BY SCOTT CHENEY-PETERS

The author's sole experience transiting the Taiwan Strait was not a pleasant one. Like many on his US Navy destroyer, he had earlier in the week gone to sleep expecting to awake anchored in Hong Kong harbour for a few days of liberty to celebrate the American holiday of Thanksgiving.

Instead, the Chinese government rescinded permission for the *USS Kitty Hawk* Strike Group to enter port, causing the aircraft carrier and its escorting vessels to chart a course back to Japan and leave behind many loved ones who had flown to town to rendezvous. Typhoon-spawned weather heightened the crew's enjoyment as they headed for the Taiwan Strait to undertake a 'freedom of navigation' transit.

Seven years later, the relationship between China and the United States has not much improved. But that between China and Taiwan has softened markedly, even as 1,600 Chinese missiles remain arrayed against targets in Taiwan. In fact, this change has resulted in a shift in the geopolitical dangers facing those who ply the strait's waters. This article examines the outlook of these threats.

## Geography of the Taiwan Strait

Until 10,000 years ago, a land bridge connected the Neolithic people of Taiwan with those of mainland China, until rising sea levels from melting glaciers at the start of the Holocene epoch created the strait. As described by the late Harvard professor Kuang-chih Chang, over the subsequent ten millennia the strait's width expanded and contracted in a series of six 'sea invasions' and six 'withdrawals' as the waters rose and fell.

Today the strait runs 330 km north-

east to south-west, and ranges in width from 220 km at its widest to 130 km at its narrowest, with an average width of 180 km. It is bounded in the north by the East China Sea and in the south by the South China Sea, circulating waters between the two bodies with an average depth of 60m. At its deepest in the Penghu Channel the strait reaches 177m and is a mere 25m deep at its shallowest near the centre of the strait's southern mouth – the 'Taiwan Shoal' or 'Taiwan Banks'.

## Taiwan Strait

Seasonal environmental variation has

a large impact on the navigability of the strait. The China Coastal Current flows southward in the western part of the strait from a maximum strength in winter months, backed by the northeast monsoon, to its weakest point in the summer.

On the eastern side of the strait the northward flowing Kuroshio Branch Current is turned back by the north-east monsoon in the winter after exiting the Penghu Channel, but continues the rest of the year, while reaching its maximum strength in the summer.

Each year from July to September, an average of six larger (and, thus,





## Navigating the Black Ditch: *Risks in the Taiwan Strait*

named) tropical storms and typhoons impact the strait. Year-round, the strait is known for strong winds, wave swells, and fog (156.3 days a year of level 6 or higher on the Beaufort Scale), but these effects are amplified during the winter months. Fang Xu and Pingping Chen, writing in "Securing the Safety of Navigation in East Asia" by Keyuan Zhou and Shicun Wu, note that these conditions impact "not only challenges to safety at sea but also obstacles for efficient search and rescue."

The largest group of islands in the Taiwan Strait – and the group most impactful to navigation – is the Penghu Islands, consisting of 64 islets of volcanic origin, also known as the Pescadores for the fishing communities the Portuguese encountered in the 17th century. Situated 120 km from the Chinese mainland and separated by the 45 km-wide Penghu Channel from the south-west Taiwan coast, the Penghu Islands total 127 km<sup>2</sup>, with the namesake island accounting for roughly half that total area and 70 per cent of the total population of 100,400 inhabitants.

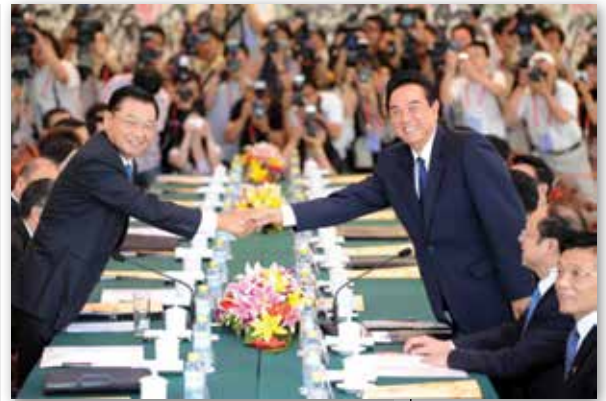
Another archipelago of note – the Kinmen Islands – lies just two km from the south-eastern coast of Fujian Province in mainland China, yet is also controlled by the government in Taipei. Consisting of 13 islets of 151 km<sup>2</sup> and 120,713 people, the Kinmen, or 'Quemoy', are low and flat except for hilly Kinmen proper.

These islands, along with the

36 Matsu islets at the north end of the strait, were the scene of fierce artillery duels between forces of the People's Republic of China (PRC) and those of the Republic of China (ROC) in the 1950s during the First and Second Taiwan Strait Crises. Unlike another pair of island groups in the Taiwan Strait that the ROC controlled at the start of these crises, the Tachen and Yijiangshan islands, the Kinmen and Matsu islands remain under Taiwanese administration.

A unique, informal feature of the Taiwan Strait helps keep the peace between ROC and PRC air and naval forces and prevent misunderstanding by encouraging them to remain on 'their' side of the strait. Referred to variously as the Taiwan Strait 'middle line', 'centerline', or 'Davis Line', the 1950s origins – and exact boundary – of this division are murky, but most sources point to its first appearance in 1955 as an incidental by-product of designated American patrol areas.

Since the 1958 Second Taiwan Strait Crisis, both sides have in practice mostly followed what remains a tacit understanding between China and Taiwan to prevent their warships and



*Chiang Pin-kun (L), chairman of the Taiwan-based Straits Exchange Foundation shakes hands with Chen Yunlin, chairman of the mainland's Association for Relations Across the Taiwan Straits, at the start of talks in June 2008. (Public domain)*

military aircraft from crossing to the other's side of a line roughly bisecting the strait.

Following remarks by then-Defense Minister Lee Jye in 2004 threatening to shoot down Chinese aircraft crossing the middle line, the Taiwanese Defense Ministry released co-ordinates for their conception of the line. Today, the midline also functions as the jurisdictional boundary for a range of other regimes including the division of responsibility for search and rescue services, although increased cross-strait co-ordination and collaboration is blurring its importance.

### **Geopolitical Background**

While most now know it as the Taiwan Strait, or Strait of Taiwan, the



*PLAN Marines based in Zhanjiang (Public domain)*



waterway's aliases are a reflection of its history. The first, 'The Formosa Strait', comes from the former Portuguese name for Taiwan, the ilha formosa or 'beautiful isle'. The origins of this name are shrouded in fascinating tales of doubtful veracity, as depicted in Jonathan Manthorpe's *Forbidden Nation: A History of Taiwan*, but the popularisation – of both the name and the discovery of the island – by Dutch spy Jan Huygen van Linschoten in the 1596 book *Iteneratio* marked a transition. Whereas the 16th century was filled with Portuguese, Japanese, Chinese, and pirate expeditions and warfare in the strait, the exposure of Portugal's secret trade routes brought Dutch and Spanish traders into that mix in the 17th century, as well as their attempts at colonisation.

### **Siege of Zeelandia**

The European colonisers were soon followed by Chinese forces. Robert Kaplan notes in *Asia's Cauldron: The South China Sea and the End of a Stable Pacific* that although several Chinese dynasties launched earlier expeditions, it wasn't until the Ming dynasty in the 17th century that an "organic connection" between Taiwan and the mainland was forged. This was achieved first with Cheng Chih-lung's resettlement of thousands from mainland China's Fujian province and later with his son Cheng-Kung's 400-ship, 25,000-troop force to drive out the Dutch, culminating in the 1662 successful siege of Zeelandia.

The second alias for the Taiwan Strait, 'The Black Ditch' or 'Black-water Ditch', came into use by cross-strait traders by at least the late 17th century. This period, stretching through the 18th century, was a time of increasing integration and trade with mainland China, and the name derived (along with red, white, and green-water

ditches) from the colour of the currents crossed during these voyages.

In fact, there appear to have been several regional stretches of water called the black ditch, including on either side of the Penghus. One of these is the Penghu Channel, which an 1807 text calls "the most dangerous place in all the ocean. Its depth is unfathomed, and the water is as black as ink," – but the term has since been applied to the whole of the strait. (For an exploration of the origin of the term 'The Black Ditch' and its physical basis see Michael Turton's online article *The Black Water Ditch and the Chinese Claim to the Senkakus* from which this quote was taken.)

In the late 1800s, a punitive Japanese military campaign on Taiwan and later French blockade of its ports presaged China's cession of the island and the Penghus to Japan in 1895 at the end of the Sino-Japanese War. Japan's administration of the island ran until the end of World War II, when Taiwan was returned to Chinese rule under ROC control, and has served as the ROC's seat of government since its 1949 evacuation from mainland China.

The Third Taiwan Strait Crisis occurred 40 years after the first two, raising the spectre of armed conflict in the strait as PRC military exercises and missile launches were countered by American naval movements over the course of 1995-1996. Following a rocky relationship under Taiwanese President Chen Shui-bian of the Democratic People's Party (DPP, 2000-2008) and fears that he would precipitate a crisis through an unilateral declaration of independence, cross-strait ties have notably warmed with the election in



2008 (and 2012 re-election) of Ma Ying-jeou of the Kuomintang party (KMT).

In December of 2008, direct cross-strait flights and postal services restarted for the first time in 59 years. More importantly for this paper, the 'third link' – direct shipping – also resumed and, according to the US Library of Congress' *Global Legal Monitor*, now connects 72 mainland ports with 13 in Taiwan.

In 2010, China and Taiwan negotiated and signed the Economic Cooperation Framework Agreement (ECFA) – covering specific tariff reductions and a general understanding that the two sides will work to further lower trade tariffs and investment barriers across a broad swath of the economy. In the most recent sign of friendlier ties between Beijing and Taipei, the director of China's Taiwan Affairs Office, Zhang Zhijun, met for the first time with Taiwan's Mainland Affairs Minister Wang Yu-Chi.

### **Activity in the Strait**

The Taiwan Strait is sometimes touted as a vital shipping route, connecting Asia with the energy supplies of the Middle East. Yet its importance should neither be overstated nor viewed in isolation. Except for cross-strait transits and vessels calling at a port in the immediate vicinity of the strait, the closure of the strait would result in only

*A US presence?  
A Navy FA-18E  
Super Hornet  
assigned to Strike  
Fighter Squadron  
14 participates  
in an air power  
demonstration near  
the aircraft carrier  
USS John C Stennis in  
Pacific waters  
(US Navy)*

## Navigating the Black Ditch: *Risks in the Taiwan Strait*

minor disruptions to Asian and global trade as most international traffic could be re-routed through the Luzon Strait to the west.

What determines the severity of disruption is whether the Taiwan Strait is closed alone or in conjunction with the Luzon Strait. A paper by Henry Kenny for the US government-sponsored think tank CNA (formerly Center for Naval Analyses) describes what a blockade of Taiwan might look like, with “exclusion zones for normal commercial shipping, as well as harassment of ships that approach the exclusion zone. Mines are another possibility, as is strafing of ships that intentionally or inadvertently approach the island.” It too notes that “disruption might be minimized if shipping to and from Northeast Asia steered clear of Taiwan on a wide berth ... of the island, entering/exiting the South China Sea off northern Luzon.”

Other analysts focus not on a conflict in the strait but its potential resolution, arguing that a PRC-controlled Taiwan would enable China to extract concessions from Japan by threatening to close the Taiwan Strait and neighbouring Luzon Strait and thereby cripple its economy. Writing in *Asia's Cauldron*, Robert Kaplan says Taiwan’s “de facto independence is key to the integrity of the Taiwan Strait that guarantees Japan’s trade routes.” While both the likelihood of these contingencies and their effects are debatable, a PRC in possession of Taiwan and in conflict with Japan would indeed cause serious disruption of Japan’s trade routes.

Former Japanese diplomat Hisahiko Okazaki stated in 2003: “In case of emergency, the only safe [shipping route] for Japan in Asia will be the passage through the Lombok Strait in Indonesia through the east coast of the Philippines.” Kaplan is wrong that the Taiwan Strait guarantees

Japan’s trade routes, but Taiwan’s de facto independence does keep them affordable.

This is not to say traffic in the strait is negligible. By 2008 the Taiwanese government counted 400 ships transiting the strait every day, along with 5.4 million barrels of crude oil and 0.6 trillion cubic feet of liquid natural gas (LNG) as of 2011 in an analysis by the US Energy Information Administration (EIA). In comparison, the EIA showed another 5.6 million barrels of oil and 4.8 trillion cubic feet of LNG headed to South Korea and Japan through the Luzon Strait.

Traffic patterns in the strait have changed since the 2008 resumption of direct shipping. Much of today’s cross-strait traffic used to flow through the strait to enter China indirectly via Hong Kong. Now, not only has cross-strait traffic increased by 10% every year since 2008 as annual bilateral trade between the mainland and Taiwan has risen to nearly \$200 billion, the overall traffic density has also reportedly increased, swelling the risks of collision. To handle this increase, the Chinese Ministry of Transport is exploring options for managing vessel traffic in the strait, including traffic separation schemes

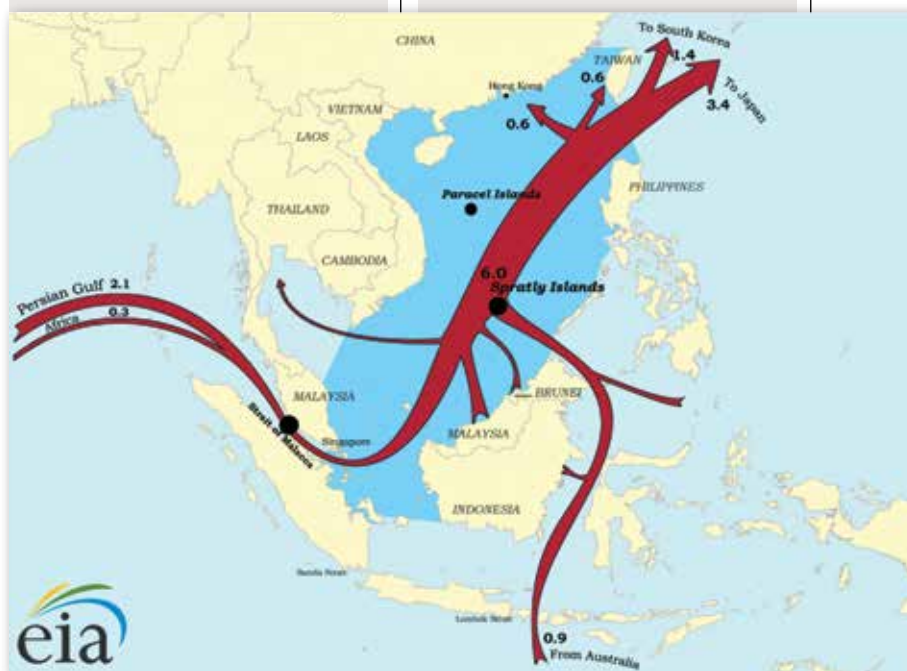
that may be implemented in the next few years.

### **Scope for Increased Activity**

As busy as the strait is today, there are several possible scenarios that would increase congestion further. The *South China Morning Post* reports China may attempt physically to bridge the strait, having approved in 2013 two such highway projects, although whether the connections would involve bridges or tunnels is unclear. It is also unlikely that this project will come to fruition until much later stages of political and/or economic integration – according to independent intelligence firm Stratfor, the near-term prospects for the link remain “largely illusory”. But if at some date it does proceed, the project could have an appreciable impact on strait traffic; on the other hand, once completed it would also divert some of the of cross-strait shipping traffic.

Far sooner than any such infrastructure, two follow-ons to the ECFA are likely to increase cross-strait traffic. The first, the Cross-Strait Services Agreement (CSSA), was signed last year and awaits ratification by Taiwan’s legislature. According to *The New York Times*, the CSSA opens

*Major LNG trade flows in the South China Sea (2011) - trillion cubic feet*



80 industries to investment in China and 64 in Taiwan. Although these are primarily service-sector openings, the CSSA does include the potential to boost the cross-strait travel industry. The second ECFA follow-on is the Cross-Strait Goods Agreement (CSGA), a trade-in-goods pact still under negotiation that would have an even greater impact on vessel traffic.

Lastly, the EIA reports that Taiwan is working with China's state-owned China National Offshore Oil Corporation (CNOOC) to explore for oil and natural gas in the strait. While these efforts have yet to make any substantial discoveries, and have failed in earlier attempts, any such finds would complicate the strait's already crowded transit conditions.

### ROC Marines

The current state of reduced tensions between China and Taiwan is likely to continue until at least the next presidential administration in 2016, and cross-strait economic integration is unlikely to abate in the foreseeable future. Nonetheless the risks of a future military conflict in the strait remain real. Scott Kastner of the University of Maryland notes that while even a return to power of the DPP would not dampen the current spirit of co-operation, "the cross-strait relationship has not been fundamentally transformed."

Although economic incentives are increasing for both sides to continue the peaceful status quo, especially given Taiwan's pragmatic acceptance of ambiguous sovereignty, this does not forestall the potential of a determined policy shift to resolve by force or decree what remains a matter of uncompromising principle – nor of a domestic contingency resulting in an attempt to use the flashpoint issue for political advantage.

### PRC Marines

For Taiwan, the growth of economic interdependence and the strength of China's military have driven the cost of an attempt to alter the status quo to a rationally unacceptable level if it would knowingly invite an armed response from China (see Scott Kastner's draft paper *A Relationship Transformed? Rethinking the Prospects for Conflict and Peace in the Taiwan Strait* for an excellent analysis of rational calculations and redlines, from which his prior quote was taken).

A declaration of independence is highly unlikely in the next decade, yet a future Taiwanese leader may nonetheless face, or believe he/she faces, what Thomas Christensen writing in the journal *International Security* terms as a "closing window of opportunity" to maximise Taiwan's position in respect to its freedom of action and international status. Analysts have given a range of dates when China will be able to defeat Taiwan alone or in conjunction with American assistance, with Taiwan itself (and self-interestedly) predicting a lost edge by 2020. All such assessments are a moving target and based on assumptions about military investments that may not hold true, but they might reinforce a perception that the time for Taiwan to act – even modestly – is sooner rather than later.

### Risks

For China's part, this shift in the balance of power in its favour recommends patience. But such patience has its limits. Given the recent perceived violations of promises regarding Hong Kong's governance and electoral future it is unlikely for a Taiwanese ruler to agree to an accord along Hong Kong's model of 'One China, Two Systems'. Further, as the same balance of power increases in China's favour it places downward pressure on the cost for China of settling the matter by force.

Kastner remarks that if this pressure outweighs the countervailing upward pressure from economic integration it could have the destabilizing effect of tempting future decision-makers to act. This is especially so if coupled with beliefs that work towards a peaceful settlement will be an effort in vain. But, as Zachery Keck of *The Diplomat* points out, if China is acting rationally it also must include in its calculations the likelihood and cost of armed resistance and pacification after the defeat of Taiwan's armed forces.

On balance then, short of internal domestic upheaval in either polity, the strait will remain the premier demonstration of John Mearsheimer's "stopping power of water" and locus of anti-access, area-denial capabilities – with China's arrayed to deter the US Navy from entering the strait and Taiwan's arrayed to prevent China from crossing it – and this arrangement will remain peaceful.

In its current incarnation, the Taiwan Strait is simultaneously a trade super-highway and a moat. As such, its value is undeniably greatest for Taiwan, but its criticality can be overstated for international trade beyond the ports and economies in the immediate strait region, due to the readily available Luzon Strait route as an alternate. 🚢

*Scott Cheney-Peters is a surface warfare officer in the US Navy Reserve and the former editor of Surface Warfare magazine. He is the founder and president of the Center for International Maritime Security (CIMSEC), a graduate of Georgetown University and the US Naval War College, and a member of the Truman National Security Project's Defense Council.*

Courtesy of Center for International Maritime Security.



# To Safeguard the Seas

BY COMMANDER JAMES FELDKAMP

The United States Navy is the most preeminent naval force in the world. Following Alfred Mahan's dictum that "a truly powerful nation must have thriving international trade, a merchant fleet to carry these goods and a strong navy to protect its sea lanes," the US Navy has provided stability, tranquility and maintained the global order since the end of World War II. However, in this age of austerity, the ability of our aging fleet to secure our interests, protect our allies and confront our adversaries is being sorely tested.

As we paused in remembrance of the 73rd anniversary of the surprise attack on Pearl Harbor, Hawaii, by the Imperial forces of Japan, we again see a rising power in Asia bent on changing the status quo, increasing pressure on our allies and challenging America's preeminence in the Pacific.

China's assertiveness in the South China Sea over the past few years is significant as it "directly challenges America's position as the primary maritime power in Asia and as the guardian of the old regional order," said Hugh White. As Ronald O'Rourke, specialist in Naval Affairs at the Congressional Research Service testified before Congress, he expects China "to continue putting pressure on its neighbors short of war in the East China and South China Seas to get its way in the region."

It is clear our Navy is facing ever-increasing operational challenges, including not only air and sub-surface threats but also supersonic cruise missiles and ballistic missiles (both anti-ship and surface to surface). Individually, these threats are difficult enough to combat, however, when encountered simultaneously; these threats severely challenge the current capabilities of our Navy. With a rapidly expanding Chinese Navy, coupled with the increased pace of Russia's ship

building efforts, the pressure to do more with less compels us to develop new technologies to maintain the advantage if or when confrontations occur.

For the last 70 years, radar has played a key role in maintaining technological superiority over our adversaries. Over the last decade, however, our radar capabilities have proved to be increasingly incapable of addressing existing and emerging threats. This, in turn, directly impacts the Navy's ability to assure maritime security and freedom of the seas.

Fortunately, the Pentagon has taken positive steps to rectify the situation by making investments in the next generation of radars. The Air and Missile Defense S-Band Radar (AMDR) is an excellent example of advanced radar technology that will fill critical capability gaps and ensure our sailors can meet the ever-changing demands of today's global threat environment.

Designed to replace the ageing Aegis combat system currently employed in the fleet, the AMDR is constructed as a self-contained radar that is scalable for any platform for any mission, with the ability to exponentially increase radar sensitivity. Not only will the AMDR more accurately detect missile threats, but it will also help ships run more efficiently. This new system reduces space, weight, power, and cooling demands of naval vessels, thereby maximizing the service life of the ships that incorporate this new technology. These long-term cost savings make AMDR a wise use of limited taxpayer dollars in today's austere budget environment.

With the ability to confront multiple threats simultaneously – even in the presence of heavy land, sea, and rain



*The Air and Missile Defense Radar enhances ships' abilities to detect air and surface targets as well as ballistic missile threats. (Raytheon)*

clutter – the technological advancement of the AMDR is truly remarkable. Scheduled to begin installation on the Arleigh Burke class destroyers starting in 2016 the AMDR is the technologically advanced, low-risk, cost-effective radar solution to combat today and tomorrow's threats.

Tasked with the daunting challenge of maintaining freedom of the seas, deterring international aggression, and playing pivotal roles in times of war the US Navy has earned naval supremacy, not only because of the skill of our sailors, but also because it has invested great effort and money to provide the finest technology in modern warfare. This trend must continue with essential defense programs so that we may stay one step ahead of evolving threats. Doing so will protect our national interests and ensure the safety of our sailors and war fighters. John F. Kennedy said it best, "Control of the seas means security. Control of the seas means peace. Control of the seas can mean victory. The United States must control the sea if it is to protect our security." 🚢



*Commander James Feldkamp USN (Rtd.) is a retired Naval Electronic Counter-Measure Officer. He flew combat missions in Desert Storm off USS Midway and served as the international outreach officer for the National Maritime Intelligence-Integration Office and the Office of Global Maritime Situational Awareness in Washington, DC. He currently is an adjunct professor teaching the theories and politics of terrorism at George Mason University.*



# SAAB SYSTEMS BECOMES **SAAB AUSTRALIA**

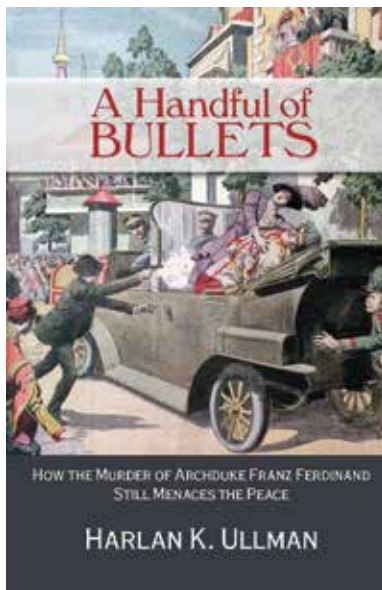
## NEW NAME, SAME HIGH PERFORMANCE

Saab Systems has been providing high quality products, services and solutions to the Australian and New Zealand Defence Forces for over 25 years. We have been contributing to the defence of the region since the 1930s and continue to win awards for the delivery of military and civil security programs. Building on this reputation the company name has changed to Saab Australia, to reflect our increasingly diversified business that spans the defence, security and traffic management markets and our future product offerings as part of the global Saab group.





# WWI BOOK REVIEWS



## **A HANDFUL OF BULLETS - HOW THE MURDER OF ARCHDUKE FRANZ FERDINAND STILL MENACES THE PEACE**

*By Harlan K. Ullman*

*Naval Institute Press*

*Reviewed by Tim Coyle*

This book's title, and the contemporary melodramatic artistic rendition of the assassination of the heir to the Austro-Hungarian throne on the book jacket, may give the initial impression that the book is a historical treatise on the centenary of the murder that started World War I. In using the assassination as a foundation for the book the author builds an argument by analysing the current strategic and security threats facing the world. He argues that that 'archdukes' and 'bullets' metaphorically abound in today's security environment.

Although the book is written very much from a critical viewpoint focussed on the US, the author's observations and analyses can readily be extracted and applied to allied governments, particularly those that have supported the US in wars and contingencies since World War II.

Ullman argues that since the assassination of Franz Ferdinand we have seen the demise of the Westphalian nation state system which provided peace, stability and prosperity as a bulwark against violence, chaos and disruption. Today's international order is a legacy of the post-World War II era and the Cold War. The international organisations which emerged (the UN, IMF, World Bank, NATO, G20 etc) have not offset the need for a 21<sup>st</sup> century international order and structure. These organisations' limitations and failures are sourced to Ullman's other main tenet; that of the 'Four Horsemen' now roaming the world causing disruption and destruction.

Using the biblical concept of the Four Horsemen of the Apocalypse, Ullman's four horsemen are failed or failing governments, economic decline, disparity and dislocation and violent ideologies. The major threats have been shifted from state-centric, nation-versus-nation politics and conflicts to more discrete dangers. Although state-to-state threats still exist (Ukraine, China-Japan, North Korea, India-Pakistan etc), the ubiquitous extremist 'non-state actors' have risen through the diffusion of power brought by globalisation and failed military interventions leading to the fragmentation of national boundaries including the arbitrary delineation of Middle East boundaries after World War I, particularly Iraq and Syria.

Ullman claims that 20<sup>th</sup> century concepts are no longer applicable to today's threats; however, the most difficult challenge is for governments to overcome obsolete thinking and embrace new strategies to counter contemporary threats.

Ullman classes the US as one of the failing governments. He illustrates his argument by outlining the perspectives that existed in the

White House in 1914, 1954 and 2014. His review of these critical years, as faced by the respective US presidents, is the basis for his criticism of the inability of the US system to adapt to contemporary threats. That US presidents come to office largely without experience is a major defect in the US system, according to Ullman. This observation may equally apply to other western democracies as there is no apprenticeship or formal training program for presidents or prime ministers. Under the Westminster system a prime minister could have served for many years in parliament – in opposition and in government as a minister – so when he or she achieves the leadership the person may be said to be experienced.

However, leadership imposes its own unique responsibilities and stresses. Unless the prime minister or president can thoughtfully assimilate the vast quantities of advice, whether prescient or superficial, and have the ability to turn advice into ideology-free policy, he or she is fated to react precipitately in response rather than plan strategically.

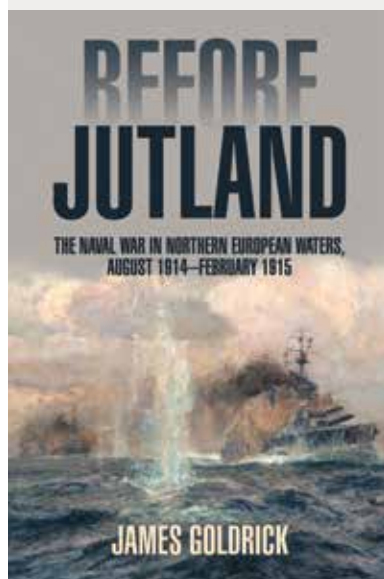
The US has not won any war it has been involved in, since 1945, says Ullman. It has focussed on winning battles, not wars. Its intervention in Vietnam, Iraq and Afghanistan failed to answer the question 'what next' or, as some would say, led to 'mission creep'. Today's Western coalition counterinsurgency operations use state-of-the-art ground, air and maritime assets against rag-tag groups with no armies or air forces, but engage in ruthless asymmetric warfare; their motivation and origins having emerged from the failures of previous interventions, arguably going back to the archduke's assassination.

The counter to contemporary threats is good strategic analysis and imaginative preventive measures



to obviate further four horsemen deprivations. Ullman offers his solutions but it is up to the reader to decide for him/herself whether to agree with him or to formulate their own solutions.

Regardless, this is a most useful treatise of contemporary threats (it is current up to late 2014) and the so far unsuccessful efforts to stem the assaults of the four horsemen. While centred on US policy shortfalls, the book should nevertheless be read by aspiring strategists, diplomats and military thinkers; not necessarily to agree with Ullman, but to assess where the archduke's assassination has taken us in the past century and how we can visualise and articulate a more stable and peaceful future.



**BEFORE JUTLAND: THE  
NAVAL WAR IN NORTHERN  
EUROPEAN WATERS, AUGUST  
1914 - FEBRUARY 1916**

*By James Goldrick*

*Naval Institute Press, Annapolis MD,  
2015*

*ISBN 978-1-59114-349-9*

*305 pages plus extensive notes,  
bibliography and index.*

*Illustrated with 35 black & white  
photographs and 9 maps.*

*Reviewed by David Hobbs*

*Before Jutland* is an extensive and improved revision of James Goldrick's earlier work *All The King's Ships Were At Sea* published by the Naval Institute Press in 1984. In his introduction, he explains that this new work evolved gradually as he had opportunities to study a number of primary source documents and the work of eminent historians. He also became aware that the way in which the ships and fleets of 1914 were operated, controlled and fought is no longer widely understood and we know more about Nelson's wooden ships than we do about Jellicoe's 'Dreadnoughts'.

Further insight was gained through experience gained on loan service with the Royal Navy on fishery protection duties in the North Sea, operating in the very waters dominated by the Grand Fleet and still without the benefit of GPS or other aids to situational awareness. His subsequent extensive command experience with the RAN allowed him to comprehend, after much reflection, just how difficult were the problems faced by admirals and captains in 1914 not only in knowing where they were but, critically, where others were in relation to them. Their solutions were, at best, seamanlike estimates which were vital in determining operational success or failure.

The book leads the reader thoughtfully into the outbreak of war in August 1914 with descriptions of the British, German and Russian Navies and explains why pre-war plans had, frequently, been changed to meet rapid advances of technology. I found the descriptions of the 'state of the art' in chapter 5 particularly interesting and had not realised the impact of pre-war

restrictions on RN training or the lack of specialised navigational training. Although the ships appear almost modern, most lacked gyro compasses and fitted speed logs; command from a wind, rain and often sea-swept open bridge with no form of tactical plot was, therefore, far removed from anything we would be familiar with today.

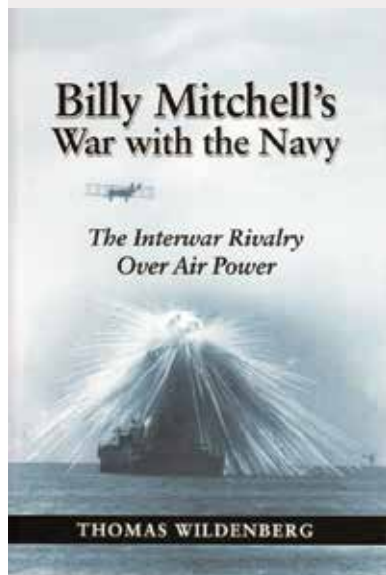
No wonder there were problems of co-ordination and with overcast skies that prevented sun and star sights, ships' dead-reckoning positions could be more than ten nautical miles in error soon after losing sight of land. Tactical communications, including for the first time wireless telegraphy and the use of information from the Admiralty's war room brought their own problems of integration. The culture indoctrinated into each of the combatant navies also affected the way they were commanded and operated.

Set against the realistic appraisal of the fleets, their technologically innovative and untried ships, the men who commanded them and their untested war plans, the book describes the naval conflict as it unfolded from the outbreak of war to the Battle of the Dogger Bank. In its own publicity, the Naval Institute Press describes this book as a definitive study of this period and I agree that the use of that adjective is entirely justified. It is a masterly work that combines a lifetime of study with extensive experience of seamanship, command and control written by one of Australia's pre-eminent naval officers.

James Goldrick ends his remarkable book with the observation that the more one comprehends what happened at sea in 1914 and early 1915, the more that the events of Jutland, the Dardanelles and of 1917-18 become understandable, if not inevitable. ANI members will be aware that there are a number of books appearing to mark

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the centenary of the Great War. Be in no doubt that this one is the essential key to a full understanding of the naval war and I wholeheartedly recommend it as the outstanding work on the subject.



## **BILLY MITCHELL'S WAR WITH THE NAVY: THE INTERWAR RIVALRY OVER AIR POWER**

*By Thomas Wildenberg*

*Published by the Naval Institute Press, Annapolis MD, 2013*

*Reviewed by Dr Gregory P Gilbert*

***The more Mitchell crusaded for an independent air service, the more radical he became... He became impatient with those who disagreed with him and he believed that Army and Navy brass who opposed him conspired to protect their privileges and authority. - unnamed source quoted in Billy Mitchell's War with the Navy, p. 186***

US World War I Army Air Service general William 'Billy' Mitchell remains a highly controversial figure. Some biographers have portrayed him as the founder of the US Air Force

(actually formed in 1947) and the creator of strategic bombing.

In this book Thomas Wildenberg explains how he was neither, and that he sees Billy Mitchell's most important contribution to the US military as his leadership in France during World War I.

Mitchell received the DSC and DSM for his achievements as America's senior combat airman 1917-1918. Subsequent events surrounding the future of US air power during the interwar period led him to twist the truth and distort reality to achieve his goal to increase the US spending on military aviation. He was a showman who sought and gained popular support for his cause at the expense of others in the military. His disregard for the facts presented by others, including his own superiors, led to his being court-martialled in 1925 for insubordination.

*Billy Mitchell's War with the Navy* is not a biography. It is more a case study of how past leaders adopted various methodologies to further their own cause with the military establishment.

During the 1920s Mitchell's voice was the loudest in a cavalcade of air power opinions. Wildenberg explains how Mitchell gained remarkable political, media and popular support and was able to stage or manipulate events to gain publicity, and to be fair, Mitchell's aim of increasing the amount of money allocated to military aviation in America was commendable.

However the peace meant that there were very few funds available for military expenditure and aviation was just one of many defence necessities desperately needing funds. By exaggerating the effects of air power and ignoring the factual evidence presented by others, Mitchell was unable to substantiate his claims despite their popularity. In effect Billy Mitchell's decision to target Navy

funding was a calculated response to the perceived overly large naval expenditures of the times and he did in effect generate a war with the Navy.

Billy Mitchell ultimately lost his war by over extending himself and progressively alienating his superiors in the US Army. The US Navy won decisively in both delaying the formation of an independent US air force and by gaining resources for its own aircraft carriers, shore bases and naval aviation.

Defence of the maritime approaches to the US remained largely a US Navy responsibility and modern battleships – strengthened and updated in an effort to survive air attack – remained an important component of the US Navy until at least the end of World War II. Of the 25 battleships that served during WWII only two were lost, both during the Pearl Harbor attack.

After sinking the ex-German battleship *Ostfriesland* during an exercise in 1921 Mitchell and his disciples believed that bombers had made the battleship obsolete overnight. There were many reasons why this was not true but in the public imagination facts were irrelevant and, additionally, the truth could not be released without disclosing official defence secrets.

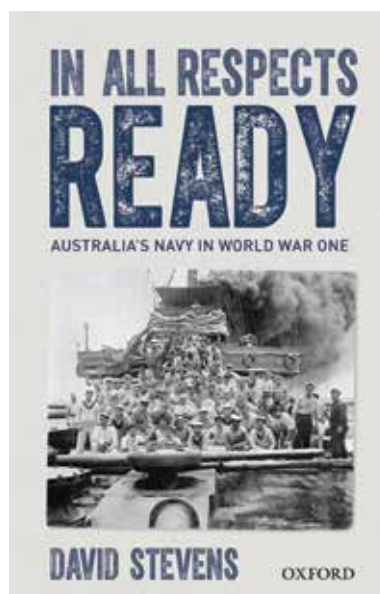
As Wildenberg points out even in 1942, during the Battle of Midway, land based B-17 Flying Fortress bombers were unable to cause significant damage on the Japanese Fleet. In what was effectively a re-run of the bombing exercises of 1921 but this time in actual combat conditions, the B-17 bombers were unable to sink any of the approaching Japanese armada. It was the naval aviators operating off the US Navy's carriers that sank the enemy.

This book makes one think about how to generate change in a defence environment where funding is extremely limited. It also reveals how significant efforts can be made

to improve survivability instead of just accepting the claims of a new wonder weapon. The work also makes one think about the contemporary discussion over what resource priorities Australia needs to allocate to air-sea operations and whether it resides largely within the RAN or the RAAF should not matter.

This is a discussion that has not occurred and is long overdue. The relatively low priority for the development of an offensive anti-surface warfare missile for Australia's F-35A aircraft, estimated to be fully operational by 2025, is just one example of how such unresolved intellectual debates can influence reality. What priority should be allocated to anti-ship missiles within Australia's maritime strategy? It is no good saying that it is not my part of ship. The US forces have resolved their rivalry over air power largely with the US Navy's ability to sustain itself as the second largest air service in the world – behind the USAF which is the largest and most capable. Such organisations are clearly not the answer for Australia.

*Billy Mitchell's War with the Navy* is well worth a read. I suggest it will go well with a glass of wine and a comfy chair so that one can contemplate the alternative futures of Australian naval aviation and air-sea operations.



## ***IN ALL RESPECTS READY - AUSTRALIA'S NAVY IN WORLD WAR I***

*Dr David Stevens*

*Oxford University Press*

**ISBN: 9780195578584 Hardback \$59.95 [www.oup.com.au/stevens](http://www.oup.com.au/stevens)**

***Reviewed by Tom Lewis***

Arthur Jose, in *The Royal Australian Navy 1914-1918*, has in many respects provided the official Royal Australian Navy historical record for the Great War. That was written following that mighty conflict. Over the intervening period there have been many other – some workmanlike, some admirable – accounts of the war. Bob Nicholls, sadly now no longer with us, provided background material and often many excellent diagrams. There have been too several accounts of the *Sydney-Emden* battle.

Now with *In All Respects Ready* David Stevens, formerly of the Historical section of the Navy, has given us a fine account of the battles both large and small of the fledgling naval force, so recently hatched from under the skirts of Britain's Royal Navy.

The new book is a handsome

volume in hardback, of 469 pages.

Almost every second page has an illustration, and there is a central section with colour plates. The text is up to the same high standard, with Stevens' background of over 20 years working in the RAN historical milieu coming to the fore: he would know by name each of the early officers working in the force and this shows to effect.

Accounts of the early midshipmen posted to the RN for experience are an example: some relate how they refused to work within the British system where the junior midshipmen served their seniors in menial duties. There are many direct quotations scattered through the text, from letters, diaries, and reports, and these bring a further personal touch into the account of what was a very small navy in those days.

This is not to say it didn't make a good account of itself, and the chronicles of the force are given steadily through 24 chapters. For it was a conflict like no other, in a changing world where technology had made the naval forces different from ever before. The dreadnought had arrived on the scene, and so too submarines, from their grim beginnings in the American Civil War decades previously, where the *Hunley* sunk the *Housatonic*. Flight too was making an entrance to the scene, and these three new aspects of combat alone made for a very different time. Naval artillery and engines were also changing, as too were social conventions of the naval forces. All of this could be quite bewildering, but Stevens cuts through what could have been a morass to give us an incisive account.

Given we have just commemorated the 100 years of the arrival in Gallipoli of Australian forces, it is timely to see the RAN Bridging Train's task of moving troops across beaches described. The actions of *HMAS AE2* – a British commanded but



# WWI BOOK REVIEWS

partly Australian-manned submarine also is carefully described, up until her last moments in Turkish waters. Her sister ship *AEI*'s loss had been previously discussed, for Stevens takes a geographical approach to his subject, and so *AEI* – never seen again in waters off Rabaul in 1914 – had been covered in that section.

An interesting approach, which works I think, is also to describe a prominent naval figure within each of these chapters. Des Woods has previously described in his review of this volume the battles and general events of the War, so it is right to mention these now in some detail. Stevens takes as his first character the renowned Admiral Creswell, and rightly renowned he was – and is – too. Creswell began his career in the RN, but moved to the colonies where he was a stalwart of the miniature navies which states formed to protect themselves before Federation. Creswell advocated for a combined force and also led from the front, taking *Protector* up to take part in the Boxer Rebellion in China. He can truly be called the father of the RAN.

The author follows him with other WWI figures of renown, including the redoubtable Captain Walter Thring, the dashing Leighton Bracegirdle, and fighting men of the lower deck such as submariner Able Seaman Reuben Mitchell. The war in its geographical range is shown with the adventures of John Dumaesq in the North Sea, and aviation fighter James Goble in European battlefields. Several other figures of renown are also discussed.

There are several useful appendices which will aid scholars and readers of detail alike. The chapter notes cover 38 pages, allowing others to follow where Stevens has forged a lead. Altogether this is at once an absorbing read and an essential reference work. Highly recommended.

## IN ALL RESPECTS READY - AUSTRALIA'S NAVY IN WORLD WAR ONE

*Dr David Stevens*

*Oxford University Press*

*ISBN: 9780195578584 Hardback*

*\$59.95 [www.oup.com.au/stevens](http://www.oup.com.au/stevens)*

*Reviewer: Desmond Woods*

A World War I publishing boom has been a feature of the last five years as the interest in the catastrophe that overtook the world in 1914 continues to fascinate and appal present generations in equal measure. Australians have been writing about the Great War for 90 years but the majority of such historians have treated the war at sea as incidental to the land campaigns.

If dealt with at all, the RAN's role has been seen as a sub-set of that of the Royal Navy. The concentration on the tragic loss of young Anzac lives in land battles has overshadowed the achievements of the Navy, both the Imperial fleet and the ships of the supporting dominions. There is little understanding of the role of sea power which cleared the seas of German surface raiders and shut down German merchant marine trade by late 1915. By 1918 the Royal Navy, with support from the Empire, had reduced the German economy to a state where it was unable to maintain a war front and a home front and was faced with civilian starvation, military collapse or seeking an armistice.

To balance Australia's excessively land-centric approach to history, Dr David Stevens has been writing about the war at sea, throughout his 20 years of research and scholarship at the Seapower Centre–Australia. This new book is the result of months of painstaking original research in the UK. Unlike the official naval

historian, Arthur Jose, writing *The Royal Australian Navy 1914–1918* in the post war period, David Stevens has had unrestricted access to intelligence summaries, official records as well as to letters and private diaries. These make this book much more than an historical chronicle. The result is a highly enjoyable, comprehensive and definitive account of what the RAN achieved in the Great War divided logically into 24 chapters. Each chapter provides a short biography of a key individual featured in the events described.

It was a busy war for the small Navy. In the last six months of 1914 the RAN deterred an attack on Australia's maritime trade by Admiral Maximilian von Spee's East Asia Squadron, escorted New Zealand troops to occupy German Samoa, supported the surrender and eviction of the German administration from New Guinea, escorted the first Anzacs to the Middle East, and defeated SMS *Emden* in single combat. In April 1915 HMAS *AE2* demonstrated that the heavily defended Dardanelles were permeable to bold submariners. Lieutenant Commander Henry Stoker and his RN and RAN crew launched the campaign to cut Turkey's resupply link across the Sea of Marmora. David Stevens puts this achievement in the context of what it made possible for RN submariners who conducted a campaign to cut Turkish supply lines.

Stevens deals with all these RAN operations in detail. He gives the RAN Bridging Train's task of getting British troops into and out of Suvla Bay the prominence it deserves but rarely receives. The stoic heroism of Australian sailors under accurate Turkish fire building pontoons and jetties which were in use – minutes after completion – by troops should rival in public esteem the deeds of their brothers at nearby Anzac Cove.

The book provides a wealth of detail on the lesser-known RAN support for

the RN's small ship operations. The author deals with the significant role that *HMAS Pioneer* played in the RN's blockade and eventual destruction of the lone raider *SMS Konigsberg* in the Rufiji river in East Africa.

The RAN was a young navy which was engaged with the RN across the world's oceans in the never-ending task of patrol and interception, by which the world's sea lanes were made safe for the movement of the Empire's troops and trade, while the blockade of Germany was established, maintained and tightened. The significant role of the cruisers *HMAS Sydney* and *Melbourne* off the American East Coast and in the West Indies is little known and yet these cruisers were an important part of the RN squadron that by ceaseless patrolling prevented ships from then neutral America from providing contraband aid to Germany. This was a vital if unspectacular maritime interdiction role and a significant success in the years before the Americans became an ally of Britain and France in 1917.

Between 1914 and 1918 the North Sea was to the maritime campaign as the Western Front was to the land campaign – the only place where the war could be won or lost. *In All Respects Ready* provides a detailed account of the operations of the RN's battle cruisers under David Beatty and the battleships of the Grand Fleet under John Jellicoe. Within this narrative *HMAS Australia's* years as flagship of the 2<sup>nd</sup> Battle Cruiser Squadron are described. The disappointment of her crew at missing out on being at the Battle of Jutland by just three days is understandable.

Stevens tempers this reflection by the historical judgement that the double collision with *HMS New Zealand*, which prevented *Australia* from being in the battle cruiser line at Jutland, when three of her sisters blew up under enemy fire, may have

been a lucky escape for the ship's company and her homeland. Battle cruisers were in Churchill's later phrase, "eggshells armed with hammers."

*Australia* was not an exception to this description. Like all British battle cruisers she carried the seeds of her own destruction within her and if she had been hit by an unlucky salvo which ignited her magazines she too would have erupted in flame and vanished from sight with all her crew.

Members of the RAN were at Jutland serving in RN ships. Chaplain Gibbons on loan from *Australia* reflected sadly on the loss of life among his friends in the battle cruisers which blew up. He wrote: "One moment they were working away at what they had been practicing all their lives and the next moment they were in eternity."

The book is full of passages from diaries, letters and extracts from reports which illustrate the daily details of naval life. David Stevens does not gild the lily and lays out the facts about the high desertion rate by RAN sailors keen to join the AIF. He deals with the inevitable high venereal disease rate and the occasional tension between men of different classes and nationalities serving together in confined spaces.

The months and years after the disappointment at Jutland were ones of frustration for those who sought a final reckoning in the North Sea with the High Seas Fleet, which never again came within the grasp of the Grand Fleet. Enforcing the North Sea distant blockade through patrolling was not what those serving in RN or RAN ships wanted to be doing, but that was the task allotted to *Australia*, *Sydney* and *Melbourne*. The ships' companies did it well, often in the most challenging of sea states and bitter cold. Lives were lost to accident and illness.

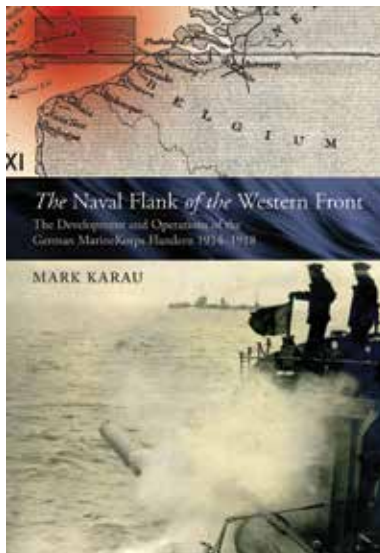
By 1916 in the Mediterranean and Adriatic Seas the war against German and Austrian submarines became a

ceaseless round of convoy escorting. It was an anti-submarine campaign using early depth charges and when necessary chasing down the bearing of a torpedo which had been fired and attempting to ram its owner. This was a hazardous occupation in which the Australian destroyer captains excelled. David Stevens tells the little known story of the Otranto barrage with great verve, and reveals how the Admiralty asked the Australian government to contribute to an over-stretched RN which was grateful for the arrival of such useful and efficient modern destroyers.

The book concludes not with end of the war and the surrender of the Kaiser's High Seas Fleet, but continues to examine the Great War's legacy for the RAN. One of the most important of these was the decision by many RN officers and sailors who had served with the RAN to continue their naval careers in the RAN or seek further loan service. They provided was a sorely needed infusion of naval talent and experience into the inter war RAN which helped to prepare it for the next war at sea.

*In All Respects Ready* is illustrated with rare photos and colour plates drawn from the extensive collections of the Sea Power Centre. An extensive bibliography is provided which demonstrates the scale of the research and scholarship devoted to this important work. This book will become the standard text on the RAN 1914-1919 for the general reader and for naval historians working in the field. It meets, in all respects, the high expectations of those who have been looking forward to reading David Stevens' account of the RAN's first baptism of fire. It is highly recommended.

# WWI BOOK REVIEWS



## THE NAVAL FLANK OF THE WESTERN FRONT: THE GERMAN MARINEKORPS FLANDERN 1914-1918

By Mark D. Karau

Seaforth Publishing, Barnsley, 2014

Reviewed by Dr Gregory P Gilbert

**Fortunately for the Entente, the German naval leadership took a defensive and essentially passive stance throughout the war. ... If, as has been frequently said, Belgium was the dagger pointed at the throat of Britain, one is forced to conclude that the Germans were incapable of wielding that dagger properly.**  
Mark Karau, p. 227

The 100th anniversary of the Great War has seen a surge in books written about that conflict. Unfortunately, in Australia and other Western nations, there remains a strong historical bias in favour of those who believe in the primacy of the Western Front land battles. Mark Karau's *The Naval Flank of the Western Front* is one of the small number of original works which extends the envelope of

modern thinking about the Great War. It is a remarkably insightful book that unconsciously challenges many of the commonly regurgitated historical narratives by use of meticulous research and solid interpretation. *The Naval Flank of the Western Front* is a significant addition to our understanding of the Great War at sea.

First published in 2003, under the title *Wielding the Dagger: The MarineKorps Flanders and the German War Effort, 1914-1918*, Seaforth Publishing should be congratulated for releasing this reasonably priced, paperback edition. By doing so they have made this work available to a wider readership.

Karau is right to see the actions of the German navy in Flanders 1914-1918 as exercising an important influence on the German war strategy and its inability to help obtain victory in the war. As the subtitle suggests, Karau describes the creation of the German MarineKorps, the establishment of naval bases and fortifications along the coast, as well as generation of the Flanders flotillas.

In doing so, Karau identifies the underlying philosophical conflict between the typically defensive approach characterised by the German army on the Western Front and the offensive approach of the Imperial German Navy on the naval flank of the Western Front under the command of Admiral Ludwig von Schröder. In modern terms the MarineKorps Flanders was a joint maritime force. It included military, aviation and naval units conducting operations on land, in the air as well as at sea.

For the German naval units in Flanders, 1916 was a year of transition where the geographical advantages of its bases in Belgium – the 'triangle' including Bruges, Zeebrugge and Ostend – achieved prominence. The German military leadership recognised

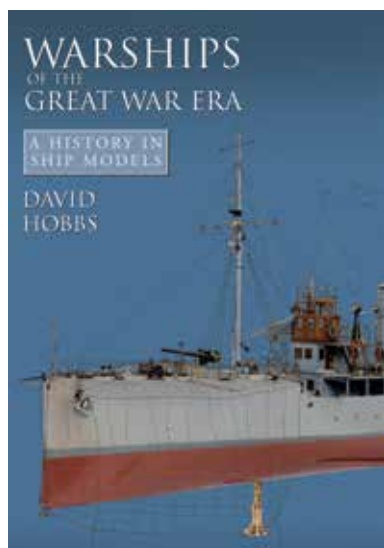
Flanders' importance and the offensive elements of the MarineKorps was given some priority. The opportunity to implement Admiral Tirpitz's *Kleinkrieg* strategy was recognised at the highest levels throughout 1917. However resistance from the naval command of the High Sea Fleet and the north German bases meant few of the German destroyer flotillas were actually engaged off the Belgium, French and British coasts.

The German unrestricted submarine campaign of 1917 almost brought Britain to its knees and the smaller submarines of the MarineKorps Flanders were remarkably successful in sinking many merchant ships during this period. Fortunately for the British the full offensive capability of the German navy's surface combatants – its destroyers, torpedo boats and minelayers – was held back by the German Admirals throughout this critical period.

As a result by the end of 1917 Germany's last throw of the dice to win the war had resulted in the defeat of the submarine threat, and the subsequent land campaigns of 1918 were part of the endgame in a war that Germany could not win. From August 1918 any notion of Germany achieving a negotiated peace, where they retained the Belgium coast as a potential stepping stone in a predicted future 'Second Punic War', were crushed under the feet of the advancing Allied armies.

*The Northern Flank of the Western Front* is a comprehensive and original look at the German maritime forces based in the occupied Belgian ports during World War I. It offers a new maritime perspective to the all too familiar works on the Western Front during that war. For anyone wishing to better understand strategic manoeuvre and the indirect approach to modern war, it is a must read.





## WARSHIPS OF THE GREAT WAR ERA: A HISTORY IN SHIP MODELS

By David Hobbs

Seaforth Publishing, Barnsley, 2014

Reviewed by Tim Coyle

David Hobbs, the former Royal Navy Fleet Air Arm pilot and author of several authoritative works on carrier aviation, has turned

his attention to a pictorial study of warship models of the Great War. The resultant book is a real gem with which modellers, those who ever wanted to be modellers (as was this reviewer) and wider warship enthusiasts will find an instant rapport.

The models are from the collections of the UK National Maritime Museum, the Imperial War Museum, the Australian War Memorial and the Australian National Maritime Museum. The model photographs were provided by the respective institutions' picture libraries and private collections.

The book covers all Great War warship types, from battleships to river gunboats and examples of merchant ships. Each warship type has a specific section which features the ship models together with details of the model's construction and features and a brief history of the ship itself.

The many close ups of superstructures show the exquisite detail in many of the models and are so good one feels that one could

actually walk on board. Each warship section also has a representative model annotated with the respective type features.

In addition there are pictorial features on battleship superstructure, models of underwater weapons such as mines and torpedoes, guns and gun mountings, capital ship development 1914-1918, destroyer development and boats and boat stowage.

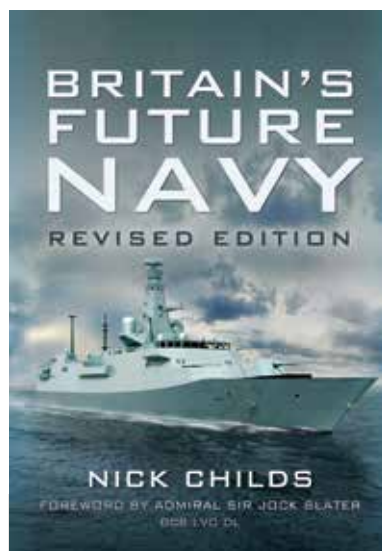
My favourite model is *HMS Leviathan*, an 1898 armoured cruiser. The model was made by the ship's builder and the detail is quite breathtaking. There two fine views of the model and a further two page spread of close ups of the ship's upper deck sections in superb detail.

This is one of those rare books which can be picked up at any time to lose oneself in the modeller's art of a century ago. Needless to say *Warships of the Great War Era* is highly recommended.



General Entry 331, Emms Division on the parade ground during their graduation ceremony held at Recruit School, HMAS Cerberus, Victoria.

# Book Reviews



## BRITAIN'S FUTURE NAVY

By Nick Childs

Published by Pen & Sword Maritime,  
Barnsley, 2014

Revised edition, paperback, price £15

Reviewed by Jack Aubrey

There are some interesting thoughts to be had for any Australian reading *Britain's Future Navy*

Both island nations, Britain and Australia have tremendously important naval pasts, but both publics seem to know now nothing much about it, or even to be much concerned about how we should spend the billions allocated to defence. Maybe it was ever thus. And for navies, as opposed to armies and air forces, it is even more difficult to advocate their cause, as their exploits are necessarily well out of the public gaze.

This worthy book is by well-qualified author Nick Childs, who has a most suitable background, not just as a BBC world affairs correspondent, but as a reporter from many conflict zones and as a frequent writer on defence matters.

The work gets off to a strong start with an interesting foreword by Admiral Sir Jock Slater, the RN's

First Sea Lord; Chief of the Naval staff 1995-98 and Vice Chief of the British Defence Staff 1992-95.

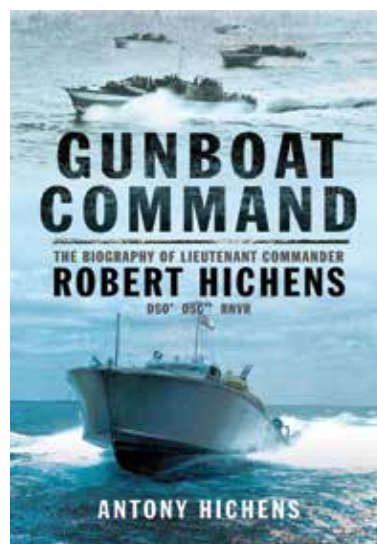
The book has 13 chapters which argue the points for and against what types of conflict the Royal Navy may find itself in, and whether they are suitably equipped for this. Of course, the controversial British pair of supercarriers now completing come in for discussion.

For many, this reviewer included, it seems incredibly short-sighted to not have carriers, in the wake of the Falklands crisis, and given the many and varied solutions carriers have been able to provide over many decades; bringing their firepower – or even not, as deterrence – to bear in a way no other naval asset can do. But in a Britain, and in an Australia, populated by people who don't discuss world affairs as a whole, it is hardly surprising their politicians pander to their short-term wishes: politicians are survivors by species.

There are chapters on the nuclear submarine force (both hunter-killer and nuclear attack) that Britain has retained; her surface combatant fleet, and some comparisons with emerging and strengthening naval forces, such as India and China.

*Britain's Future Navy* is a thought-provoking and timely book, and heartily recommended from an old salt who would personally like to take copies and distribute them to politicians who need to read it.

(Ed: A version of this review was published in *Headmark* last year but this refers to a 2014 revision.)



## GUNBOAT COMMAND; THE BIOGRAPHY OF LIEUTENANT COMMANDER ROBERT HITCHENS DSO\* DSC\*\* RNVR

By Antony Hitchens

Published by Pen and Sword  
Maritime, Barnsley, UK, (Pbk), 2015

RRP GBP17

Reviewed by Tim Coyle

Lieutenant Commander Robert Hitchens was a Coastal Forces Motor Gun Boat (MGB) officer who won the Distinguished Service Order twice, the Distinguished Service Cross three times, was Mentioned in Despatches three times and was recommended for the Victoria Cross. He was the most highly decorated Royal Naval Volunteer Reserve (RNVR) officer of World War II and was killed in action in April 1943.

This biography is largely comprised of extracts from Robert Hitchens' diary and his unfinished book *We Fought Them in Gunboats*, which was published in 1946 and again in 1956.

Robert Hitchens' son Antony provides family background and an outline of Robert's early life as well as the closing narration following

Robert's death. This work comes late in World War II biographies, having been first published in 2007 with this paperback edition in 2015. It nevertheless is a worthy memorial to a brave and resourceful officer who deliberately sought danger, not for his own reputation but as a brilliant leader and tactician who fought tenaciously as a British seaman, a role he innately felt as his destiny against his country's enemies. He believed he would not survive the war.

Hitchens' early life provides little insight into his formidable service future. From an old established upper middle-class Cornish family, he took an undergraduate degree at Magdalen College Oxford where tradition attracted a higher priority than hard study. He 'messed about in boats'; initially as a keen rower then in racing sailing dinghies. As a country solicitor in the late 1930s he raced cars, including at Le Mans, earning a reputation as a fearless competitor.

With war looming we see an aspect of his innovation and determination. Seeking to join the RNVR, he was advised his nearest unit was at Bristol, a six hour round trip from his home for a weekly parade. Dissatisfied with this response he petitioned the Admiralty, stating that there would be hundreds of qualified young men eager to serve and that they should be enrolled in an emergency reserve to be called up as required.

The Admiralty acquiesced and formed the RN (Supplementary) VR consisting of a list of yachtsmen sufficiently knowledgeable about the sea to be considered for a commission in the event of hostilities.

Called up in late October 1939, Hitchens underwent rudimentary training at the newly established RNVR officers' training establishment *HMS King Alfred* and was posted to the minesweeper *HMS Halcyon* attached

to the 4<sup>th</sup> Minesweeping Flotilla at Grimsby. The period September 1939 to April 1940 is regarded as the 'phoney war'; however this did not apply to the minesweeping flotillas which were constantly engaged in countering German minefields laid off the British coast.

Hitchens' war diary began on 11 December and all his writings, both from his diary and latterly from his unfinished book, are poignant for his separated family, graphically intensive in recounting his operational missions and stirring descriptive of wartime seagoing. This from his diary of 22 December 1939:

A lovely day with a North Sea sunrise, dull grey mist dispersed by a red sun. A hard west wind. The flotilla looked very fine behind us like miniature battleships with their high bows. We were the leaders today. The 5<sup>th</sup> Minesweeping Flotilla looked lovely astern with the red rags of the sun lighting up their grey hulls. There is beauty in a grim sort of way in warships at sea.

The minesweeping narration is as good a description of this understated activity as any of the period but it is Hitchens' involvement in Operation Dynamo, the Dunkirk evacuation, which shows his emerging initiative and courage. On 31 May Hitchens' ship, now *HMS Niger*, was ordered to the beach at La Panne, eight miles from Dunkirk. Here they found utter chaos. Expecting an influx of troops, after they dropped anchor nothing happened. Taking charge ashore, Hitchens could not establish an orderly boarding of the ship's boats. In deteriorating conditions he organised a roping arrangement to pull boats from the jetty to intermediate small boats for on-carriage to *Niger*.

His views of his experiences at the evacuation were his incredulous observation of the lack of German aircraft during the time he was there,

the lack of organisation of boats from the beaches (although he recognised that he was there late in the evacuation). and the 'quiet, steady ranks of soldiers awaiting their turn'.

For his actions at Dunkirk he was awarded his first DSC.

Hitchens had decided that his future lay in Coastal Forces and accordingly he was posted to MGBs. On 6 October 1940 he was appointed to the Coastal Forces base *HMS Osprey* and given his first command of a 70 foot MGB. The MGBs were designed by British Power Boats and the initial variants were flawed.

Inhibited by a weak armament (.303 machine guns) and noisy engines which could be heard up to 20 miles away, Hitchens soon learned that he and his RNVR compatriots had to challenge the Admiralty's poor opinion of these craft which were returning unsatisfactory action results and plagued by mechanical and seakeeping shortfalls. RNVR officers could be instantly recognised by their wavy uniform stripes and at that early period of the war were classed as pesky amateurs by many permanent RN officers.

The remainder of the book covers all of his actions and his determination to make the MGB a formidable fighting unit against the German E-boats that preyed against British coastal convoys. Progressing through the MTB appointments from CO to Flotilla Senior Officer, Hitchens drove improvements in engine silencing, tactics – such as 'sprint and listen' using hydrophones to pick up E-boats, improved armaments – upgunning from .303 to .05 machine guns and 20mm cannon and many other innovations. Despite these he came to realise that while the improved MGBs could deal with E-boats, larger German vessels could only be attacked with torpedoes.

Hitchens sought the fitting of 18



# Book Reviews

inch torpedoes in place of the two depth charges carried by MGBs for attacks on larger ships. The depth charge attack required the MGB to lay the depth charge virtually under the enemy vessel and escape within five seconds lest it be caught in the explosion. The Admiralty and their naval architects staunchly refused to approve torpedoes for MGBs as they considered Motor Torpedo Boats (with heavier torpedo armament and a weak gun outfit) had to be escorted by MGBs. It was only weeks after Hitchens' death the Admiralty relented and ordered the fitting of two 18 inch torpedoes to MGBs

After 70 years, Hitchens' fine writing skills has the reader enthralled by the brutal, intensive MGB on E-boat clashes occupying a few minutes in missions lasting 12 or more hours after which the badly damaged boats returned with dead and wounded. There are also the thrilling descriptions of MGBs transiting at 40 knots into action and the qualities of the RNVR officers and Hostilities Only ratings who endured extreme discomforts in the flimsy boats.

A typical operation, in which Hitchens lost a close friend for which he blamed himself, took place on 2 October 1942. The operation was to escort minelaying Motor Launches. After the minelaying had concluded and the MLs turned for home, Hitchens' four MGBs were released to search and attack the enemy at their discretion. Sighting four armed trawlers (too big to be sunk by MGBs without torpedoes) Hitchens decided to mount a depth charge attack. As Senior Officer he could have carried out the attack but offered it to his junior CO George Duncan. The following summarises Hitchens' selflessness and command discretion.

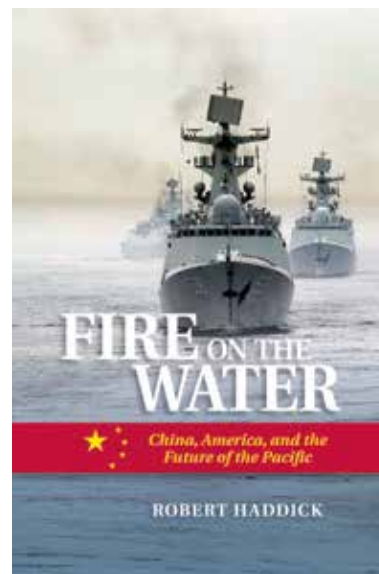
The enemy was drawing steadily nearer. Time was short. Who should make the attack? Thoughts raced through my mind. My first reaction was to do it myself. A bare two

months before 77 (Hitchens' boat) had carried out a successful depth charge attack. We were the most suitable, the most experienced. But the limelight had consequently fallen all too brightly upon us and me in particular. The depth charge attack of Alderney and the battle off Ostend, both had been solo affairs; the resultant acclamations embarrassing so far as I was concerned. I desperately wanted my other officers to share to the full in the Flotilla's success. George Duncan I knew had been pining for such an opportunity. 'Would you like to carry out the attack George?' I shouted. I knew the question would be superfluous. Nothing would hold George back. 'Yes, I would' came the unhesitating reply. A very brave man was started on the short run to a swift death.

Hitchens' three boats created a diversion while Duncan in 78 circled around to the disengaged side; however 78 was mortally damaged by enemy gunfire which killed Duncan. The subsequent Board of Enquiry did not hold Hitchens responsible but he was personally distraught and blamed himself for Duncan's death.

This event ended Hitchens' original book and Antony continues the narrative with descriptions of his father's final actions, the VC recommendation (which was not successful – Hitchens in his final weeks considered himself to be unworthy), and recollections of those who knew him. A 20mm cannon shell killed Hitchens on 13-14 April 1943 on the bridge of his MGB.

This is a great story demonstrating the highest values of initiative, determination, loyalty and courage. The passage of 70 years does not detract from its impact.



## **FIRE ON THE WATER: CHINA, AMERICA AND THE FUTURE OF THE PACIFIC**

*By Robert Haddick*

*Naval Institute Press - £22.39*

*ISBN 9781 6125 1795 7*

*Reviewed by Geoffrey Till*

I must admit that when I opened the packet that plopped through my letter box and read the note that our Editor had inserted, I thought like him that this was yet another American book about the rise of the Chinese Navy and what it all meant.

Nor were we entirely wrong, since the expansion of China's capacity to secure its interests in the Western Pacific is very much a major assumption of the book. But there's much more to this seriously good and seriously thought-provoking book than that increasingly banal conclusion.

The author's main preoccupation is to explore what America and its allies and partners should *do* about China. Robert Haddick argues that increased competition between China and America is inevitable, that the risk of war is rising, and posits four possible alternative futures for the region, which depend fundamentally on the nature of the

American response to the situation.

The first possible future is a continuation of America's forward presence and stabilising role in the region. This will be increasingly hard for Washington to sustain, unless it radically changes the way it goes about things.

The second assumes that America withdraws from the area, which then degenerates into what he calls a grim 'Hobbesian' situation of escalating conflict between China and its neighbours.

The third sees a process of growing economic inter-dependence, absorbing China into a cooperative rules-based Pacific community rather like the European Union writ large, but still with a stabilising US presence to some degree.

The fourth possible future assumes a US withdrawal to its own side of the Pacific ocean and the emergence of a Sinocentric hierarchical system that is, in effect, a 21<sup>st</sup> Century replay of the tributary system of the 'Middle Kingdom' that until the last couple of centuries characterised the region, give or take, for 2000 years.

The second of these would be the worst of all possible worlds since it would lead to the nuclearisation of the region and every prospect of catastrophic global conflict. The third, European 'model' future is dismissed as being completely impractical given the high level of nationalist competition in the area. The last option of a return to a traditional China centred system is what Robert Haddick thinks Beijing wants; would be unacceptable to China's neighbours, and would imply an accretion in Chinese strategic weight that would endanger long-term American interests in much the same way as Soviet dominance of western Europe would have done.

So the first option is the only even remotely palatable one for Washington, but how to make it sustainable given the dramatic increase in China's economic potential and its rising military capacity to deny the 'forwards military presence'

that America's current level of strategic engagement depends on?

Firstly, says Haddick, America should take the threat much more seriously than it has until very recently and should redress the decay in the conventional and nuclear maritime power of the United States that has resulted from it.

Secondly, the US Navy and Air Force should wean themselves away from the outmoded operational assumptions that have been in play since the end of World War II. These are characterised by a reliance on forward bases (in the shape of a few aircraft carriers and fixed airbases along the Eurasian rimland), concentrated nodes of military force, and strike forces that are overwhelmingly short-range. Chinese anti-access capabilities make all this far too vulnerable and so a poor guarantee of the 'forward engagement' that the US has relied on for so long.

Instead the US should move its bases out-of-range, diffuse rather than concentrate its military force and develop its capability for long range strike (in the shape, particularly, of missiles and long-range bombers). This places the author firmly in the camp of America's military radicals with their emphasis on off-setting technology, reconnaissance and long-range precision strike complexes and networked and defended decentralisation.

The role of the Marines should be to massage the area *before* things turn nasty. The Navy likewise should do its bit to rally America's allies and partners in the region and deter Chinese adventurism by withdrawing from the East and South China Seas when conflict threatens but turning it into a strategic no-mans land while holding the Second Island Chain for as long as it takes.

Robert Haddick makes his case cogently and well. His style is clear, business-like and very easy to follow – a model of clarity in fact, the author's military-analytical background showing at every stage of the argument. But is

he right? That's for the reader to decide. Personally I thought his representation of China's hegemonic aspirations overdrawn (not least because there is some considerable diversity of view and interest in that perplexing country about what should be the way forward) and, paradoxically, his portrayal of the way in which a China-centric solution could be opposed seems over optimistic from the US point of view.

These days, there are a instead a growing number of analysts, who think the China-centric solution in the South and East China Seas is now pretty unstoppable (for evidence of that look at the string of defeats the Philippines has suffered over the past 10 years) but that *outside* the first island chain, China's policy would in any case be no more hegemonic than anyone else's.

That being so, small countries will need to do what Thucydides and quite a few Chinese commentators recommend – accept the inevitable. Their reward will be unimpeded access to the Chinese market and regional stability – just as it was in the old days. And from the US point of view, in practical and realistic terms, what would be so bad about that? Sufficiently accommodating but still powerful medium-power buffer states – Japan, Korea, India, Indonesia – could still hold the deterrent line against an over-mighty China when supported by a long-range US Navy and Air Force.

I am not for one moment suggesting that this view is right and Haddick's wrong – merely that some of these less apocalyptic future outcomes, both political and military, deserve more treatment than they get. Nonetheless with this quite slight caveat, *Fire on the Water* is strongly recommended. It is, quite simply, one of the most interesting and clearly argued books on the subject I have read for a very long time. These are views that need to be thought about seriously even if not, in the end, fully accepted.

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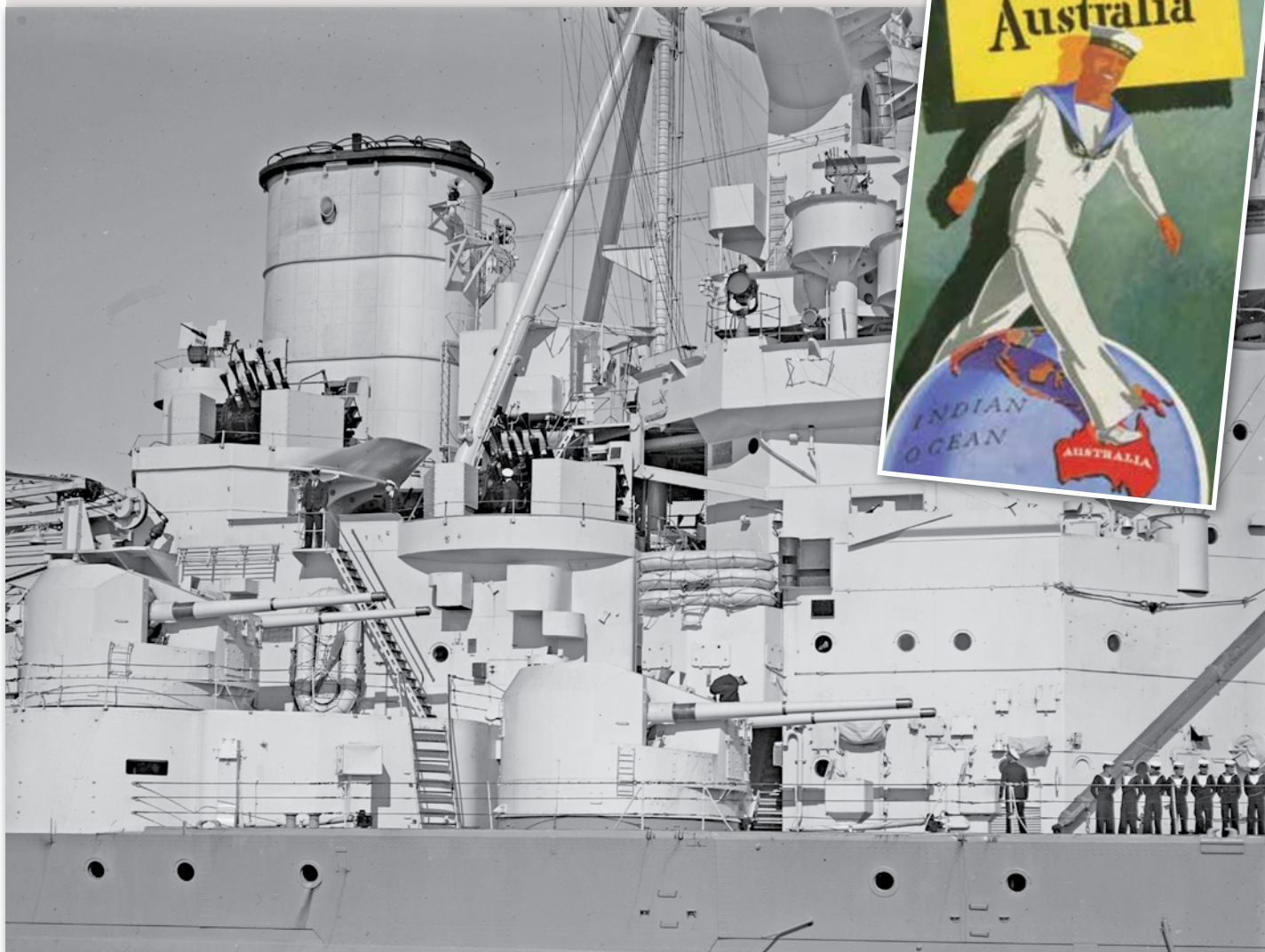
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Image: Eye in the Sky



# Visions from the Vault

## *The British Fleet in Sydney 1945*



When the British Pacific Fleet arrived at its main base in Sydney on the 11th and 12th February 1945, its ranks were full of confidence for the future. The war against Germany was proceeding apace, and the war against Japan was pressing the Empire hard.

Admiral Fraser, as Commander-in-Chief, established his headquarters ashore in Grenville House, William St, Sydney, while his second-in-command, Vice-Admiral Sir Bernard Rawlings, commanded the fleet at sea.

Australia had been under 'American

occupation' since 1942 and many Australians were delighted to see the British fleet. The people of Sydney raised £A200,000 by public subscription to build the British Centre staffed by over 4,000 volunteers, and provided 1,200 beds and at times 6,000 meals each day. Three hundred young Australian women attended dances each night as hostesses, while some 12,500 homes in New South Wales offered hospitality to British sailors.

Australia managed to perform a host of refit and repair facilities in support of the BPF from February 1945 until well

after the end of the war. This included an emergency docking of Illustrious in the newly constructed Captain Cook Graving Dock at Garden Island Sydney, three weeks before the official opening ceremony.

Not only did many Australian sailors serve in RN ships of the BPF, but by early March 1945 the Australian Navy had allocated all its 'N' and 'Q' class destroyers and 18 of its Australian corvettes (minesweepers) to that fleet.✶

## ANI ON-LINE: A GUIDE TO THE NEW WEBSITE.

*Our new website is now on-line! In addition to the features available on the previous site, the new site also features a library of past journals, a discussion forum, a news section and member list. This short guide is designed to help you take full advantage of the new features.*



Figure 1

### OBTAINING AN ACCOUNT

In order to access the new features of the site you must have a user account for the website. If you have a current subscription to the ANI, navigate to the website [www.navalinstitute.com.au](http://www.navalinstitute.com.au) using your web browser (figure 1), click the “Members Login” menu item (figure 2), then click the link to download an application form. Fill in the form, then fax or post it to the ANI Business Manager. Once your account has been created, you will receive an email that outlines your member ID and password.



Figure 2



Figure 3

### LOGGING IN TO YOUR ACCOUNT

Once you have your account details, you are ready to login and access the new features of the site. In order to login, navigate to the website (figure 1) and click the “Members Login” item (figure 2). Enter your member ID and password as they were provided to you, then click the “Login” button. The case of the member ID and password are important: i.e. “CaSe” and “case” are considered entirely different words by the authentication system. Each letter of the password will appear as a single “\*” to prevent others from seeing your password as you type. If you have entered your details correctly, you will be presented with the news page. The grey status bar at the top notifies you of the account you are using (figure 4). You are now able to access all of the new features of the site.

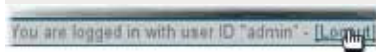


Figure 4

### LOGGING OUT OF YOUR ACCOUNT

In order to protect your identity and to prevent malicious use of your account by others, you must log out of the site when you are finished browsing. This is especially important on public computers. In order to log out, click the “Logout” link in the grey status bar (figure 4).



Figure 5



Figure 6

### CHANGING YOUR DETAILS

When your account is created, only your member ID and password are stored in the system for privacy reasons. However, you may provide other details that are visible to other ANI members. In order to change your details, login and click the “Change Your Details” menu item (figure 5). Then select the “change” link (figure 6) next to either your personal details or password. Change the text appropriately and click the “save” button (figure 7).

The personal information that you provide will be visible to other members of the ANI but will be hidden from members of the general public. You may provide as much or as little detail as you wish but none of the fields are compulsory. However, you may not change your member ID as it is the link between the on-line database and our off-line records.



Figure 7



Figure 8

### PARTICIPATING IN THE FORUM

In order to post topics and replies in the discussion forum, first login and click the “Forum” menu item (figure 8). Then select a forum that you would like to view by clicking its “View Topics” button (figure 9). Select a topic that you would like to read by clicking its “View this topic” link (figure 10). If you are not interested in any particular topic, you may add your own by clicking the “Add New Topic” button (figure 10). Similarly, once you are viewing a topic, you may post a reply by clicking “Add New Post”. Fill in the heading and body of your reply and click the “Submit” button to add your reply to the topic. If you change your mind while writing your reply, you may click the “Cancel” button and your reply will not be added to the topic.



Figure 9



Figure 10

### FURTHER QUESTIONS

If you have specific questions regarding website features or even a feature request, post a topic in the “Website Questions” forum and a site administrator will reply. Otherwise, happy browsing!



## Thinking of Making a Contribution?

### Style Notes for Headmark (*still required for website articles*)

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Don't indent, and leave left justified.

Separate paragraphs by one line. Single spacing only. Use one space only after stops and colons.

#### CONVENTIONS:

Use numbers for 10 and above, words below. Ship names use italics in title case; prefixes such as HMAS in capitals and italics. Book and Journal titles use italics.

Use single quotation marks for quotations. Do not use hyphens for any rank except Sub-Lieutenant.

#### CITATIONS:

Endnotes rather than footnotes. Use footnotes to explain any points you want the reader to notice immediately. Book titles follow Author surname, first name, title if any. Title. Place of publication: publisher, year of that edition.

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Adkin, Mark. *Goose Green*. London: Leo Cooper, 1992.

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#### ILLUSTRATIONS:

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