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THE NAVY

THE MAGAZINE OF THE NAVY LEAGUE OF AUSTRALIA

THE HUNTERS ARE COMING

WARSHIP DESIGN IN A RAPIDLY CHANGING WORLD

SUSTAINING AUSTRALIA'S EMERGING EXPEDITIONARY CAPABILITY

THE KAISER AND HIS GRAND STRATEGY IN THE MIDDLE EAST

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STRANG ENGINEERED LOGISTICS

Volume 80 No.4

THE NAVY

THE MAGAZINE OF THE NAVY LEAGUE OF AUSTRALIA

Front cover:
A computer generated image of a *Hunter-class* frigate to replace the Anzac class frigates of the RAN. Nine are to be produced in three Batch builds. (BAE)

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A SOVEREIGN FUTURE?

The final 2018 issue of *The NAVY* begins with a review of the new *Hunter-class* Frigates by Dr Roger Thornhill (see also Letters), followed by a paper on Gallipoli and Australia's role in that campaign by Professor Rob O'Neill. The third paper is by John Jeremy and returns to warship design. The final paper is by Captain George Galdorisi USN (Ret.) examining the 'refitting of the ADF'.

Where is Australia? This is not the same as the *Quo Vadis* question raised by Reay Atkinson and Bogais in the Apr-Jun Issue. But the two are clearly connected; linking also to the future of the Navy League of Australia, and *The NAVY.*

The NLA, *The NAVY*, and the Honourable Kim Beazley AC, the Governor of Western Australia and NLA Patron, amongst others have had a long-standing geopolitical, strategic view that Australia needs to return to the seas if it is to secure a place at the top-tables of the 21st, and succeeding centuries. This is evident in the decision to proceed with the purchase of twelve Future Submarines from France's Naval Group as a 'Sovereign Capability'. It is also true of the decision to purchase nine *Hunter-class* ASW Frigates from the UK Company BAE Systems.

Batch 3 Type 12M / Leander-Class Frigate HMS ACHILLES (F12) June 1987.

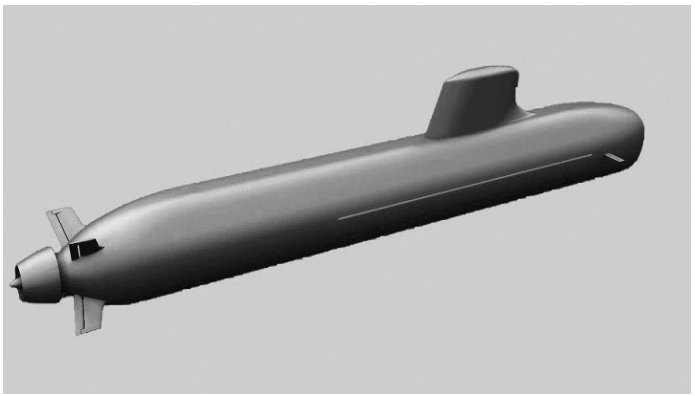
The two build contracts are different and similar: plus ça change, plus c'est la même chose. Whereas the Future Submarine (SEA 1000) programme is devised about achieving a sovereign submarine capability in Australia, the same is not explicitly the case for the Future Frigate (SEA 5000). On the other hand, like the Future Submarine, the Type 26 / Global Combat Ship (GCS) / *Hunter-class* does not yet exist. Under current UK planning, the thirteen ships to be built for the RN has been reduced to eight, and possibly even five. Consequently, Australia's initial build of nine will be commensurate with RN builds – and possibly the first ship to be commissioned (if not built). The RAN variant will currently be the majority of the class (53-64%). While there remains a possibility that the GCS will become a truly international class (as per the UK *Type 12 / Type 12M / Leander classes* (1955-2004/5)) with potential builds for the RCN, USN, and possibly RNZN.

The *Hunter-class* has a number of advantages – one of them being that it is likely to be a Five Eyes capability. This is not to claim the ship or the companies involved in building it as Five Eyes entities. Five Eyes is a unique sovereign-to-sovereign capability; connecting back to the 1946 SIGINT agreement between the U.S. and UK, and subsequently extended to include Australia, New Zealand, and Canada. What Five Eyes means is that these five countries have a deep, established culture in sharing information, data, and technology. It is not perfect, but the culture does extend commercially, contractually and economically to underwrite engagements at different levels. It is explicably not the same as a contract between Australia and Naval Group to build the Future Submarine. The French Government, while anxious to deliver the product, fundamentally sees Australia's Future Submarine as a commercial arrangement – other than where the transfer of nationally-safeguarded (sovereign) technology and IP is concerned. And the US regards the contract with France similarly – with the potential risk of reverse flows occurring between Australia and France. This is different to contractual and commercial arrangements with and between Five Eyes nations.

Additionally, to the U.S., Five Eyes is something of an aberration; typically set alongside other biltatrerals, for example between the U.S. and Japan, and the U.S. and Israel. It means less, therefore, to the U.S. than it does, say, to Canada or U.K.

From the perspective of *The NAVY*, the *Hunter-class* was the correct decision for Australia for a number of reasons; including, significantly, its Five Eyes progeny (unlike the Future Submarine and OPVs). The other significant reason is that, being amongst the first to build and (initially) the majority partner gives Australia the implicit opportunity to leverage a SEA 5000 sovereign capability. This is also expressed in the contract, whereby BAE Systems manages the programme, and at its end Australia resumes complete ownership of ASC Shipbuilding. This will be no easy challenge. There are strong competitive reasons why originating nations will not want to transfer their Ricardian comparative advantages to Australia. Ultimately, Australia is going to have to fight for and, or, pay for that knowledge and, where it is not provided or available to create, invent, and design it for itself – keeping it alive for the full class life-cycle. This raises the question 'what does a sovereign capability look like?' In previous years, it would have been represented by heavy industry, and the ability to make steel and build ships. To a great extent it still is. But today, the sovereign capability may not be in the physical artefact but in the algorithm or App that makes a capability do the things it needs to do. That is what is going to keep our children and their children environmentally, economically and physically secure in years to come.

Considering the Joint Strike Fighter F-35 (*Lightning II*), Australia, through its deal with the U.S., will probably own at most 15-20% of the IP necessary to call the aircraft Australian. The UK, through their deal / proximity with the U.S. and remaining industry, will own that much more – possibly as much



Shortfin Barracuda SEA 1000 (Image DCNS).

as 50%. Despite Australia's ability to build aircraft and weapons – to kit, fit and maintain the F-35 over its full life cycle will require access to the other 75% of the IP. This will significantly restrain RAAF ability to adapt the aircraft to meet Australian needs – other than at cost in gold and time. Particularly when at war and needing to adapt, repair, and rebuild the aircraft the most. Essentially JSF confers a colonial status, whereby RAAF will always be in hock to the U.S., possibly to the extent that if the U.S. does not want an Air Force to use the aircraft (e.g. if they don't pay the rent) the plane can be 'switched off'.

With the future Frigate and Submarine, Australia has a unique opportunity to achieve a sovereign capability. If Australia gets it right, the next generation of Australian Frigates, Destroyers, Submarines, and OPVs will be 'ours' – designed, engineered, and built in Australia. Australian designs and IP will be competing favourably on world markets, alongside builds from France, the UK, and the U.S – as Austal does today! Something none of these countries, no matter how close our Alliances, really want. Hence the fight and sovereign-build costs.

Australia should be under no illusions. There may come a time, as in 1942, when it will be necessary for Australia to mount a 'break out' – to reconnect with our Japanese, U.S., Indian, Korean, Singaporean, Malaysian, Burmese, Taiwanese, Vietnamese, and other historic Allies – including the Philippines and Indonesia – to our North. This will takes hearts of oak and ships of steel.

Regarding the future of *The NAVY* (and perhaps the NLA) raised in letters (Jul-Sep issue). The magazine is comparatively one of the most successful of its genre in Australia today – based on sales and volume (not profit). If the NLA and *The NAVY* did not exist, Australia would need to invent it. Yet it is being squeezed by the institutionally-aligned, Defence sponsored glossies that have professionalised the market; taking the advertising; and driving the volunteers and their interest base to the margins. This is non-competitive at a moment in time when Australia needs to lead the way, invent, engage and provide an honest critique of Government and its institutions. ■

F-35B Lightning II Operating from USS AMERICA (LHA-6).

NOTICE IS HEREBY GIVEN THAT THE

ANNUAL GENERAL MEETING
OF THE NAVY LEAGUE OF AUSTRALIA

will be held at the Hotel Realm, 18 National Circuit, Canberra ACT **FRIDAY 26 OCTOBER 2018 AT 8.00 pm**

BUSINESS

1. To confirm the Minutes of the Annual General Meeting held in Adelaide on Friday 13 October 2017
2. To receive the report of the Federal Council, and to consider matters arising
3. To receive the financial statements of the year ended 30 June 2018
4. To elect Office Bearers for the 2018-2019 years as follows:
   - Federal President
   - Federal Senior Vice-President
   - Additional Vice-Presidents (3)

   Nominations for these positions are to be lodged with the Honorary Secretary prior to the commencement of the meeting.
5. **GENERAL BUSINESS:**
   - To deal with any matter notified in writing to the Honorary Secretary by 19 October 2018

ALL MEMBERS ARE WELCOME TO ATTEND

By order of the Federal Council

Adrian Borwick
Honorary Federal Secretary

PO Box 2495
Chermside Centre QLD 4032

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STATEMENT OF POLICY

CURRENT AS AT 1 OCT 2018

For the maintenance of the Maritime wellbeing of the nation.

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

The strategic background to Australia's security is changing and in many respects has become much less certain following increasing tensions, particularly in East Asia involving major powers, and in Europe and the Middle East. The League believes that Australia should rapidly increase the capability to defend itself, paying particular attention to maritime defence. Through geographical necessity Australia's prosperity, strength, and safety depend to a great extent upon the security of the surrounding seas and island areas, and on unrestricted seaborne trade.

The Navy League:

- Believes Australia can be defended against attack by other than a major maritime power and that the prime requirement of our defence is an evident ability to control the sea and air space around us and to contribute to defending essential lines of sea and air communication with our allies.
- Supports a continuing strong alliance with the US.
- Supports close relationships with all nations in our general area particularly New Zealand, PNG and the South Pacific island States.
- Advocates the acquisition of the most capable modern armaments, surveillance systems and sensors to ensure technological advantage over forces in our general area.
- Advocates a strong deterrent element in the ADF enabling powerful retaliation at significant distances from our shores.
- Believes the ADF must be capable of protecting commercial shipping both within Australian waters and beyond, in conjunction with allies.
- Endorses the development of the capability for the patrol and surveillance of all of Australia's ocean areas, its island territories and the Southern Ocean.
- Advocates Government initiatives for rebuilding an Australian commercial fleet capable of supporting the ADF and the carriage of essential cargoes to and from Australia in times of conflict.
- Welcomes the 2016 Defence White Paper and the Government intention to increase maritime preparedness and gradually increase defence expenditure to 2% of GDP.
- Urges the strength and capabilities of the Army (including particularly the Army Reserve) and Air Force be enhanced, and the weaponry, intelligence, surveillance, reconnaissance, cyberspace and electronic capabilites of the ADF be increased, including an expansion in its UAV capability.

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

- Supports the concept of a Navy capable of effective action in war off both the east and west coasts simultaneously and advocates a gradual build-up of the fleet and its afloat support elements to ensure that, in conjunction with the RAAF, this can be sustained against any force which could be deployed in our general area.
- Considers that the level of both the offensive and defensive capabilities of the RAN should be strengthened, in particular with a further increase in the number of new proposed replacement frigates and Offshore Patrol Vessels, noting the escort requirements of our 5 new major warships and the many other essential maritime tasks.
- Recommends bringing forward the start date of the replacement frigate program to both strengthen the RAN and mitigate the local industry capability gap on completion of the current guided missile destroyer program.
- Recommends the timely replacement and increase in numbers of the current mine-countermeasure force.
- Strongly supports the early acquisition of large, long range and endurance, fast submarines and notes the deterrent value, reliability and huge operational advantages of nuclear powered submarines and their value in training anti-submarine forces.
- The League is concerned at the very long time before the projected 12 new conventional submarines can enter operational service, noting very serious tensions in the NW Pacific involving major maritime powers.
- Recommends very early action to provide a submarine base on the Eastern seaboard.
- Notes the potential combat effectiveness and flexibility of the STOVL version of the Joint Strike Fighter (F35 Lightning II) and supports further examination of its application within the ADF.
- Supports the development of Australia's defence industry, including strong research and design organisations capable of the construction and maintenance of all warships, submarines and support vessels in the Navy's order of battle, and welcomes the Government decision to provide a stable and continuous shipbuilding program.
- Supports the efforts by Navy to rebuild the engineering capability to ensure effective Fleet maintenance and sustainability.
- Advocates the retention in maintained reserve of operationally capable ships that are required to be paid off for resource or other economic reasons.
- Supports a strong Naval Reserve and Australian Navy Cadets organisation.
- Advocates a strong focus on conditions of service as an effective means of combating recruitment and retention difficulties.

The League:

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

A NEW LEAD

VADM Mike Noonan CN handing over Deputy Chief of Navy to RADM Mark Hammond at Navy HQ Canberra.

Since our last edition there have been significant changes in our political Defence leadership and in that of our Navy. New Defence Minister Christopher Pyne has set clear priorities, noting that Australia must take responsibility for our own destiny and have a focus on areas that are geographically closest to Australia, signalling the Indonesian and Indian relationships as high priorities. Managing the rivalry between our greatest military relationship with the United States and our close economic friendship with China will be a great challenge in our region for the new Defence Minister.

The Navy League supports the promotion of Australia's self-reliance, defence manufacturing and the shipping and transport industries. With a period of massive capability growth during the years ahead, committed to largely during his time in the Defence materiel portfolio, Minister Pyne has a record of success, but the delivery of a raft of new capabilities is no mean feat. We wish him every success in delivering what is a huge capability programme while managing the diplomatic and intelligence relationships for a task of critical national security importance.

This is also an opportunity to acknowledge the appointment of Vice Admiral Michael Noonan, AO, RAN as Chief of Navy (CN). Admiral Noonan is another fine appointment to the senior ranks of the RAN and his service epitomise the Navy values of honour, honesty, courage, integrity and loyalty. His prior service in strategic and operational commands, in Border Command and as Deputy Chief of Navy position him to well advise the government on Naval issues and guarantee a strong future for our Navy.

On assuming command Admiral Noonan committed to the responsibility entrusted to him and noted that there is much to be done if Navy is to realise its full potential. His focus, and that of the Navy, is to the delivery and sustainment of our current and future force during a period of increased uncertainty and unpredictability, to its people and to the government. CN has committed to working closely with government and industry, while leading an operationally-ready Navy of committed, resilient, well-trained men and women to support our national interests and the international rule of law and we wish him well in this most challenging role.

His tenet, to 'think like a fighting Navy and fight like a thinking Navy', supported by a desire to be better every day in all Navy does and to give his best to live those Navy values stands the RAN in good stead now and for the years to come.

THE AGM OF THE NAVY LEAGUE OF AUSTRALIA

Details of our AGM are also contained in this edition. All members are welcome to attend and we encourage you to do so. The AGM is an opportunity to further explore the important issues which are canvassed in this The Navy: The Magazine of the Navy League of Australia, to hear guest speakers address emerging naval matters and mix with like-minded members. I hope you are all able to attend.

Fig 1 Minister of Defence The Hon Christopher Pyne MP against the Backdrop of NUSHIP SYDNEY (DDG42).

At the time of the AGM Federal Council also reviews the Navy League's Statement of Policy, which I continue to encourage you to review at each opportunity. It is our guiding principal.

Another important issue for the League to address is our own future and our contribution to the national debate. Much has been written in recent editions (and over many years) that, to quote a recent correspondent "despite the plethora of think tanks, newspaper articles and alternative media sources…[*The Navy*] proved far more perceptive than all of the above".

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

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

FUTURE FRIGATE ANNOUNCEMENT

Since our last edition there has been the announcement of the future frigate design. This good news began with the determination that the ships should be built in Australia and culminated recently with the announcement of the BAE Systems Type 26 Global Combat Ship design, to be known as the *Hunter-class*. Combined with the new submarines, and Offshore Patrol Vessels, the *Hunter-class* will be critical to our ability to maintain the maritime wellbeing of the nation.

IN THIS ISSUE

In addition to looking at the new *Hunter-class*, our editorial team has gathered papers on Gallipoli, and the ADF Amphibious operations in the region. I commend this edition to you and, as always, encourage your feedback.

Happy reading.

HMS SUTHERLAND (F81)

Dear Editor,

I draw your attention to an item as part of the "Flash Traffic" columns in the April-June 2018 Vol 80 No 2 Edition of *The NAVY* under the heading of "25 year old R.N Frigate deploys to South China Sea's".

The Article points out that the Type 23 Frigate HMS SUTHERLAND F81 deployed to Australasia and the Far East where she visited Adelaide and Sydney.

I take this opportunity to point out that HMS SUTHERLAND also visited Fremantle and Melbourne on her Australasian deployment.

During SUTHERLAND's port visit to Melbourne the Executive and Members of the Victoria-Tasmania Division of the Navy League, played Host to SUTHERLAND's Commanding Officer, Commander Andrew Canale and Executive Officer, Lieutenant Commander Carlos Garetta, at a Luncheon-Reception in their honour held at the "Royal Victorian Motor Yacht Club" in Williamstown Victoria.

Regards

Hon' Vice President

N.L.A Vic'-Tas' Division.

Commander Andrew Canale MVO RN and Honorary Vice President Frank McCarthy.

THE NAMING OF SHIPS IS A SERIOUS THING…

Dear Sir,

A couple years ago I read a story in your magazine on [a] guide that is used to name warships that destroyers and frigates [were] to be named after capital cities or previous ships of the class . But it doesn't seem to be the case this time. I would like to see the new frigates named after WW2 destroyers. Names from the V class, N class, Q class and the Tribals, with V class VENDETTA is a must the next I'm in two minds over VOYAGER, both ships of the named served the RAN well but I can understand and respect those that [think] the name might bring back bad memories of those who died on HMAS VOYAGER ll, but I think we can honour those sailors who died on that ship who were proud of their ship by bringing back the name. For N class, since Norman was given to a minesweeper you can choose from the other four, the Q class five saw service with the RAN it should not be too hard to choose from them . The Tribals? That's easy since ARUNTA and WARRAMUNGA are two of the earliest of the Anzac-class they would be decommissioned early in order [that] their names can be passed on. By naming them after WW2 destroyers we honour all sailors [who] served on those ships and get more to remember history of our WW2 destroyers, such as the Scrap Iron Flotilla which helped keep the besieged Australian Army supplied at Tobruk

Your sincerely

Neil King

By Editorial Board

Dear Neil,

It may be too late.

The first three of the *Hunter-class* are to be named after Admirals, Navigators, Governors and Seafarers:

1. HMAS FLINDERS (II) after Captain Matthew Flinders, CO of HMS INVESTIGATOR (I), the first ship to circumnavigate Australia);
2. HMAS HUNTER (named after Vice Admiral John Hunter RN, the second governor of New South Wales) There has been no previous HMAS HUNTER; the last HMS HUNTER (IIXX) (not named after John Hunter) was an *Attacker-class* PB sold to the Lebanon in 1991;
3. HMAS TASMAN (after Abel Tasman, the first European to discover Tasmania and New Zealand). There has been a HMAS TASMANIA (H25), an S-Class WWI Destroyer. There was to have been an HMS TASMAN, however she was renamed HMS TALENT (S37) and there was an HMNZS TASMAN, a NZ Communications Naval Base that existed between 1944 and 1956.

It would seem likely, as suggested, that at least one of the ships will be named HMAS ANZAC to keep that tradition alive. That would then leave five ships to be named.

Consideration may be given to naming the five remaining ships after Hunters, which would seem apt since the role of the Frigate is to hunt submarines. The following names might be considered:

4. HMAS DIANA – named after the Roman Goddess of the moon and the hunt, but of course also alluding to HRH The Princess of Wales, Diana, the Mother of Australia's future King. The ninth HMS DIANA (D126) was a WW2 *Daring-class* Destroyer.
5. HMAS HAWK – named after the bird of prey. There have been nine HMS HAWK's and seven HMS HAWKE's (named after Admiral of the Fleet Edward Hawke, 1st Baron Hawke, KB, PC). An alternative might be HMAS HEARNE, or HERNE (after the mythical Anglo-Celt Hunter who haunts Windsor Great Park; impersonated by Falstaff in Shakespeare's The Merry Wives of Windsor. Hearne is probably a British version of the Wild Huntsman myth). There has been a *Bay Class* Frigate named HMS HERNE BAY.
6. HMAS BAIAME – in the Wiradjuri tradition, Baiame is the creation ancestor associated in the sky with the stars of Orion, the hunter who pursued the daughters of Atlas.
7. HMAS TAGAI – in the Torres Strait Islander tradition, Tagai is found in the constellation of Scorpius (the Scorpion that kills Orion). Tagai is a mythical hero; a Fisherman who upholds sacred traditional law and who can be seen standing in a canoe; in his left hand (the Southern Cross) he holds a fish spear;
8. HMAS MALIYAN – also in the Wiradjuri tradition, Maliyan is the Wedge-Tailed Eagle, represented in Greek tradition by the Constellation of Aquila (the eagle). The 2016 RAAF 'Our Place, Our Skies' theme features the Maliyan, inspired by the RAAF Crest.

Of course, the RAN needs at least three more *Hunter-class* Frigates to make up the shortfall in AWDs. Perhaps that is where the names ARUNTA and WARRUMUNGA may yet reappear?

Captain Flinders and His Cat Trim statue unveiling by the Duke of Cambridge Aug 2014.

THE HUNTERS ARE COMING

By Dr Roger Thornhill

After three Defence White Papers describing the need for a new Anzac replacement with anti-submarine leanings, and with the number increased by one and the programme brought forward over those three White papers, the RAN finally has some certainty on its future, as well as Australia ship building industry.

A computer generated image of a *Hunter class* frigate to replace the Anzac class frigates of the RAN. Nine are to be produced in three Batch builds. (BAE)

THE SUBMARINE HUNTER

In June of this year the Australian Government announced that the winner of the SEA 5000 project to replace the eight Anzac class frigates was BAE's Type 26 Global Combat Ship. Its competitors were the Italian FREMM and a modified F-105 frigate from Spain called the F5000, the later hoping to capitalise on strong similarities with the RAN's Hobart class.

The new class of nine frigates will be known as the *Hunter class*, with the ships being built by ASC Shipbuilding at the Osbourne Naval Yard in Adelaide. Building is expected to start in 2020 with the first ship expected to enter service in 2027, and the final in 2042.

The first batch of three will be named HMA Ships FLINDERS (II) (SA region named for explorer Captain Matthew Flinders – first circumnavigation of Australia and identified it as a continent); HUNTER (NSW region named for Vice-Admiral John Hunter – first fleet Captain and 2nd Governor of NSW); and TASMAN (state and sea named for explorer Abel Tasman – first known European explorer to reach Tasmania, New Zealand and Fiji).

The class name was specifically chosen for the alternate interpretation of a 'hunter' personifying the role of the frigates as a submarine hunter, with the term embodying the pursuit of prey.

CHOICES

Quite frankly the Government / RAN have made the wise choice. The Spanish ship was the least attractive of the options, being based on 1990's F-100 frigate technology with regard to hull form and systems. It was trying to be what it couldn't with a somewhat 'grand-Pa's axe' approach. Its hull and machinery were not designed with ASW in mind and the need for acoustic stealth.

The Italian FREMM was indeed a good design and one that would have met the Defence White Paper's SEA 5000 requirement of an Anti-Submarine Warfare (ASW) platform for the RAN.

The last three White Papers emphasised ASW given the proliferation of submarines in the region, for example Vietnam has six of the latest Russian Kilo class diesel electric submarine variants with more nations in the region turning to submarines.

The RAN hasn't bought British ships since the modified Type 12 (River/Leander) class design in the 1950s. Ironically, they, like the Type 26 today, were purchased primarily for ASW.

TYPE 26

The Type 26 started life as a class of frigate for the Royal Navy (RN) to replace the very capable Type 23 class frigate, itself being born out of the hard-fought experiences of the 1982 Falkland's Conflict. The Type 23 was/is also arguably one of the world's best ASW ships.

The UK Type 26 programme began in 1998, under what was then known as the Future Surface Combatant (FSC). By March 2010, this programme had evolved to become the Global Combat Ship following the announcement of a four-year, £127 million design contract being awarded to BAE Systems. In August 2015 the first long lead items

A computer generated image of the *Hunter class* frigate sporting the six sided CEAFAR radar panel arrangement. (BAE)

for Type 26 were ordered, with manufacturing beginning in 2016. The first RN Type 26 is expected to be delivered in 2023.

The eight RN ships will be built at BAE Systems' Govan and Scotstoun yards on the River Clyde in Glasgow. Steel for the first of class, HMS GLASGOW, was cut on 20 July 2017 by the UK Secretary of State for Defence, Sir Michael Fallon.

The RAN's first Type 26, HMAS HUNTER, will be the fourth Type 26 built, thus hopefully realising the benefits of some de-risking by the parent RN programme.

POWERPLANT

The Type 26's propulsion plant consists of four raft mounted and acoustically enclosed high speed MTU diesel generators powering two electric motors and a Rolls Royce MT30 gas turbine connected to two fixed pitch propellers. The configuration is known as CODLOG (Combined Diesel Electric Or Gas). The electric motors help with range and noise reduction while the gas turbine is cut in to give the ship speed. The 8,800-tonne vessel is designed to have a top speed of 27kts.

Idling along at 15kts, the Type 26 is believed to have a range of about 11,000km — or an endurance of 60 days.

A key ASW feature is its ability to be as silent as the submarines it hunts. The ship can turn off its gas turbine engine and associated gearboxes and creep about on near-silent electric motors. Its fixed pitch propellers will be almost identical to those used by submarines to further aid in its stealth abilities.

Being a mostly electric ship will also help in the ship's ability to be upgraded with different and more energy intensive sensors and weapons, such as close in defensive lasers and rail guns, but that's a long way off.

SENSORS

The frigates' primary ASW sensor will be the Thales Type 2087 towed-array sonar, currently fitted to some RN Type 23 frigates. This sensor pod is unwound from the stern of the ship and towed behind to allow its listening devices to be lowered deep into the water and in and around temperature ducts called thermoclines. This negates the ability of submarines to hide among these sound-distorting layers of water at different depths.

The Type 2087 is a Low Frequency Active Sonar (LFAS) and consists of both active and passive sonar arrays. Thales describes the system as "a towed-array that enables Type 23 frigates to hunt the latest submarines at considerable distances and locate them beyond the range at which they [submarines] can launch an attack." The 2087 has been described as world beating however, no data to qualify the statement has yet been produced.

There is also a second S2150 hull-mounted sonar with both active and passive modes.

AEGIS

One of the more interesting decisions about how the *Hunter-class* will be configured concerns the combat management system. Rather than proceed with the evolving SAAB 9LV combat management system installed in the Anzacs and the Canberra class LHDs, the Australian Government selected the US Aegis combat management system for the frigates, made by Lockheed Martin and currently on the RAN's three Hobart class DDGs. Although SAAB Australia has been identified to develop an interface between Aegis and the non US weapons and sensors.

The word "Aegis" is a reference that dates back to Greek mythology, with connotations of a protective shield, as the Aegis was the buckler (shield) of Zeus, worn by Athena.

Many might think that Aegis is purely an anti-air system linked to the powerful SPY-1 radar system which adorns the USN's Ticonderoga and Arliegh Burke class ships. However, Aegis has evolved to encompass all sensor inputs (active and passive) as well as control of all weapon systems. Not only does it fuse all information it can also operate in an automatic mode, firing weapons based on a decision-making rules-based system configurable on-board ship and in a cluttered and electronically jammed environment.

Aegis is said to be capable of keeping an accurate track over well

The RN Type 23 frigate HMS SUTHERLAND with HMAS TOOWOOMBA. Much of the technology from the Type 23 frigate will be used in the Type 26 replacing the Anzacs. Ironically the Type 23 was one of the contenders for the Anzac class frigate project in the 1980s/90s. (RAN)

An SM-2 anti-aircraft missile being fired from a USN Arleigh Burke class destroyer. The Hunters will have a 32 cell Mk-41 VLS for SM-2 and ESSM Block II. (USN)

An RGM-84 Harpoon Block II anti-ship missile being fired from an Anzac class frigate during a RIMPAC exercise. The Block II will be used by the Hunters and has a limited coastal attack function as well as anti-ship. (RAN)

over 128 targets simultaneously. It has very large display panels in the ship's operations room to give greater situational awareness to the commander and combat team.

Aegis is used by the navies of the US, Norway, Spain, Japan, South Korea and Australia. Thus, Aegis will be in service for some time, so while maintainability won't be an issue ownership costs could be as the system is undergoing software upgrades on a regular basis. Further, any configuration change required by Australia not US based that the SAAB interface cannot handle will require additional funding effort. This could include the addition of a weapon system or new sensor not currently used by the USN. For instance, the brilliant Australian radar system made by CEA known as CEAFAR.

RADAR - CEAFAR

The *Hunter-class* will mount the innovative Australian CEAFAR and CEAFAR 2 Active Electronically Scanned Array (AESA) Radars on six sides.

CEAFAR is currently fitted to the eight Anzac class frigates and is said to provide an astounding capability against all targets in both open ocean and littoral environments.

CEAFAR 2 is a longer ranged version of CEAFAR that is currently in development that will be used by the Hunters.

In 2017 the UK announced it was considering CEAFAR for its Type 26 and Type 31 ships however, no decision has been announced as yet.

VERSATILITY

Two rather versatile and innovative aspects of the Type 26 stand out.

First, is its large multi-purpose mission bay forward of the aircraft hangar amidships. It measures approximately 385m3, it's the equivalent volume of ten 20-foot shipping containers. It even has an overhead gantry crane system to move large items such as ISO containers, or sea boats in up to Sea State 5.

This mission bay can accommodate four large rigid hulled inflatable boats, UAVs, special forces equipment, in fact almost anything that can physically fit and can be imagined could go in the mission bay. It has two large doors covering the beam openings to protect the bay from the elements.

Secondly, the vessels have a 'shared infrastructure' approach to combat systems. Both these design features are definite breaks in the path of frigate evolution.

AIR

The Type 26 has an unusually large stern helicopter deck. This can land the very large twin-rotor CH-47F Chinook troop transport helicopter.

While this large helicopter cannot fit into the frigate's hangar, one of the RAN's MH-60 'Romeo' Seahawk ASW helicopters will easily. Reportedly, the ship can also carry and operate several unmanned drone helicopters as well. The versatile mission bay is also said to have a passage way and large door linking to the hangar which could facilitate another two helicopters, bringing the maximum to three.

An RAN SH-60 Seahawk 'Romeo' ASW helicopter with dipping sonar. The 'Romeo' will be a formidable addition to the Hunters. (RAN)

WEAPONS

ANTI-AIR

Despite being geared towards ASW the *Hunter class* will still need to not only protect itself from current and future air threats but also those threatening other ships it could be escorting.

For this requirement the *Hunter class* will be equipped with a 32 cell Mk-41 VLS for the US Standard SM-2 and ESSM (Evolved Sea Sparrow Missile) Boclk II missiles. The former for area protection and the later for local defence.

The SM-2 missile has conducted more than 2,700 successful live firings with a dozen navies. It is currently in service with the RAN in the Adelaide class FFGs and Hobart class DDGs. With a maximum range approaching 150kms the latest version of the SM-2 contains an inertial and command mid-course guidance section that allows the missile's autopilot to fly the most efficient path to the target, thus increasing range. Target illumination for the semi-active homing stage is needed but only for a few seconds in the terminal phase of the interception. This capability enables the Aegis combat system to 'time share' illumination radars, greatly increasing the number of targets that can be engaged in quick succession or near simultaneously.

The USN has stated it is committed to keeping the SM-2 viable until 2035.

It is not known as this stage if the *Hunter class* will be fitted with the new fire and forget SM-6 missile slated for the Hobart class as an SM-2 replacement. It would make sense given the same combat system and launcher. The SM-6 can engage aerial targets at 400kms in a fire and forget mode or with mid-course guidance from a third party such as an Airborne Early Warning and Control (AEW&C) aircraft, another ship or even a F-35 JSF. Its fire and forget mode also enables simultaneous engagement of swarming air targets, something Aegis was also designed for.

The Block II ESSM to be used by the Hunters features a new fire and forget mode with mid-course upgrade fed to its auto pilot from the Aegis combat system. Its range remains the same as the current Block I version on the Anzacs (up to 50kms) but with the ability to defeat swarm attacks by anti-ship missiles and its ability to quad pack into one launcher provides an impressive firepower boost.

ASW

The principal ASW weapon system of the *Hunter class* will be a single SH-60 'Romeo' Seahawk helicopter. While a formidable ASW weapon system using both Sonobuoys and a dunking sonar, having only one could prove limiting as its only formidable when it's in the air. The Defence White Papers favoured two helicopters for the SEA 5000 ship however, this doesn't appear to have made it through to acquisition.

As mentioned the multi-mission bay is connected to the hangar and could house another two Seahawk 'Romeo' helicopters however, this may end up being in more of a storage configuration. Still, having such a large helicopter pad could enable two helicopter operation.

Other ASW weapons include a towed torpedo decoy and ship launched short range MU90 ASW torpedoes. Although, one has to question the continued utility of this weapon as its range is much less than the average heavyweight torpedo used by the submarines it hunts. If its purpose is to keep the submarine at arm's length then surly use of a heavy weight torpedo from the ship or even a return to the rocket launched torpedo like the US ASROC would also make sense. This would be particularly so for an ASW specialist platform like the *Hunter class*.

ASuW

In this field nothing has changed from the Anzacs or Hobart class ships.

Anti-Surface Warfare is to be handled by the ubiquitous and long serving Harpoon anti-ship missile, albeit in its contemporary Block II version with limited land attack capability. Like the Anzacs and Hobarts, the Hunters will be equipped with eight Harpoons.

To back up the Harpoon the Seahawk 'Romeo' helicopter can employ eight AGM-114 Hellfire missiles. This is a very light missile whose original design intent was for use as an anti-tank missile. So while useful against small boats, anything with a bit of size or the ability to shoot back will limit the Seahawk's anti-surface utility.

GUNS

The Hunters are fitted with one 127mm/5-inch Mk-45 Mod 4 naval gun, as used on the Hobart class DDGs, made by BAE Systems, the designer of the ship. It has a maximum rate of fire of 20 rounds per minute (for about 3 minutes) and is fed by one 20 round drum magazine below the turret ring that requires manual loading.

This would have to be one of the more concerning aspects of the SEA 5000 project. Many navies tend to follow the USN example and thus believe that a 5-inch /127mm gun must be adequate for the task of supporting amphibious operations. However, the USN model generally includes Marine Harriers/JSFs providing close air support, attack helicopters, cruise missiles, and usually a 110,000 aircraft carrier/s.

The Hunters will be the principal and most common escort used for the RAN's amphibious capability, coming closer to the shore than the Hobarts to provide protection and support. The amphibious mission is still the most difficult one conducted by navies (and armies) and

A Mk-45 Mod 4 127mm/5-inch naval gun which will be used on the Hunters. While having good range and accuracy these qualities tend to favour the platform rather than troops ashore needing suppressive fire while in contact. A situation that could be fixed in a Batch 2 design. (USN)

the most vulnerable, particularly at the point of use. While the Mk-45 Mod 4 is accurate (the 5-inch round was used in WWII as anti-aircraft round) it doesn't have the suppressive qualities required of true artillery i.e. weight of shell and sustained fire to keep an enemy's head down.

As nothing much on the market can fill the void that WWII ships used to use for naval artillery supporting troops ashore, a second gun on the Hunters could help fill that gap. For the Batch 2 build a three-metre addition to the bow section and a 'b' position created aft and above the 'A' position of the current gun would aid immeasurably to the amphibious supporting role function. It also eliminates a potential single point of failure issue experienced by the UK's 2nd Parachute Regiment when at a critical juncture in its attack on Goose Green in the 1982 Falklands conflict, its fire support ship's single gun went down with a mechanical failure.

For close in defence the Hunters will be equipped with two 20mm Phalanx Block-1b anti-missile gun systems on either beam. Each Phalanx has a rate of fire of 4,500 rpm out to a range of approx 3kms. They can be set to automatic and use two on mount Ku band radars plus a forward looking infra-red and daylight camera to detect, classify and designate targets. They can also be directed from the Aegis system in order to reduce reaction time or even manually from the weapons console for slower targets such as speed boats.

The Hunters will also have two 30mm remote controlled cannon on either beam for slower targets providing the crew with effects options on threats it encounters.

EW PROTECTION

For the all-important and much forgotten soft kill capability the Hunters are equipped with the Australia Nulka missile decoy system, BAE's innovative floating radar target buoys as well as a comprehensive electronic surveillance system integrated into the Aegis combat system to help identify threats before they appear on the ships own radar.

Soft kill is used as a force multiplier for the hard kill weapons, if used correctly. A soft kill device can attract an incoming target to a particularly point of ocean where a hard kill, such as a missile, can have a better chance of destroying it.

CONCLUSION

While the BAE systems Type 26 frigate is a great buy for the RAN it still comes with some limitations (which is being harsh). Limitations that can be worked around with some flexibility and lateral thinking by the men and women that employ them. Fortunately, the RAN has some of the best personnel in the world and the ship is large and roomy with the ability to potentially accommodate more in the future.

A Batch build also allows for improvements to be added as the class evolve to realise a better capability for the ADF. Such as a second Mk-45 gun to support our troops ashore.. ■

About the Author: Dr Roger Thornhill is a nom de plume / guerre. Thornhill has worked closely on a range of major procurement programs and has an international reputation. He previously reported on the successful selection of the Shortfin Barracuda:

Thornhill R. (2016) Sacré Bleu - Sous-Marin. *The NAVY Magazine of the Navy League of Australia* Vol. 78, No. 3, Jul-Sep: pp. 6-8.

THE KAISER AND HIS GRAND STRATEGY IN THE MIDDLE EAST

By Robert O'Neill

TUESDAY 24 APRIL 2018

This is a story about the contribution that Australian soldiers and sailors made in the First World War, but which I am setting in a context of much greater significance than the usual one of the ANZAC toehold on the Gallipoli Peninsula, secured 103 years ago tomorrow.

There are two central characters in the drama, Winston Churchill and Kaiser Wilhelm II.

PERSONALITY, PROBLEMS, & POLICIES

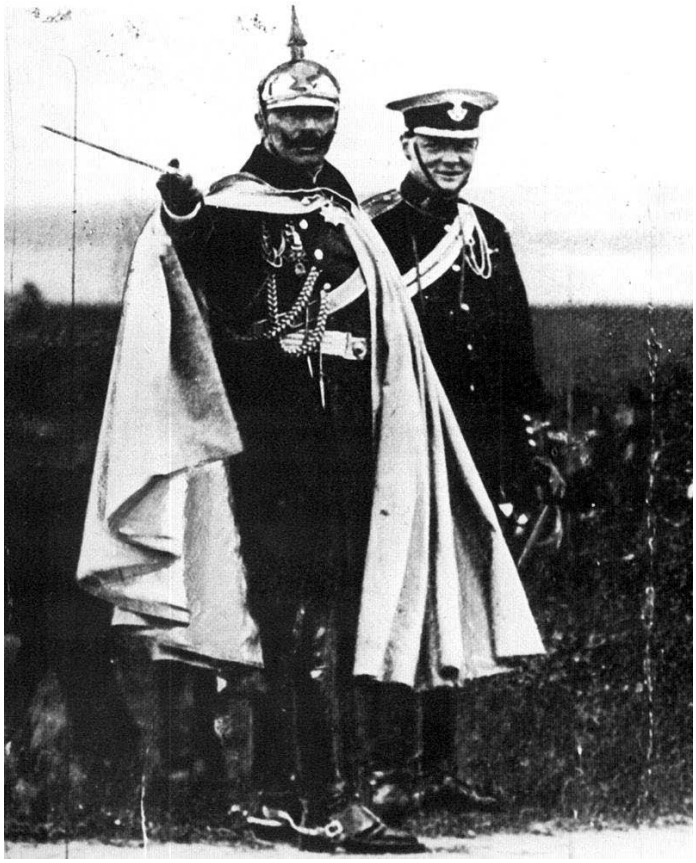
Kaiser Wilhelm II – a man of special personality, problems, aims and policies in 1914: above all he wanted a navy and an empire. He was Queen Victoria's grandson: he knew Britain well in the 19th century, when it was at its height as a great imperial power. He made frequent visits to Britain and his grandmother's court. He was intrigued by, and jealous of the British Empire, its wealth and the naval power that held it all securely together. He felt overshadowed by the record of his grandfather, Kaiser Wilhelm I, who, working with Chancellor Bismarck and Prussia's great military leader, Field Marshal Helmuth von Moltke, created the new, unified great power of central Europe, the German Empire (Deutsches Reich).

From his seat in Berlin, the Kaiser had a clear view to the Jewel in Victoria's imperial crown, India, via the Middle East. Prussia had come to have a good working relationship with the Ottoman Empire since 1835 – the earlier years of Helmuth von Moltke's professional military life were spent as an adviser to the Ottoman Army.

When Wilhelm II's grandfather unified the German states in 1871, the new Empire had much more wealth and power, and more to offer other states and businesses as a working partner than the old Prussia. German businessmen, bankers, scholars and soldiers travelled to Turkey, funded and built railways, raised the prestige of the Islamic world in Germany, and helped to modernise the Ottoman Army. As these activities all fitted with the Kaiser's personal interests, he had regular briefings when his subjects came home on short visits, and he paid particular attention to the views of Baron Max von Oppenheim, a banker, businessman and ultimately scholar, who lived and travelled in the Middle East from 1883 to 1909.

Oppenheim urged the Kaiser to take advantage of the religious strength of Islam by supporting the activities of Jihadists in the Ottoman Empire from North Africa to Afghanistan and eventually into India itself, utilising the 80 million Moslems who lived in India, to cause chaos for the British. He became well known in the Arab world, and was given the nick-name Abu Jihad, or Father of Holy War.

Oppenheim's advice received support from the German Army, particularly from one of its most prolific writers, General Colmar von der Goltz. He trained the young officers of the Ottoman Army from 1883 to 1895, many of whom became members of the Young Turks' rebellion in 1908, who led the Turkish Army through the First World War. One of Goltz's insights, derived from his experience in the Franco-Prussian War, was that a new form of warfare, People's War, had been developed by the changing political natures and technological capabilities of modern societies. He warned his Turkish students to develop capabilities and plans accordingly. Warfare would not in future be limited to the formal clashes of brilliantly uniformed armies on the open battlefield. Goltz and General David Petraeus would be in substantial agreement on this and many other points 120 years later!



Wilhelm II and Winston Churchill during a military autumn maneuver near Breslau, Silesia (Wrocław Poland) in 1906.

PRE-POSTMODERN JIHAD

The Kaiser took all this thinking about Jihad very seriously, and Oppenheim was given greater scope to gather useful intelligence, make plans and develop contacts through the Arab world. Oppenheim attracted the attention of British and French intelligence operators in the Ottoman Empire, and the German plan for Jihad was known about and studied closely by the British and French Foreign Ministries. The Americans were watching too from their Embassy in Constantinople, and they noted the technologically backward state of the Ottoman

Empire. The Embassy staff recorded that the total number of motor vehicles registered in the Ottoman Empire was only 500, of which half were in Constantinople. There were few motor roads and no petrol stations and repair facilities across the country. Movement of armies across the country would have to occur at walking pace. There was a partially completed railway from Constantinople to Aleppo, the first part of the much acclaimed Berlin to Baghdad railway, which however did not see its first train run the full distance from Baghdad to Istanbul until 1940!

The initiation of this railway was one of the results of a successful state visit the Kaiser paid to the Ottoman Empire in 1898. The Germans got there first, with the necessary money and technological skills, so the Turks kept watching Germany respectfully and hopefully. There were many British supporters among influential Turks, but they were fewer than those who preferred to ally with Germany. The British were going to have to look to their laurels if they were not to be eclipsed in Constantinople.

YOUNG TURKS

Relations between the Ottoman and British Empires were not close. They were not openly hostile in the late 19th century, but with the construction of the Suez Canal, its importance to the British Empire, and the British occupation of Egypt from 1882, there were obvious points of friction. The security of the Canal put both sides on the alert, and General von der Goltz, back in Germany in 1899, went so far as to urge the Ottoman Army to develop plans and special military capabilities for attacking the Canal.

But there were wider issues for both sides to think about in developing their relationship in the decades before the First World War. Tensions between Britain and Germany were growing. The Germans were determined to reduce the edge of naval superiority that Britain enjoyed, but Britain increased its rate of construction of Dreadnoughts under First Lord of the Admiralty Reginald McKenna. He was very concerned when Royal Naval reports indicated that the Ottoman Navy was in a parlous condition, and he was able to strengthen British influence in Constantinople by offering the Ottomans a resident naval mission to help modernise their fleet, improve its fire power, build up-to-date support facilities for modern warships at Constantinople, and begin to build modern defences for the Dardanelles themselves. The British mission commenced work in 1909.

The Ottomans and the Greeks had been at war with each other in 1897. From a British perspective, the outcome, an Ottoman victory, was both surprising and welcome. King Constantine of Greece, when he was Crown Prince in 1889, had married the Kaiser's sister, Princess Sophia of Prussia. For the next 25 years, Greece was viewed by the British as a possible danger in the Eastern Mediterranean in the event of a major conflict with Germany. The presence of Queen Sophia in Athens offered another reason for the British to want to modernise the Ottoman Navy.

In 1908, following the revolt by the Young Turks, the British Government came to take a more positive view of the new Turkey in general, hence the offer of the naval mission. The Young Turks, led by Colonel Enver, were careful not to offend Britain, but in their inner thinking, they were much more impressed by Germany's potential as a major ally.

ENTER, THE MAN FOR THE HOUR, WINSTON CHURCHILL!

Winston Churchill had risen swiftly to prominence in British politics, succeeding McKenna as First Lord of the Admiralty in early 1911. He had already established personal contact with Enver, who was to become the Minister for War in the reformed Turkish Government. They had met in Germany when both were attending the Kaiser's annual field exercises for the German Army in 1909. Their friendship developed and Churchill paid an official visit, in the Admiralty yacht, to Turkey during the summer holidays of 1911. The work of the British naval mission proceeded fruitfully, and as a result the Ottomans acquired modern minefields for the waters of the Dardanelles, torpedo tubes installed just above the water line, new fortifications and modern coastal artillery. The Germans also saw an opportunity to acquire leverage in Constantinople, and they added to the minefield and artillery defences of the Dardanelles and began to provide military aircraft and teach the Turks how to fly them. In 1913 the Germans made another move by offering the Turks a resident military mission, commanded by General Otto Liman von Sanders. This led to a major diplomatic contretemps across Europe.

Churchill raised the ante further in 1911 by accepting an order from the Ottomans for two new Dreadnought battleships, to be built by Vickers and Armstrong by July 1914. The Royal Navy itself was increasing in power, because Churchill had decided to change the fuel of the major warships from coal to oil, increasing the range of ships at sea, their speed, the ease with which they could be re-fuelled and the general convenience of having a cleaner, liquid fuel. This was a very brave move for a major naval power to undertake, but thanks to the guiding hand of Admiral Jacky Fisher, former First Sea Lord, and the political courage and adroitness of Churchill himself, it was a successful and very timely change.

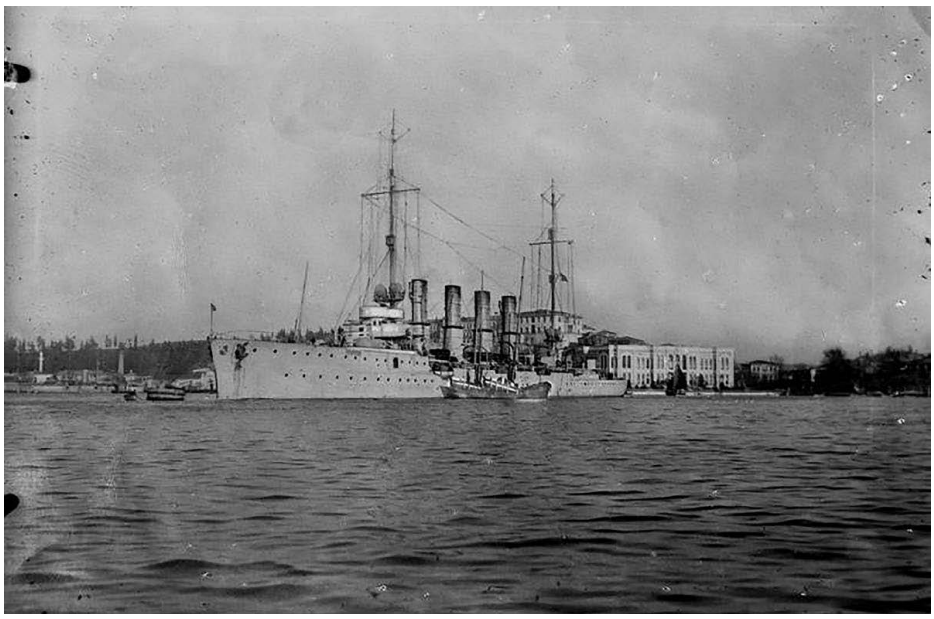
BALANCING POWERS – THE GREAT GAME

Because the main source of oil for the Royal Navy was the Anglo-Persian Oil Company at Abadan in Persia, the strategic importance of the Middle East rose yet further. But from a British perspective, the balance of power there was very delicate, as the Germans increased their influence with the Young Turks while the British were becoming dependent on secure access to oil, which came from wells and a refinery on the Ottoman doorstep. Construction of the Berlin-Baghdad railway was already under way. Britain therefore had to pay special attention to the Ottoman Empire for three reasons:

1. Security of the Suez Canal;
2. the containment of Ottoman and German attempts to spread Jihad through the Middle East, and;
3. Security of access to the Royal Navy's precious fuel oil, provided by the Anglo-Persian Oil Company.

In addition to the Kaiser, Churchill and the young Turks, there was a fourth group of leaders who were very sharply focused on events in the Eastern Mediterranean and the Balkans: the Russians. For centuries, since the fall of Byzantium to the Moslems under Mehmet II in 1453, Russia and the Ottoman Empire had been at daggers drawn. Proximity, religious differences and Constantinople's domination of the Dardanelles kept Russia and the Ottoman empire at war for over four hundred years. Since 1711 there had been seven Russo-Turkish wars, and Russia had won them all. The main battlefields had been in the Caucasus, the Balkans and the Black Sea. Why then had Britain not concluded a firm alliance with Russia a long time ago? The answer lies in the tussle for influence in Central Asia which took place between Russia and Britain in the nineteenth century, known as the Great Game.

Eventually reason held sway and Britain moved closer to Russia strategically by signing the Anglo-Russian Convention in 1907. The Great Game was now over, but Russia was in a much weakened situation, suffering humiliating defeat in the Russo-Japanese War



SMS BRESLAU remamed as Ottoman Navy Ship MIDILLI 1914.

and massive political change following the revolution of 1905. These developments encouraged the Young Turks to become aggressive towards Russia, with the objective of regaining lost territory in the Caucasus and the Balkans. In the two Balkan wars of 1912 and 1913, the Ottomans fared badly, although less so in 1913 than in 1912. But the Germans, especially the Army, became increasingly sceptical about the worth of having Turkey as an ally. They feared Turkey would become a major burden, unable to handle Russia.

As Russian agriculture modernised, their ability to export produce increased, and given the internal political and social problems of Russia, free access to the seas of the world became increasingly important both for their economy and their national stability. Hence the Russians wanted to take Constantinople, open the Dardanelles and dominate the Black Sea. Enver, the Young Turk leader, could see which way the Russian High Command was inclining, so he was determined to launch a powerful attack into the Caucasus in late 1914.

AUGUST 1914

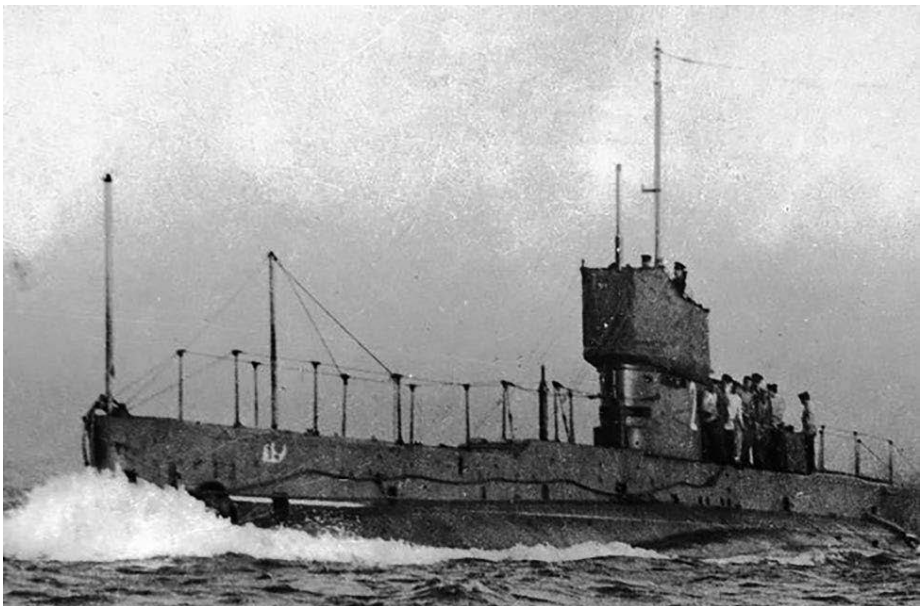
Once the First World War had broken out in August 1914, and the Germans had safely lodged their two warships, the battleship GOEBEN and the battlecruiser BRESLAU, in Constantinople after their pursuit by the British from North Africa, it was suddenly time for the British to stop their naval assistance to the Ottomans and go to war against them. Churchill cancelled the delivery of the two battleships to the Turks on 1 August, causing much anger in the Ottoman domain, where these two ships had been financed by public subscription.

Admiral Arthur Limpus, who had been in charge of the British naval mission in Constantinople for the past two years, knew where all the new defences of the Dardanelles were located, what their capabilities were, and how best they might be overcome. He, surprisingly, was then re-posted to Malta. He surely should have been brought back to the Admiralty in London, and put in charge of planning for attacking the defences at the Dardanelles. But by then Churchill was pressing for an amphibious attack to take control of the Narrows, march on Constantinople, cause riot and commotion there and topple the Turkish government. As if the Young Turks were so feeble!

THE ANZAC FACTOR

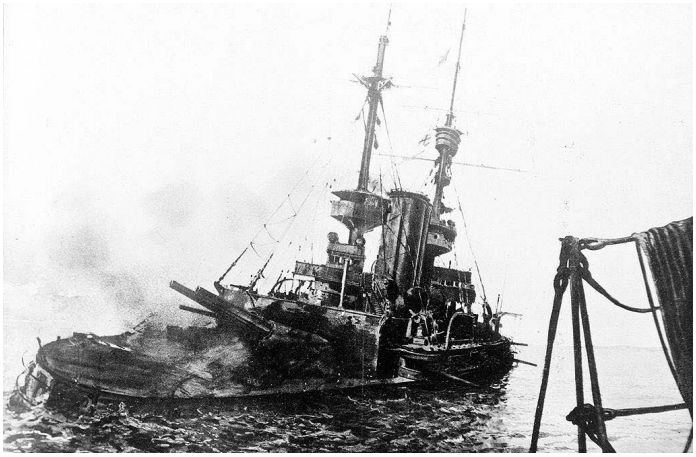
The chief obstacle in Churchill's way was a shortage of troops to send, given the demands of the Western Front in France. However in late November 1914 he was informed of the arrival of the two ANZAC divisions in Egypt and he immediately asked Lord Kitchener, Secretary of State for War, to retain them in the Canal Zone rather than send them on to France, so that he would have a significant force to put ashore on the Gallipoli Peninsula, once he had convinced his fellow ministers to invade Turkey. The situation appeared to improve when Kitchener also made available the British 29th Division, and the French promised a force of Corps size (79,000). Churchill scraped up sailors to man the Royal Naval Division, making up a force of six divisions. The Turks were able to man their defences with a force of similar size, the Fifth Army. Given the strength of their defences and the difficulties their attackers faced in getting ashore, then digging their own defences and withstanding counter-attacks, the Turks were in a very strong position when the landings were made on 25 April. They could, conceivably, have hurled their attackers back into the sea, but they were not quite ready, despite all the urging of their German army commanders and advisers. The Turks were able to sink three allied battleships when they tried to pass the straits in March, 1915.

As we know, the landing forces fought hard and well, and, three months after going ashore, they were still in place – not far inland, but in a strong enough position to be able to keep fighting, launching their major offensive in August 1915, and then continuing to hold on until the approach of winter and the spreading of sickness made the campaign too expensive for the allies to sustain, especially after the costs of a year's fighting in France.



HMAS AE2 First In (Image AWM).

RAN Bridging Train (Melboume April 1915) Last Out (Image NHSA).



HMS IRRESTIBLE (IV) sinking 18 March 1915 photo from HMS LORD NELSON (II or III).

In toto nearly one million men fought in the Gallipoli campaign. The largest contingent was that of the Turks – some 500,000 men. According to official Turkish figures, 57,000 were killed and 110,000 wounded or captured. These figures are probably a severe understatement of the actual Turkish losses. Of the allied half million, over 250,000 became casualties, including some 47,000 dead. Thus, of the million men who fought at the Dardanelles, about one in seven died and a further one in three were casualties.

RETURN TO JIHAD

This returns to the theme of this paper – the Kaiser and his hopes for a successful Jihad against the British and French, from North Africa to Calcutta. He had expert advice to follow that strategy, he had agents in place to begin to give it effect, and he had begun to concert plans for action with the young Turk leadership. Above all he could see the way clear to realizing one of his major objectives: to displace Britain as a major world power and thereby achieve a historic reputation which surpassed that of his grandfather, Wilhelm I. Wilhelm II was ready to run risks and pay millions of gold Turkish pounds to get the Ottomans to mobilize the whole Islamic world against his enemies. He pledged the money and the Turks got to work. They brought together twenty-nine of their leading legal scholars to draft the necessary fatwas for the authorization of Jihad. These were presented to the leading political, military and religious authorities for approval on 11 November 1914. Three days later the call for holy war was read out in public before a large crowd in front of the Mosque of Mehmet the Conqueror in the Sultan's name. The call was approved and followed by a decree from Sultan Mehmet V, in his authority as Caliph, that Jihad should be proclaimed and the call published throughout the Muslim world.

The call went out, but the response was less than the Turkish leaders had hoped for, particularly beyond the boundaries of the Ottoman Empire. There were many localized but small-scale responses, such as that on the railway line near Broken Hill, New South Wales, on New Year's Eve, 1914. Two "Turks" (actually Afghans) opened fire on a trainload of picnickers, killing three and wounding several others. The shooters were, in turn, shot and killed by police, and riots and the burning of the German Club in Broken Hill followed.

THE RUSSIAN FACTOR

There were major episodes of resistance to British authority in Egypt, but it is fair to say that Jihad did not take hold to the extent its initiators had hoped for. Britain did not lose its footing in the Middle East or India. One problem for the Kaiser was the internal divisions within the Islamic world which made one group of Moslems wonder if other groups were worth risking their lives for. Another was the fact that they were being asked to target the people of some major Christian nations and not others, such as Germany. A third limiting factor was the humiliation inflicted on the Turks by the Russians in the Battle of Sarikarmish in late December 1914. This battle, fought out in the snow and ice covering the countryside, was much more the métier of the Russians than of the poorly equipped, supplied and fed Turks. In essence, the Third Turkish Army was destroyed. Of the nearly 100,000 Turks sent into action, only 18,000 returned and most of them were in very poor condition. This was not an outcome to inspire the confidence of the Ottomans' Moslem allies! They did not rally to the cause in large numbers.

During 1915 the Turks were heavily occupied by the Dardanelles campaign and coping with the tremendous losses that they suffered. They also had to cope with the consequences of an unsuccessful attack on the Suez Canal. They had then hoped, after the British withdrawal from Gallipoli, to be able to move their Fifth Army across to the east in order to attack the Russians and re-take territory which had been lost earlier, but the Fifth Army was in too poor a shape to be able to march across Anatolia in winter and then defeat the Russians. They lost the major battles of Erzerum and Erzincan, and the victorious Russians were then able to turn north and take the Black Sea port of Trebizond. As a result of their Gallipoli losses, the Turks had to give up their hopes for an advance into the Caucasus and to repel the British and Indian troops landed at the head of the Persian Gulf in early 1916, before proceeding to capture the British oilfields in north-western Persia.

The Turks also had to loosen their grip on Yemen and the Hijaz as the Arabs began their powerful revolt, guided by T.E.Lawrence with British financial support. By the end of 1917, the Ottomans were on the defensive all round and Britain was increasing its effectiveness in prosecuting the war. All this flowed from the heavy costs of the Dardanelles campaign. Had that been less costly for the Turks, the results of 1916 and 1917 could have been very different. Britain was still vulnerable in the Middle East – its oil supplies and the Suez Canal were of the greatest importance, and a major Ottoman victory could have raised enthusiasm and public support across the Middle East for the weakening Jihad.

GREENMANTLE

British concern at the serious nature of the Islamic threat to their position in the Middle East and India was revealed in a remarkable book published in 1916. Many readers will know it: Greenmantle, by

Greenmantle by John Buchan in 2005 BBC Radio 4 announced it had dropped its dramatisation of Greenmantle from the schedule.

John Buchan. The author was not just a novelist or journalist. When he wrote *Greenmantle* in 1915, Buchan was a second lieutenant in the Army Intelligence Corps, working in the British government's War Propaganda Bureau in London. The Bureau had been set up when the British discovered that the Germans had one, which they were using effectively to make their case internationally. The plot of *Greenmantle* is about German plans to foment Jihad across the Middle East, North Africa and India. *Greenmantle* is the code name of the Islamic prophet who is to lead the campaign, supported by the German Government in the person of Colonel von Stumm (von Stupid in English) and a beautiful German woman who lived in Constantinople, Hilda von Einem. The British heroes arrive in Constantinople just as the Gallipoli campaign is winding down, and Buchan gives us a very convincing picture of Enver trying, vainly, to transfer powerful forces quickly from the Dardanelles to the eastern Anatolian city of Erzerum. The result is a major Russian victory, and the Ottoman Empire is thrown onto a downwards slide, not very differently to what actually happened in early 1916. The book was published in late 1916 and proved extremely popular, making the Germans and their Turkish allies look both incompetent and inhumane, and strengthening the image of the British as the true, effective natural partners and leaders of the Moslem world. It is also interesting that *Greenmantle* was well read by soldiers of the Russian Army as they were awaiting the political upheaval that would unseat the Czar in 1917. It was such a good book that it had to be treated with care in public comment and presentation in the Western media in 2001-2005.

CRITICAL MASS

While Buchan is not explicit in his comments on the outcome of the Gallipoli campaign, and the role of British and Imperial troops in making the campaign so costly for the Turks, it is none the less obvious from his descriptions of the context that the size of the Ottoman losses at the Dardanelles were de-railing Enver's plans for opening an offensive into the Caucasus, seizing north-west Persia and depriving Britain of her essential naval fuel supplies, taking over the Suez Canal and then promoting Islamic revolution through the Middle East, North Africa and India.

Therefore when we think about the Gallipoli campaign and Australia's part in it, we should set the outcome in this wider context. There is no escaping the fact that the outcome was a defeat for all the invading forces, but had that campaign not been so hard fought, the Turks might have avoided the heavy losses it caused them, and still had that critical mass of troops necessary to hold off the Russians, take the offensive into the Suez Canal area and the British oilfields, and give Islamic people much more encouragement to rise up and cause chaos for Britain. Instead the Turks became an ever- increasing burden on the Germans and Austrians at a time when both of the Central Powers were being hard pressed on other vital fronts. ■

About the Author: Robert O'Neill, AO, FASSA, FAIIA, was the Chichele Professor of the History of War at All Souls College, Oxford, 1987-2001. He was Chairman of the International Institute for Strategic Studies, London, 1996-2001, Chairman of the Imperial War Museum, London, 1997-2001, and wrote the Australian Official History of the Korean War, 1970-82. He served in the Australian Army 1955-68 and was mentioned in dispatches for his services in Vietnam as a Captain with the Fifth Battalion, Royal Australian Regiment, 1966-67. He was Head of the Strategic and Defence Studies Centre, ANU, 1971-82.

FURTHER READING:

Eugene Rogan's *The Fall of the Ottomans*, Allen Lane, Great Britain, 2015, ISBN 978-1-846-14438-7.
John Buchan's *Greenmantle*, Hodder & Stoughton, London, 2016, paperback ISBN: 978-1-514-83661-3.

UNIT CITATION FOR GALLANTRY

(For reference / additional reading see Marcus Peake's (2018) RAN Helicopter Flight Vietnam Awarded Unit Citation for Gallantry, at https://www.faaaa.asn.au/ranhfv-awarded-unit-citation-gallantry/ accessed Aug 18).

RAN Helicopter Flight Vietnam - in actuality Australia's and the FAA (RAN or RN) first Assault Helicopter Company.

Almost 50 years after being disbanded, the RAN Helicopter Flight Vietnam (RANHFV) was awarded the Unit Citation for Gallantry (UCG). The RANHFV flew active service operations with the 135th Assault Helicopter Company of the United States Army during the Vietnam War from 22 October 1967 to 8 June 1971.

Both the 135th AHC and HFV(1) were new in country when the unit formed at Vung Tau in South Vietnam in Sep/Oct of 1967 with 26 troop carrying UH-1H Iroquois and 8 UH-1C gunships.

Flying troop carrying aircraft in a formation of 10 day-in day-out into small areas with high vegetation around them tested every pilot's nerve, fortitude and skill. Troop landing made the aircraft vulnerable to ground fire and night operations without lights or landing aids added further stress. 170 monthly flying hours were not untypical and 120-140hrs for many aircrew.

A number of individuals won significant decorations. In at least one instance, the highest Australian decoration, and the first potentially to be awarded to the Royal Australian Navy could not be conferred. The case was investigated in depth. To be awarded the Victoria Cross (VC) there needs to be at least three living independent witnesses to the deed. In many cases, this rules out individual acts of valour demonstrated by sailors and aircrew acting in independent, small-unit operations – such as in submarines and the RANHFV. It means that the award of the VC is, in actuality, polarised against Navy and to a degree RAAF, and so more likely to be awarded to Army.

This, along with lack of wider recognition at the end of the Vietnam War, created a sense of recognisable injustice – that crews who had performed with such distinguished gallantry were not recognised either individually, or at the unit level. Many in Australia just wanted to move on from the trauma of the failed Vietnam War. For others, as we now know it was worse, and these brave Australians were shamed on their return. In this setting it became increasingly difficult for the RANHFV aircrews to accept any posthumous decoration, individual or unit.

Some in the FAA Association and the FAA nevertheless recognised that an injustice had been done that continued to leave fellow sailors excluded. The FAA Association and the FAA sought to bring the RANHFV Aircrews home to the Navy family and honour them. In doing so, they helped set in motion a review prepared for the Defence Honours and Awards Appeals Tribunal and led by Rear Admirals Neil Ralph, and Mark Campbell and supported by Captain Rob Ray and Commander Max Speedy. A number of written submissions were prepared for the Tribunal, which also conducted hearings during which it interviewed many former HFV members in support of the proposal.

The Tribunal recognised that the quotas for medals in the Australian system had limited opportunities for due recognition. But it is hard to accept after so many years that it could be concluded this was also because the extraordinary became regarded as 'ordinary', "just another day in the Delta"! It was not another day.

The Tribunal's report was released in May 2018, and went into great detail regarding the evidence brought before it and its reasons for its recommendations. It considered the award of a Meritorious Unit Citation would not properly reflect the extraordinary and consistent level of gallantry displayed by the whole of the HFV.

The US awards system recognises the Unit Citation to recognise superior teamwork resulting in excellent operational performance, but Australia did not have such a provision until 1992. Instead the Tribunal recommended the award of the higher Unit Citation for Gallantry; recognising the extraordinary gallantry in service of the collective unit over a period of time. Only four UCGs have been approved since their introduction and it is properly regarded as the most prestigious honour that can only be granted after careful and forensic examination of the circumstances of a unit's service. The Award's citation reads:

For acts of extraordinary gallantry in action in South Vietnam from October 1967 to June 1971.

The Royal Australian Navy Helicopter Flight Vietnam, as part of the Experimental Military Unit of the United States Army 135th Assault Helicopter Company, exhibited exceptional and extraordinary gallantry whilst engaged in offensive operations continuously throughout its four-year deployment. This exceptional gallantry was enabled by the efforts of the entire Royal Australian Navy Helicopter Flight Vietnam.

The Flight was a unique unit and every member, regardless of mustering or category, either performed their duties with demonstrable gallantry or were

The UCG is a rhodium-plated rectangular frame surrounding a ribbon of deep green, is a warrant presented to selected ADF Units for acts of extraordinary gallantry in action.

used in roles for which they were not trained and still performed bravely. The administrative and maintenance staff were required to assist in the provision of base security in addition to their normal duties and almost all of the support personnel regularly volunteered to act as aircrew employed as door-gunners and Crew Chiefs. This was in addition to the extremely long maintenance hours required to support the tempo of operations conducted by the Flight. Over the course of the operations in Vietnam, the Flight accumulated a formidable record of operational flight hours and citations for individual gallantry. This has set it apart from other operational units.

While exposed to hostile fire and at great personal risk, aircrew flew on average 50 per cent more operational hours per month than other Australian aircrew in comparable roles with other units. Aircrew were constantly engaged by the enemy, faced the danger of booby-trapped landing zones and frequently found themselves fired upon by friendly forces. The personnel who flew with the Flight arguably saw the most intense combat of any Royal Australian Navy personnel in the war. Despite the fact that none of the personnel had previous operational service and none had been under fire, they were courageous in battle, exhibited exceptional and extraordinary gallantry and did so with great skill and heroic dedication in executing a mission far removed from those for which they had been trained. Over the period of the Flight's operations in South Vietnam, five members of the unit died and 22 were wounded in action.

The extraordinary gallantry, dedication to duty and astonishing record of the Royal Australian Navy Helicopter Flight Vietnam conducting tasks far removed from the expectations of Naval service, has forever set it apart from other units. The extraordinary acts of gallantry and heroism consistently displayed by the personnel, combined with their loyal devotion to duty were in keeping with the finest traditions of the Royal Australian Navy and the Australian Defence Force.

This is an exceptional piece of Navy and FAA history that reflects well on the leadership teams, retired and serving, that maintained the faith. It will help tell the story of the RANHFV to future generations and keep the Golden Thread of Naval Service alive. An asterisk may necessarily be added to the Unit Citation for Gallantry, not simply as a 'Bar' but to signify that it also represents acts of extraordinary individual valour that could not be formally recognised. It is in some respects Navy's and the country's highest decoration.

WHO'S RULES-BASED ORDER?

Working on a non-binding basis, ASEAN countries have nevertheless been able to reach a number of regional accommodations on the South China Sea and other disputes. According to the annotated draft of the Joint Communique of the 51st ASEAN Foreign Ministers' Meeting issued in Singapore in July…'noted with satisfaction that ASEAN Member States and China had agreed on a Single Draft Code of Conduct Negotiating Text at the 15th ASEAN-China Senior Officials' Meeting on the Implementation of the Declaration on the Conduct of Parties in the South China Sea [SOM-DOC] in Changsha, China on 27 June 2018.

The framework's contents remain unreleased to the public:

- The first objective of the Framework was 'to establish a rules-based (as opposed to legally binding like the Permanent Court of Arbitration) framework containing a set of norms to guide the conduct of parties and promote maritime cooperation in the South China Sea.
- The second objective is "to promote mutual trust, cooperation and confidence, prevent incidents, manage incidents should they occur, and create a favourable environment for the peaceful settlement of the disputes." In this case also, China would like to initiate confidence-building measures in a manner that does clash with its core interests.
- The third objective aims to "to ensure maritime security and safety and freedom of navigation and overflight.

Some ASEAN states like Vietnam and The Philippines are deeply concerned that Beijing's view of freedom of navigation will undermine the concept enshrined in the UNCLOS, particularly if China declared an Air Defence Identification Zone (ADIZ) over the South China Sea as it did over parts of the East China Sea in November 2013. China's position is that the dispute does not threaten freedom of navigation. However this is significantly caveated to mean China's right to freedom of navigation in its disputed areas.

Ms Bishop as Foreign Minister trod a careful line between recognising Freedom of Navigation rights, and exercising Freedom of Navigation Operations (FONOPS). Nonetheless there have been a number of serious encroachments on RAN vessels – a number of which have gone unreported. Pressure is clearly being applied – and successfully to date – potentially to intimidate Australia into not exercising its rights of Freedom of Navigation. It is unlikely that Mrs Payne the new Foreign Minister will change this stance.

JASI ARG

The NAVY has previously suggested that a regional Amphibious Readiness Group (ARG) comprising Japan, Australia, Singaporean, and Indian Navies as a bases and extending to include Malaysia, Indonesia, Vietnam, and the Philippines may enable the coming together of regional navies to assist defuse tensions, enable rules-based agreements; promote mutual trust and cooperation; and ensure maritime security within the framework.

This would be a supporting in-out and out-in axis role for Australia and Singapore; Japan and India – that would also allow navies to exercise and maintain a permanent amphibious readiness group in the region. It may also allow Australia to better define itself to its near neighbours and promote its own sovereign identity.

KAKADU 2018

Ships – including from the PLAN – taking part in Exercise sailed out of Darwin at the beginning of September to begin the sea phase of the Royal Australian Navy's regional exercise. Kakadu is split into three phases; a harbour phase, a Force Integration Training (FIT) and finally a free-play phase. The sea phases are designed to provide participating

JS SAZANAMI (DD-113) Kakadu 2018 Flag Ship.

nations the opportunity to operate in a challenging maritime training environment.
Royal Australian Navy Commodore Warfare, Commodore Ivan Ingham, said the activities are aimed at promoting greater levels of regional military cooperation, confidence and capabilities.
'Taking part in these large-scale warfare exercises at sea gives navies the opportunity to become familiar with each other's procedures, communications and capabilities' Commodore Ingham said.
Twenty-seven nations are taking part in the exercise, some for the first time. Commodore Ingham embarked in the Japanese Ship (JS) SAZANAMI. JS SAZANAMi is in a task group with HMAS STUART as well as with ships from Canada, China, New Zealand, Malaysia, Thailand, the US and India. Kakadu completes in mid-September with a post-exercise debrief to share lessons learned and to farewell participating nations.

HMS ALBION arrives in Busan ROK as part of its Far East Tour.

CHINA RATTLES THE IRONS

China is leading unprecedented joint military exercises with Russia, sending 30 aircraft, 900 tanks, and 3,200 personnel to its neighbour's Far East provinces. Russian drills, held every four years, are the largest since the early 1980s, and the inclusion of Chinese troops, a first, is seen as a significant geopolitical shift. Moscow and Beijing each want to send a signal to Washington not to interfere in the region – or expect escalation. China's participation in the drills later in September illustrate how joint military exercises are looming ever larger in China's strategy as it expands its power and influence in the Asia-Pacific region. Its growing might is spurring other nations to initiate their own joint drills – such as Kakadu – to offset Beijing's growing influence. Such exercises are, as a result, becoming ever more common.
Joint military exercises are now a significant plank in Beijing's negotiations with the ASEAN countries regarding its rules-basec Code of Conduct for the South China Sea. As a move to exclude the US and non-ASEAN members, China proposed that all sides commit to not hold joint drills in the seas with any countries from outside the region
China's display of military might have caused Asian nations to cooperate more closely and initiate joint drills of their own. Japan said it would send one of its helicopter carriers and escort ships (an Amphibious Readiness Group) to the South China Sea and Indian Ocean, with the Task Group making stops in the Philippines, Indonesia, Singapore, Sri Lanka, and India, and conducting joint military exercises along the way.
In May, the US disinvited China from the biennial Rim of the Pacific exercise in Hawaii, despite its participation in previous years (at least in non-fighting components such as submarine safety). DoD officials cited 'China's continued militarization of disputed features in the South China Sea'. China secured a dis-invitation of its own by causing North Korea to demand the shelving of long-planned UK-South Korean exercises, as part of North Korean – US negotiations.

PERFIDIOUS ALBION?

In September Beijing expressed anger after HMS ALBION sailed close to islands claimed by China in the South China Sea in July. It derided Britain as being engaged in "provocation" and that it had lodged a strong complaint. The RN Flagship
HMS ALBION, an amphibious assault ship (LHD), undertook FONOPS after the ship's visit to Tokyo. The 22,000 ton amphibious warship carries a contingent of Royal Marines, and exercised its "freedom of navigation" rights as it passed near the Paracel Islands. The Albion was on passage to Ho Chi Minh City, where it docked on Monday following its deployment in and around Japan.
Britain does not recognize excessive maritime claims around the Paracel Islands but did not apparently enter the twelve nautical miles of the internationally recognized territorial limit.
China stated that: 'the relevant actions by the British ship violated Chinese law and relevant international law, and infringed on China's sovereignty. China strongly opposes this and has lodged stern representations with the British side to express strong dissatisfaction'.
Britain since coming close to selling its nuclear power stations and industry to China, has been seeking closer relations with Beijing as part of a post-Brexit free trade deal. Both countries have previously described this to be a 'golden era' in their relations. It is probable therefore that the UK will only go so far.
While Britain has had strong traditional interests in defending freedom of navigation, its ability to regularly maintain a presence and deploy to the South China Sea is likely to be severely constrained – given the state of the RN, cuts and the paucity of operational modern ships capable of safely being deployed to the region. The U.S. may on the one hand be pleased that one of its allies is taking the strain. On the other hand they will be relucatant to have to ride to the rescue of an ally unable to defend itself should it come under attack – as the UK found itself ultimately in both Iraq and Afghanistan.
FONOPs have not so far curtailed China's South China Sea operations, which have included extensive reclamation of reefs and islands and the construction of runways, hangars and missile systems. In April, RAN warships had what Canberra described as a 'close encounter' with Chinese naval vessels in the contested seas – that was largely played down.
HMS ALBION is one of three RN ships deployed to the Far East – for the first time in 7 years – along with HMS ARGYLL and HMS SUTHERLAND. The deployments are largely by single vessels and do not constitute an Amphibious Readiness Group – since the UKRN no longer has the capacity and capability to mount such a Task Group.
In a speech in Jakarta in August, Foreign Office Minister for Asia and the Pacific Mark Field MP said Britain was committed to an enduring security presence in Asia and urged countries to respect navigational freedom and international law in the South China Sea.
Until the UK can assure the region of its effective and competent return and commitment to the region, its posturing may come at a cost and may be destabilising.

QUIET DIPLOMACY

The Navy and DFAT are to be congratulated. Showing the type of diplomacy Navy does best, often at the junior officer and sailor level, and working closely with our good neighbours to the north – both the Indonesians and the Philippines – confidences and respects have been won. It could not have been done by boots on the ground, or Fly-in; Fly-out from the air. Only Navy, with its light touch, small footprint; poise and ability to influence and control its space could have achieved such veritable sea changes. Diplomats could not have done it alone, or without the semi-autonomous relationships that Navies allow to be generated. Our neighbours to our north need our help – rather than the usual litany of Human Right demands that simply create more violence and drive people into corners. In contrast, by first doing no harm (rather than doing right / good) and seeking to assist in a disciplined way, Navy has opened doors hitherto closed – and won rare praise. Praise that for good reasons will not be divulged for many years. We should nonetheless take pride that 'the Navy's there', and still doing what the RAN has always done well and steadfastly.

THAILAND'S S26T SUBMARINE

In a response to the way in which Western diplomats, media, and NGOs disenfranchised the Thais leadership and its military, the Royal Thai Navy selected China's Wuchang Shipbuilding to build its S26T (Thailand) diesel-electric submarines (SSK). Steel was cut on 4th September at Wuhan, China, in a ceremony attended by senior officials from the RTN.

The S26T SSK is derived from the People's Liberation Army Navy's Yuan-class (Type 041) submarine. The significant issue is that in the region, China has a number of key allies including now Thailand, Cambodia, Laos and Myanmar. It appears increasingly difficult for Western nations to maintain a balance and alliances with the emerging autocracies of South East Asia – who are increasingly hostile to advice and coercion being applied by the democracies. The more the media, NGO, human rights democracy pressure – the more the drift towards passive and even active cooperation with China. The South China Sea is a critical issue – but the Mekong Delta remains the regional touchstone. And current Western policies are doing little to draw ASEAN nations into the fold – and much to push them out.

NAVAL GROUP EGYPT

France's Naval Group is establishing a permanent local presence in Egypt. CEO Hervé Guillou announced the formation of the new subsidiary on 6 September just prior to the launch of the GOWIND a 2500 corvette in Port Said at the Alexandra Shipyards (ASY). Naval Group is providing ASY with transfer of technology and material assistance for the local build of three *Gowind-class* 2500s.

A larger variant of the *Gowind-class* forms the basis for the Royal Malaysian Navy's Littoral Combat Ship programme. The Gowind 2500 design, includes Naval Group's Strategic Energy Technologies Information System (SETIS) combat management system (CMS); a Thales-supplied sensor suite comprising the SMART-S Mk 2 3D surveillance radar, a Vigile 200 Mk 3 electronic support measures (ESM) system, a Kingklip hull-mounted sonar, a CAPTAS-2 low frequency active variable depth sonar, and a STIR EO Mk 2 radar/electro-optical tracker.

JMSDF UPGRADES TO SM-6 AIR-DEFENCE

The Japanese Ministry of Defense (MoD) has acquired Standard Missile 6 (SM-6) air-defence missiles, decided to equip two JMSDF improved Atago-class destroyers.

GREENWHICH STATION

BAE Systems has secured a contract worth approximately $300M to upgrade the diesel generators in the British Royal Navy's six Type 45 destroyers. This is the second part of a two-phase program, called Project Napier, which aims to finally remedy the long-standing reliability issue that could leave ships stranded without any power and render them combat ineffective in the middle of operations.

BAES together with subcontractors BMT Defense Services and Cammell Laird, will replace the two existing diesel generators on each Type 45, add a third one, and modify the high voltage systems on the ships so they can handle additional power. This is in addition to the $200M Equipment Improvement Plan (EIP), in which Rolls-Royce is working to upgrade components of the destroyers' gas turbines. The UK MoD expects the first destroyer with all the new modifications to be be ready by the end of 2021 and the entire fleet to have received the upgrades by sometime in the mid-2020s. Until then the UK is without an effective and reliable Air Warfare Destroyer – having prematurely retired its ageing but highly effective Sea-Dart fitted Type 42. When the UK also reduced from 12 Destroyers to 6.

RETURN TO THE ARCTIC

For the first time since 2007, a Royal Navy submarine has operated under the Arctic ice. HMS TRENCHANT surfaced in the Beaufort Sea in August, joining two US Navy boats exercising submarine warfare skills under the polar ice cap for Ice Exercise (ICEX) 2018. The exercise is held on a biennial basis and is run by the US Navy with participation from the RN and Canadian Navy. This year USS Connecticut and USS HARTFORD were joined by HMS TRENCHANT. The last RN submarine to participate in ICEX was HMS TIRELESS in 2007. A temporary ice camp (Camp Skate), home to over 100 personnel has been constructed on the ice shelf in the Beaufort Sea to support the exercise.

Since the Cold War, the Russians have used the Arctic as a bastion to hide their Ballistic missile submarines, while building a series of bases in the Arctic; expanding their fleet of icebreakers; and claiming rights to large parts of the seabed. ICEX was announced back in 2016 but TRENCHANT's participation was at times doubtful. The six active SSNs of the RN's submarine force is creaking at the seams and the institutional operating knowledge and experience has largely been lost. No Astute class submarine has yet participated in an ICEX, despite being designed to do so – raising further questions as to the capability of the class. There has also been mounting concern that budget pressures meant that the seventh *Astute-class* submarine would not be built. ■

HMS TRENCHANT Surfaces in the Arctic (Image UK MoD).

THE CARRIAGE OF GOODS BY SEA

The carriage of goods falls into two broad categories; the liner trade and bulk cargoes.

Liner cargoes generally involve smaller consignments of goods, now often containerised, carried in vessels which trade in regular services. Cargo is booked through a Shipping Agent representing the Shipping Company who consolidates cargo for a particular trade. The cargo owner pays a freight rate based on the value, volume/ weight of the consigned cargo. In recent times the container business has seen the larger shipping companies joining into consortia and employing large vessels of 15,000 – 20,000 teu capacity using 'hubs' at major ports such as Singapore, Hong Kong and relying on smaller feeder vessels to distribute goods to smaller ports.

The majority of cargo, however, is carried in bulk – dry and liquid, on terms negotiated under separate contracts known as Charter Parties. In the Dry Bulk market, Charter Parties (C/Ps) have been devised for specific trades and commodities and are internationally recognised. They are dozens of such C/Ps for such as the Austal C/P, designed for Australian wheat cargoes, Baltic Timber, New York Product Exchange, Coal C/Ps specific to Newcastle, NSW and similar C/Ps for US, South Africa coal. These C/Ps can be modified according to requirements, however, each Charter Party contains several dozens of Clauses, in which almost every word of which, have been legally contested over the centuries, thus there is limited scope for major change.

In the context of discussing vessel chartering, actual ownership of the chartered vessel is not important for when a hirer charters a vessel he becomes the Disponent Owner and for the purposes of his relationship with the cargo owner (Shipper) he assumes all the Owner's responsibilities.

Goods carried under the above contracts are Voyage Charters, the Owner (or hirer) agrees to undertake carriage of the goods for a fixed sum or for an agreed rate per tonne. The Owner builds into the rate, all his anticipated ship operating costs, fuel, port charges, stevedoring, based on his estimate of the voyage time, including the expected time to load, and discharge the cargo. The C/P will specify the allowed loading and discharge time and if this is accomplished in less time, the shipowner pays a 'penalty' called Despatch, time in excess of the agreed time incurs Demurrage, which is usually based on the ships daily running cost.

In order to carry the cargo, our Charterer will need to charter a ship to carry the goods, which will involve a separate Charter Party. There are various options available to him, which depend upon the duration of the intended voyage or voyages for which intends to employ the ship. There is the option of a back-to-back Voyage C/P, with the actual shipowner with amended freight rates, but the actual shipowner will probably prefer a Time Charter .

Under a Time Charter, the Charterer agrees to pay the Owner for the entire time that the ship is employed, from delivery at a specified time and place, to redelivery at a specified time and place. The period may extend for months or years. Often delivery will take place before the first loading port, for instance a ship chartered to load grain in Fremantle, may deliver in Singapore and if discharging in a remote port, the C/P may require the ship redeliver in a recognised shipping area to be agreed. Under the C/P, the shipowner provides the Master and crew and is responsible to the Charterer, now Disponent Owner, for its operation.

The Charterer pays hire based on an agreed daily rate on delivery and thereafter usually on a monthly basis. He also pays for cost of bunkers on board at the time of delivery with the first hire payment. He will provide bunkers throughout the duration of the Time Charter and sell back the bunkers remaining on board at the conclusion of the charter.

Another chartering option is a Demise perhaps better known as Bare Boat charter.

This is an option employed by large companies, such as BHP, in the past, used to supplement their fleet. Charters extended for years and the Charterer provides his own Master and crew, paying all operating costs including insurance.

So who puts all this together?
The Shipbroker.

Shipbrokers act as the intermediary between the various parties acting separately between Cargo Owner (Shipper) and the Disponent Owner (or Shipowner) in Voyage Charters. Similarly, brokers act separately between for Shipowner and the Disponent Owner in their C/Ps.

Their job is to draw up the respective C/Ps using their expertise to represent the interest of their clients, including protective clauses. Their fees are based on a commission, usually around 2 ½ % of the Freight and Hire. Shipbroking until recent years was centred on London, at the Baltic Exchange, with many of the larger broking houses having representation in Australia and other shipping centres. In recent years much of the broking activity has moved to Asia.

Charter Party Terms

Whilst many Charter Parties Clauses often seem quaint, they are nevertheless very precise and relevant and attempt to cover all the anticipated eventualities of the voyage and period of hire.

Clauses such "Mutually Excepted Perils "

'And neither the Vessel nor Master or Owner, nor the Charterer, shall, unless otherwise within this Charter expressly provided, be responsible for any loss or damage or delay or failure in performing hereunder, arising from :--

Act of God; act or war; perils of the seas; acts of public enemies, pirates or assailing thieves; arrest or restraint of princes, rulers or people; or seizure under legal process provided bond is promptly furnished to release the Vessel or cargo; strike or lockout or stoppage or restraint of labour from whatever cause, either partial or general; or riot or civil commotion.'

Every phrase of the above Clause has been legally argued prior to its inclusion. ■

First 20000 TEU vessel calls on Rotterdam MOLTriumph 19 May 2017.

WARSHIP DESIGN IN A RAPIDLY CHANGING WORLD

By John Jeremy

With the recent selection of BAE Systems' Global Combat Ship — Australia (the Type 26 frigate) as the future frigate for the Royal Australian Navy the shape of the future RAN is substantially defined, at least in so far as major combat ships are concerned. With an intended life of around thirty years, these ships are likely to be in service, if present plans are not dramatically disrupted, well into the latter part of this century — 2070 and possibly beyond. History tells us that, during that period, there will be radical changes in the strategic, technological and sociological environment in which they will be required to operate.

Maersk Triple-E Container Ship.

COMPLEX AND EXPENSIVE

Modern surface warships are complex and expensive systems. Inevitably the number of ships we can afford is limited. Moreover, the ships themselves are only part of the equation. Basing, logistic support, and recruiting and training the highly-skilled crews they need, will also demand considerable resources. Whilst 21st century conflicts are unlikely to be a re-run of the great wars of the 20th century, present trends suggest that demands on Australia's armed forces might be frequent, varied and, at times, intense. This presents challenges for the designers of modern warships for any navy — the ships they design must be very capable and adaptable to changing demands.

COMMERCE & WAR DESIGNS

The modern container ship is a remarkable vessel for its size and capability. Consider, for example, the Maersk Triple E-class container ships, of which twenty have been built or are on order. The latest of these ships can carry 18,270 TEU, are almost 400 m long with a beam of 59 m, have a deadweight tonnage of over 210,000, are powered by two 8-cylinder diesel engines each rated at 29.7 MW and have a service speed of 19 knots with a top speed of 25 knots. These very large ships greatly benefit from modern automation of machinery and systems and have a crew of only thirteen. Soon we will see autonomous container ships at sea, with the first autonomous, electrically-powered container ship to be launched in 2020 and operating autonomously in 2022.

Whilst these ships are not typical of the majority of cargo carriers plying the oceans of the world, they do illustrate the fundamental principles governing their design — cargo carriers are designed around their cargo and do most of their work in port, loading and unloading, whilst at sea they steam steadily at the most economical speed routed, if necessary, to avoid the worst of the weather. Power demands for propulsion, hotel services and cargo support are not greatly variable during the voyage. Environmental requirements are important — low fuel consumption and minimum emissions are now a high priority but, until recently, underwater radiated noise was not.

These principles are true for most merchant ships. There are exceptions, of course. Research vessels of various kinds, for example,

do all their work at sea and can be very complex in their outfit and cruise ships are immensely complex hotels at sea where safety of the thousands of people on board is an overriding priority.

Naval vessels vary in function, from high-level conflict to logistic support. Warships are built to fight. They do most of their work at sea. Their payload is not containers or oil but, weapons including guns and guided missiles, surveillance systems, target acquisition and tracking and fire control systems (the combat system), communications systems, aircraft (usually helicopters), electronic warfare systems and self defence systems. The latter also includes nuclear, bacteriological and chemical defence (NBCD), requiring gas citadels and wash-down systems. NBCD became less of a priority after the end of the Cold War, perhaps, but is re-emerging today as weapons of this nature may become the tools of the modern terrorist. Warships must be able to take hits, absorb and control damage, and keep fighting.

The design of warships is driven by the general arrangement.

HMAS TORRENS (DE53).

The warship's payload must be integrated into a hull which can provide an environmentally-protected shelter capable of operating in a wide range of sea conditions, and surviving in virtually any conditions the ship may encounter. Today, her crew comprises highly-trained engineers and technicians who maintain and operate her payload, and professionals who keep the ship at sea and ready for action. They need to have accommodation in the ship which enables them to be fed and rested so that they can perform to the high level required when the ship goes into harm's way — a substantial driver of internal volume. The crew are also a very valuable and expensive asset so keeping their numbers to a minimum is desirable subject, of course, to the need to muster sufficient numbers for damage control, boarding parties etc.

THREE PRIORITIES

It is often said that there are three priorities for a successful warship — the ability to float, move and fight. Each priority demands characteristics in the ship which are particular to a warship.

The ability to float depends on hull strength and subdivision, stability (both intact and damaged), hull services and seakeeping.

The ability to move depends on the main and auxiliary machinery and the systems which support it, and the resistance of this machinery to shock and other damage. Maximum speed, range and endurance influence fuel capacity and machinery space volume. The seakeeping ability of the ship is also relevant, particularly in extreme conditions.

Fighting not only depends on the weapons and the combat system, but hull and machinery characteristics like the ship's size and seakeeping ability (which relate to crew fatigue and weather-imposed limits on weapon deployment), radar cross section, noise and infra-red radiation and weapon-system support services like stabilised power supplies, air conditioning and chilled water.

In designing any warship all these factors must be taken into account. Somehow, those responsible must also estimate how much the payload may change over the life of the ship, how the expectations of her crew may change (accommodation standards, access to communications, email etc.) and how emerging weapons and combat systems may affect the layout of the ship and the services she must provide (directed energy weapons and autonomous underwater and surface vessels, for example). These are all major challenges for warship designers who are also under pressure to control the growing cost of the ships they design.

One aspect of warship design which has a significant influence on cost is the design standard. Historically, nations have maintained

HMS OCEAN (L12) as RN Flagship 2011-2018 Note Range of Operational aircraft allocated to ARG Tailored Air Group in comparison to HMAS ADELAIDE / CANBERRA allocation.

naval design standards of their own, or adopted those of allies or the nations which have supplied their ships. In Australia, for many decades, we applied British naval standards, as defined by the Admiralty (later the Ministry of Defence). Developed over many years, these standards represented a vast accumulation of knowledge and experience, but the maintenance of the standards was a considerable burden as budgets became tighter and skilled naval architects and engineers became fewer.

In Australia, during the late 1960s, the RAN Technical Services developed a set of Australian standards, the Naval Construction Manual. This voluminous production coincided with the last construction in Australia of naval combat ships for many years — the destroyer escorts Swan and Torrens. It was to be 22 years after the completion of Torrens before another combat ship was completed in Australia. The purchase of the FFGs from the United States, and the earlier DDGs, introduced US Navy standards to Australia — in many ways quite different to our own standards as set out in the NCM which fell into disuse. Later acquisitions from different countries of origin resulted in a diversified range of naval standards, all within the one navy.

CLASSIFICATION & IDENTIFICATION

Meanwhile, Classification Societies were steadily developing their rules and procedures for commercial vessels, presenting an opportunity for navies to make use of their expertise and experience in the development of the design of these ships. In Britain, for example,

USS GEARING (DD710) Cheers Side.

ollaboration between Lloyd's Register and the Admiralty had taken place for many years, but it grew in the 1950s with assistance for the submarine nuclear propulsion program and, later, with the design and construction of the helicopter carrier HMS OCEAN. This was the first time (apart from the World Wars) that Lloyds had been involved with the classification of a warship, as distinct from an auxiliary.

In 1997 Lloyds was asked to develop Rules for Naval Ships — in a collaborative effort with the Ministry of Defence. The development of these Rules has enabled the navy to take advantage of the best in hull and machinery technology from the commercial world whilst the navy concentrates on the military aspects of ship design. The Rules were published in 2000, and have been used for the design of Royal Navy ships since then. The largest ships built for the Royal Navy under survey by Lloyds have been the Queen Elizabeth-class aircraft carriers.

Lloyds Rules for Naval Ships have also been adopted by other navies. The RAN has been working with Lloyds since 1989, when HMAS WESTRALIA was acquired from the Royal Fleet Auxiliary. Gradually, other existing RAN ships have been brought into class and the involvement of Lloyds continues, with considerable advantages during construction and maintenance.

There is a natural tendency to suggest that modern warships are too big, and should be reduced in size to reduce cost. Quite apart from the reduction in capability which may result, there are other important factors. By comparison with the RAN's new offshore patrol vessels, their ancestors, the Attack-class patrol boats, designed and built in Australia in the 1960s were tiny. The implications of the small size were well known to many who served in them. Increased size has benefits for crew comfort, weapon system performance and aircraft operations. The cost of the hull is a relatively small component of the total ship cost and increasing the size of the hull is comparatively inexpensive — steel is cheap and air is free.

POST, POST WAR?

The need for more capable ships in the post-war years saw the conversion of large numbers of the many destroyers built during the war into antisubmarine ships, but their slightly older sisters, built just before or in the early years of the war, were scrapped because their machinery was vulnerable to shock and electrical capacity inadequate.

That period of rapid change also resulted in ships being fitted with additional armament and complements grew accordingly, reducing habitability standards which were barely acceptable anyway.

At the end of World War II the US Navy had large numbers of new destroyers of the Fletcher, Sumner and Gearing classes, which were rapidly becoming obsolescent. The latter two classes were the larger ships with a full load displacement of 2,890 tons — small by

HMS ROTHESAY (F107) a Type 12 M Escorts a Soviet-era Whiskey Submarine (1987).

today's standards. The complement of these ships was 336 men. Accommodation is a great consumer of space, and these ships were very cramped. The only effective way to improve living conditions on board was to remove capability, create addition space by enlarging the superstructure or reduce the complement, changes possible only during major modernisation.

With the expected rapid growth of the Soviet fleet of fast submarines, the US Navy was concerned that it would not have enough ships to counter the threat. Some of the WWII destroyers were given limited modernisation to function as antisubmarine destroyers but in 1958 it was decided to commence a large scale modernisation program to extend the life of many of these destroyers by five to ten years. Known as the Fleet Rehabilitation and Modernisation Program (FRAM), the program concentrated on the Sumner and Gearing classes of which 127 ships were modernised between 1960 and 1965.

The modernisation was very extensive, with enlarged superstructures providing additional space for modern electronics and anti-submarine weapons like ASROC, a rocket-delivered homing torpedo. An early drone antisubmarine helicopter (DASH) was also carried by some ships.

Accommodation for the crew was also improved, although not much.

The FRAM program US for destroyers was somewhat akin to the British conversion of 43 World War II Emergency Program destroyers into Type 15 and Type 16 antisubmarine frigates.

For both navies these modernised ships were stop-gaps until new ships could be designed and built. One of the immediate post-war British designs was the Type 12 antisubmarine frigate, which began to enter service in the mid-1950s. Whilst the design was intended as a North Atlantic convoy escort, it proved to be very adaptable, growing into the extremely successful Leander class general purpose frigate. Seventy Type 12 frigates of various variants were built for seven navies between 1956 and 1981. Some are still in service today, 68 years after the completion of the original design. These ships, steam powered, had a complement (in Australian service) of up to 257. Accommodation was still cramped but somewhat improved when compared to immediate post war conditions. Six Dutch-built ships still serve in the Indonesian Navy — all converted to diesel propulsion which has reduced the complement of the 50-year old ships to about 180.

Two developments were to greatly influence the design of new ships during the 1960s — the guided missile and the gas turbine. The former required major changes to the ships' general arrangement and the gas turbine, in particular, enabled crew size to be reduced.

Two ship designs from the late 1960s and early 1970s are notable — the US Navy's patrol frigate and the DD963-class destroyer.

PLUS ÇA CHANGE

Despite a program to build some 62 destroyer escorts during the 1960s, the aging US fleet of modernised World War II destroyers, and the continuing need for a fleet of antisubmarine ships to keep the sea lanes open in peace and war, meant that a large number of new escorts were needed to fill the gap. In 1970 studies were begun of an escort ship with relatively simple weapons and electronics which would be capable of escorting mid-ocean convoys and defending ships against submarine, missile and aircraft attacks. A program to build 50 of these ships was approved in January 1971, designated the patrol frigate (PF 109 class). They were later reclassified as guided missile frigates (FFG 7 class).

An important consideration in the design of these ships was to control the cost, with a limit set of $50 million 1973 dollars. An upper limit was also set on standard displacement of 3,500 tons. The complement was to be reduced to 176, including helicopter crews. All gas-turbine propulsion was adopted, with 40,000 HP delivered to a single screw. An extensive program of land-based test and evaluation of the machinery installation was begun and the weapons were chosen from advanced but proven systems — the Mk 13 GMLS missile launcher, well proven in service in 30 destroyers and frigates in six navies, a evolved version of a Dutch fire control system, known in US service as the Mk 92, and a 76 mm rapid-fire OTO Melara gun.

Australia adopted the FFG 7 following the cancellation of the planned light destroyer (DDL) in 1973 and six were built for the RAN, four in the US and two in Australia. Six FFGs were built in Spain and eight were built in Taiwan. Of the 71 ships built, 23 remain in service today in six navies, 48 years after the design was conceived.

The patrol frigate design was criticised by some because of its single screw, small gun and austere construction standards. It is fair to say that some of the early ships were a bit rough — they certainly would not have met the standards set out in the RAN's Naval Construction Manual, but the design has proved to be very successful — the ships worked. It has also been adaptable as the Australian modernisation of four ships has shown, despite the limitations originally set on the design. It is notable, however, that the ships were never called upon to fulfil at least one of their intended roles, to protect North Atlantic convoys from submarine attack.

The other design from the late 1960s worthy of mention is the DD963 Spruance-class destroyer. This adaptation of the DD963 hull was not ideal — the ships pitch hard in heavy weather and often roll 25–30°. Rudder angle is prudently limited at high speeds to avoid excessive angles of heel. However, budget constraints and the lack of development of new designs left little alternative. A new design was required to replace the DDG2 and DDG37 classes of destroyer, and over a period of six years from 1980 the US Navy developed the design of a new destroyer, the DDG51 Arleigh Burke class, which had a shorter and wider hull but could accommodate Aegis with considerably more firepower than the FFG7-class frigates and at less cost than the cruisers.

The design of the DDG51 class has been modified over the years. The first 28 ships, or Flights I and II, initially had a full load displacement of 8,184 tons and are 154 m long overall with a beam of 20 m.

USS INDEPENDENCE (LCS2) and USS CORONADO (LCS4) OOW Manouevres.

Propulsion is similar to the Spruance-class with four gas turbines driving two shafts for a speed of about 30 knots. In Flight IIA ships a helicopter hanger was added and Flight III, introduced in 2017, incorporates a new radar, the Air and Missile Defence Radar or SPY-6, together with improved electrical power and cooling systems. Full load displacement has grown to 9,600 tons. The complement is 323 people.

One of the final contenders for Australia's air-warfare destroyer program was a smaller, new-design ship based on the DDG51. As built the Hobart-class DDGs, based on a Spanish design closely related to the US ships in equipment and standards, are somewhat smaller at 7,000 tons with an overall length of 146.7 m and a beam of 18.6 m. Propulsion is diesel and gas turbine. The complement, at about 180, is significantly lower than the US ships. The armament is similar, although ammunition capacity is smaller.

Over the last twenty years or so, the designs of modern destroyers or frigates — the distinction is moot — have developed towards ships of similar size and capability and cost. European examples are the British Type 45 destroyer, the French and Italian ships of the Horizon class, the French and Italian FREMM frigates and the Spanish F100 frigates. They are all very similar, and all these designs have a family resemblance to designs which were developed in the 1970s. Taking into account their expected life, there could be a period of changeless surface warship design in the navies of the world not seen since the late 18th and early 19th centuries.

RADICAL POTENTIAL?

In recent years two radical new warship designs have been produced, but both have yet to prove their effectiveness and suitability for their naval role. One is the US Navy's DDG1000 class of very large destroyer and the other is the Littoral Combat Ship (LCS).

The DDG1000 USS *Zumwalt-class* program began in the early 1990s to produce a multi-mission destroyer capable of providing naval gunfire support to shore forces and to introduce new technologies which might be used on future naval ships. Thirty two ships were originally planned, but only three will now be built. They are fitted with two new-design 155 mm guns capable of firing long-range rocket-assisted guided projectiles, but that munition has been abandoned because each round would have cost about $US800,000. So far no replacement ammunition has been selected and the guns may even be removed. Moreover, the role of the ships has changed from naval gunfire support to offensive surface strike. The 80-missile capacity vertical-launch system will now carry anti-ship and land-attack missiles and more may be carried if the guns are removed.

The Littoral Combat Ships (LCS) are also advanced technology designs. Whilst it had been planned to select only one design for production, two very different ship designs will provide half each

of the 32 ships to be built. One is an aluminium trimaran designed by Austal in Australia and built by them in Alabama, and the other is a steel-hulled monohull designed by Gibbs & Cox and built by Fincantieri Marinette Marine in Wisconsin. The LCS was intended to be an inexpensive surface combatant equipped with modular mission packages, including unmanned vehicles. The roles, depending on the mission module embarked, could be antisubmarine warfare, mine countermeasures and surface warfare, with many subsidiary roles of a general purpose nature. The LCS are high-speed ships, around 40 knots maximum speed, and have a core crew of 50 (ten more than originally planned) with another 38 for the embarked aircraft and mission package.

The US Navy originally planned to acquire 52 LCS but the ships have been criticised for considerable cost growth and concerns about survivability and armament. The US Navy is now seeking industry proposals for a new class of 20 frigates, possibly based on one or the other of the existing LCS designs or on an existing ship design from another source. US shipbuilders are offering ships based on the US Coast Guard's National Security Cutter, the Italian FREMM and the Navantia F100, the last two similar to the ships offered to Australia. If the project proceeds, the first ship should be funded in 2020 with all 20 ordered by 2030. FFG(X), as the frigate is presently designated, will in many ways be a successor to the FFG7 class guided missile frigates which are still highly regarded.

FAST FORWARD

Against this background of design uncertainty, new technologies are rapidly being developed which could change the battle space in which the new ships will have to operate. Autonomous underwater vehicles are now being developed which are likely to have a role in discreet surveillance and, if were to be decided to be morally acceptable, even hostile operations. Unmanned aerial vehicles are becoming familiar and are likely to be part of the equipment of more ships which would otherwise be unable to operate manned aircraft.

In the Australian context, present RAN new construction plans will not result in a significant increase in the number of ships and submarines for many years. The area of sea in which Australia has an interest is very large and we may well find that we simply never have enough ships. Surveillance of these vast areas could well become practical with modern developments like Ocius Technology's Bluebottle ocean drones, developed with the aid of a grant from the Defence Science and Technology Group. The prototype, Bruce, is a six-metre craft with a solar sail which can deploy sensors, cameras or ROVs on 140 m of cable. It can achieve 5 knots under power and survive up to sea state 7. Drones like Bruce could be used in conjunction with manned and unmanned aircraft, surface ships and submarines.

Developments such as these may mean that the future RAN will need new types of ship, possibly smaller and less complex than today's frigates, but larger than the offshore patrol vessels, to support and deploy unmanned and autonomous vehicles — a modern corvette perhaps?

Every warship design is a compromise. As the cost and planned life of warships increases, new designs must have the flexibility to accommodate new technology and modular payloads as they become practicable and affordable. The Type 26 frigate selected for Australia's new frigates is a 21st century design and will have that capability. However, we cannot be sure that the world in which we live will not change rapidly and with little warning. Current procurement practices are protracted and complex. Most ship design work has been outsourced to contractors — Total Package Procurement is alive and well. Shipbuilders and ship designers will offer vessels which meet the customer's stated requirements — rarely more — and a system which seeks proven design solutions does not encourage innovation. There is a powerful argument for the restoration and nurturing of naval in-house design capability. This would not only ensure that the navy can be an informed customer, but future Chiefs of Navy should have the resources immediately available to help explore design solutions, conventional and radical, and answer the question 'What if?' ■

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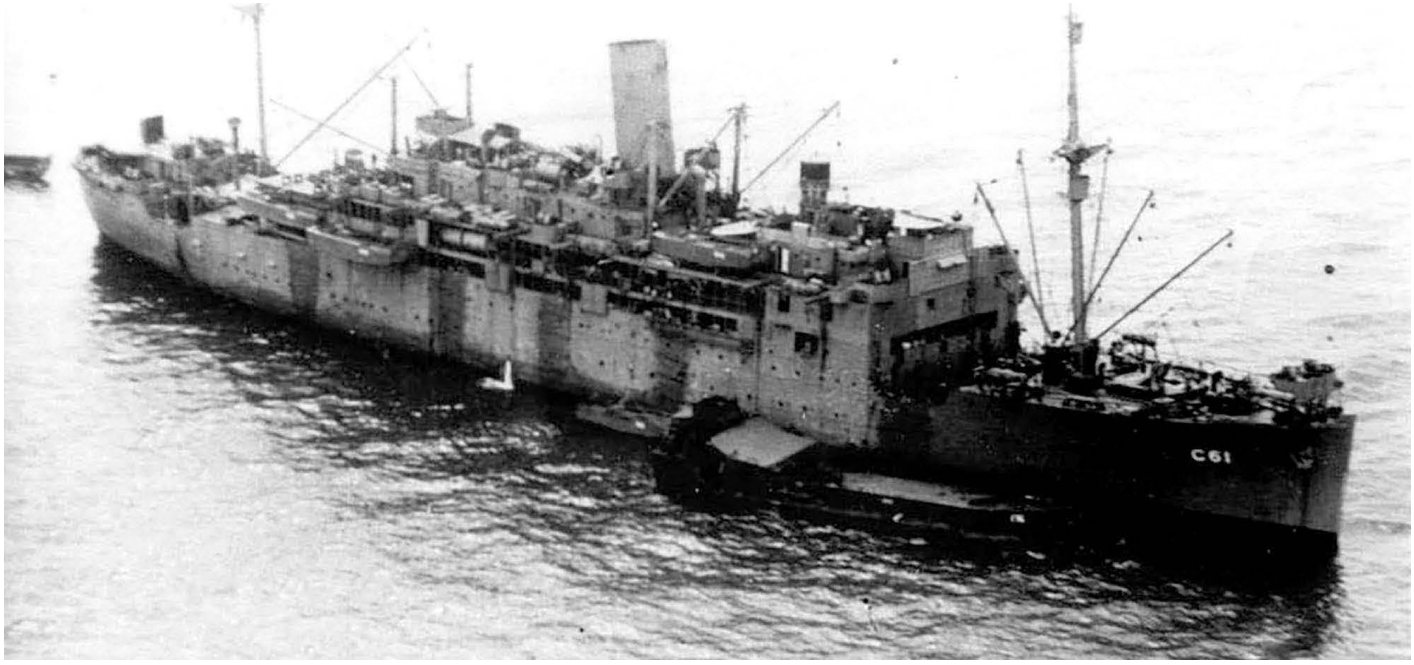
SUSTAINING AUSTRALIA'S EMERGING EXPEDITIONARY CAPABILITY: ADDING TO THE "KIT"

By George Galdorisi

Australians live in a dangerous neighbourhood, and the Australian Defence Force has never been more stressed to ensure the nation's security and prosperity. Furthermore, since Australia is a country and a continent surrounded by water, the nation's elected ministers and officials, as well as defence leaders, recognize that the ADF must continue – and even accelerate – its shift from a continental focus to one that is primarily maritime in nature.



HMAS WESTRALIA (I), Landing Ship Infantry (LSI) 1940-1946.

PERSPECTIVE

During July and August of 2018, the American television network, *The Smithsonian Channel*, featured an eight-part series called, "The Pacific War in Color." It should come as no surprise to Australians that parts of this series focused on events in and around Australia such as the February 1942 attack on Darwin which killed over 200 people, caused massive damage, and left hundreds of people homeless.

That attack might have represented a low point in the war for Australia, but the nation was quick to recover and fight back. Also featured in this Smithsonian Channel series was Australia's emergent amphibious warfare capability represented by three Landing Ships Infantry (LSI): HMAS KANIMBLA (I), HMAS MANOORA (I), and HMAS WESTRALIA (I). These were the Australian military's first amphibious warfare ships, and they took part in joint Australian and United States amphibious assaults in the South West Pacific Area.

Australia operated amphibious ships in the decades following World War II—and the Australian Defence Force has employed them in operations as diverse as East Timor, the Solomon Islands, Iraq and Afghanistan. However, it is fair to say the ADF has not been blessed with a robust amphibious and expeditionary assault force—until now. There are compelling reasons for the renaissance in this ADF capability. And given the long history of Australia and the United States working together—especially at sea—Australian defence planners are carefully watching how the U.S. Navy evolves its amphibious and expeditionary assault capability in the second decade of the 21st Century.

BACKGROUND

As readers of *The NAVY* are well-aware, Australia is an increasingly important nation in the Indo-Asia-Pacific. This nation's values and energy percolate throughout the region, creating positive diplomatic, economic and security outcomes. Given the maritime-dominated geography of this region, for many of the people who live in this part of the globe, the face of Australia is represented by the Royal Australian Navy. Indeed it is the RAN that is on the forefront

HMAS CANBERRA (L02) with T8.4 Iroquois at Point-2.

of maritime security and humanitarian actions throughout the Indo-Asia-Pacific.

This change is emphasized in the 2016 Defence White Paper as well as in the 2016 Integrated Investment Program. Reflecting Australia's maritime focus—a decided shift from Mackinder to Mahan—these documents lay out a comprehensive plan to enhance the capabilities of the Royal Australian Navy. They seek to ensure that the RAN is capable of both defending the nation, as well as protecting Australia's interests in the region and beyond.

A brief review of the building program for the RAN leaves little doubt that this is the most ambitious ramp up in Australia's naval capabilities since World War II—and one that will deliver first-class capabilities. Readers of *The NAVY* are likely knowledgeable regarding the details of this naval buildup. That said, it is worth putting all these assets in one list just to appreciate the scope of the investment the nation is making. The highlights are:

Two Canberra-class large amphibious ships

- Three Hobart-Class Air Warfare Destroyers
- P-8A Poseidon maritime surveillance and response aircraft
- High altitude MQ-4C Triton unmanned aircraft
- New future frigates optimized for anti-submarine warfare
- New offshore patrol vessels
- New submarines
- New MH-60R Seahawk naval combat helicopters
- A wide variety of air, surface, subsurface and ground unmanned systems

By any measure, this growth of naval capabilities will establish Australia's ability to ensure the security and prosperity of the nation, cement alliances in the South Pacific and East Asia and beyond, and respond to a wide range of contingencies. While it is challenging to single out one asset as most important in Australia's naval renaissance, for this American observer, it is the two *Canberra–class* amphibious ships—HMAS CANBERRA (L02) and HMAS ADELAIDE (L01) – that will have the greatest impact on the Australian Defence Force.

It is clear that this emerging amphibious capability is going to fundamentally change the way the entire ADF operates, simply because it is an especially useful capability to have for the area immediately surrounding Australia—as well as for the larger Indo-Asia-Pacific region. As this capability emerges, the ADF will continue to look to its long-term alliance with the United States to leverage lessons learned from that nation's long history of expeditionary and amphibious operations.

AUSTRALIA'S EMERGING EXPEDITIONARY AND AMPHIBIOUS CAPABILITY

Late last year, an article for the online *U.S. Naval Institute News* addressed Australia's emerging expeditionary and amphibious forces. The title of the article, "Australia's Amphibious Force Nearing Full Operational Capability," provided a good preview of what it contained. Here is how this article began:

> The Australian Defence Force (ADF) is nearing full operational capability of its amphibious force after a six-year effort to turn an Army battalion into the heart of a joint-service expeditionary capability akin to the U.S. Marine Corps.
>
> After years of planning, reorganizing and training, the commander of the ADF's Deployable Joint Force Headquarters has certified that the amphibious force is ready for operations after using this summer's Talisman Saber 2017 exercise as a final certification event.
>
> Maj. Gen. Paul McLachlan, commander of the Deployable Joint Force Headquarters and the Australian Army's 1st Division, told USNI News that this year's final certification event came on the heels of a very successful year last year and a half, which included sending the new Canberra-class large amphibious ship to its first real-world disaster relief mission, and participating in the Rim of the Pacific (RIMPAC) 2016 exercise.

While many of the new naval assets being procured for the ADF and RAN are still being built, it is apparent that Australia will soon have a substantially enhanced ability to conduct sustained, long-range, expeditionary operations. Whether these missions will involve traditional amphibious tasks such as the movement of troops and equipment ashore, or other missions carried out by expeditionary

T6 Rocketing Through Surf Zone 201710-1.

forces—from personnel evacuation, to humanitarian assistance, to disaster relief—is still evolving. What is beyond argument is the fact that Australia will have the capability and capacity to conduct a wide-range of expeditionary undertakings.

There is ample evidence of how keen Australia is to continue to develop a robust expeditionary and amphibious capability. One need look no further than Exercise Talisman Sabre 2017 to see the strides the nation is making. Last year's biennial, combined Australian and United States training event involved over 30,000 personnel, 36 warships and more than 220 aircraft. In addition to Australian and U.S. soldiers, sailors, and airmen, troops from New Zealand, Canada and Japan also participated in Talisman Sabre.

This exercise was the most complex iteration of Talisman Sabre to date, and included the largest amphibious landing conducted by Australian forces since World War II. Led by HMAS CANBERRA, the landing force of 600 troops was also supported by HMAS COULES (L100) and Royal New Zealand Navy amphibious ship HMNZS CANTERBURY (L421). Planning for Talisman Sabre 2019—as well as additional amphibious exercises—is already underway, and it is clear that the ADF and RAN intend to nurture this emerging amphibious assault and intervention capability. More recently, Australia's amphibious forces we key players in the biennial RIMPAC exercise.

LEVERAGING THE AUSTRALIAN–UNITED STATES ALLIANCE: ESPECIALLY AT SEA

The United States has global commitments that stress its Navy in much the same way that the ADF and RAN are being stressed today. Increasingly, the United States is finding that its expeditionary forces are the ones that are most useful in meeting those global commitments by preforming the same kind of missions that the ADF and RAN envision for their expeditionary forces.

U.S. naval expeditionary forces have remained relatively robust even as the size of the U.S. Navy has shrunk from 594 ships in 1987 to 272 ships in 2018. Naval expeditionary strike groups—built around large deck amphibious ships similar to Australia's Canberra-class ships—comprise a substantial percentage of the U.S. Navy's current fleet. And the blueprint for the future fleet the U.S. Navy is building, as seen in Congressional Research Service Navy Force Structure and Shipbuilding Plans, maintains—and even increases—that percentage of amphibious ships.

While the U.S. Navy and Marine Corps have embraced unmanned systems ("uninhabited systems" in Australian parlance) of all types as part of their future force structures, and a wide-range of studies looking at the makeup of the Sea Services in the future have endorsed this shift, it is the Navy-Marine Corps expeditionary forces that have been the most active in evaluating a wide variety of unmanned systems in various exercises, experiments and demonstrations.

TESTING AND EVALUATING UNMANNED SYSTEMS

Two of the most important recent events where U.S. Navy and Marine Corps warfighters saw the impact unmanned systems had on their operations were the Ship-to-Shore Maneuver Exploration and Experimentation (S2ME2) Advanced Naval Technology Exercise (ANTX), as well as Bold Alligator 2017. What made these exercises so significant was the number of new technologies introduced, as well as the scope of what was planned and accomplished. These operational experiments highlighted the potential of unmanned naval systems to be force-multipliers for expeditionary strike groups.

There are few missions that are more hazardous to the Navy-Marine Corps team than putting troops ashore in the face of a prepared enemy force. We were reminded of that during the aforementioned Smithsonian Channel series. Indeed, due to the defensive weapons a wide range of nations possess, conducting an amphibious operation against a prepared foe is more hazardous today—often vastly so—than it was in World War II. For this reason, S2ME2 ANTX and Bold Alligator 2017 focused heavily on using unmanned surface vehicles to conduct critical ISR (intelligence, surveillance and reconnaissance) and IPB (intelligence preparation of the battlefield) missions against enemy formations.

The S2ME2 ANTX demonstration focused on addressing gaps in capabilities that advanced unmanned maritime systems might close for the critical ISR and IPB missions needed before conducting the amphibious ship-to-shore mission. Thus, S2ME2 ANTX had a specific focus on unmanned systems—especially unmanned surface systems—that could provide real-time ISR and IPB of the battlespace and pass this information in real-time to those orchestrating the assault.

During the assault phase of S2ME2 ANTX, the blue force used a USV to frustrate enemy defenses. The expeditionary commander selected an eight-foot MANTAS USV (one of a family of stealthy, low profile, USVs) for this mission. The USV swam into the enemy port (the Del Mar Boat Basin on the Southern California coast),

Royal Brunei Navy Darussalam class offshore patrol vessel KDB DARUSSALAM similar to Lürssen SEA 1180 RAN OPV.

and relayed information to the amphibious force command center using its TASKER C2 system. Once this larger-scale ISR mission was complete, the MANTAS USV was driven through the surf zone to provide IPB information crucial to planners. This included obstacle location (especially mine-like objects) and beach gradient.

S2ME2 ANTX was a precursor to a major Navy-Marine Corps expeditionary exercise, Bold Alligator 2017. This live exercise was specifically designed to demonstrate maritime and amphibious force capabilities, and was focused on planning and conducting amphibious operations, as well as evaluating new technologies that can support the expeditionary force in the future.

Due to the need to sortie amphibious ships to provide disaster assistance in the wake of hurricanes Harvey, Irma and Maria, the exercise featured a smaller number of amphibious forces, but did include a carrier strike group. The 2nd Marine Expeditionary Brigade (MEB) was the command element and directed events, and was embarked in USS ARLINGTON (LPD-24), USS FORT MCHENRY (LSD-43), and USS GUNSTON HALL (LSD-44).

The 2nd MEB used a large (12-foot) MANTAS USV, equipped with a Gyro Stabilized SeaFLIR230 EO/IR Camera and a BlueView M900 Forward Looking Imaging Sonar, to provide ISR and IPB prior to the ship-to-shore amphibious assault. The sonar provided bottom imaging of the surf zone, looking for objects—especially mines—and other obstacles that could pose a hazard to the landing craft.

The early phases of Bold Alligator 2017 were dedicated to long-range reconnaissance. Operators at the exercise command center at Naval Station Norfolk drove the six-foot and 12-foot MANTAS USVs off North and South Onslow Beaches, as well as up the Intracoastal Waterway. Both USVs streamed live, high-resolution video and sonar images to the command center. The video images showed vehicles, personnel, and other objects on the beaches and in the Intracoastal Waterway. The sonar images provided surf-zone bottom analysis and located objects and obstacles that could present a hazard during the assault phase.

T12 and T6.

Bold Alligator 2017 underscored the ability of surface unmanned systems to provide real-time ISR and IPB. This allowed planners to orchestrate the amphibious assault to ensure that the landing craft passing through the surf zone didn't encounter objects that could disable—or even destroy—these assault craft. This linkage enabled decision-makers not on-scene to direct the assault with a high degree of confidence.

If my three tours in the U.S. Navy's amphibious assault force taught me anything, it is that the ship-to-shore movement of an expeditionary assault force remains the most hazardous mission for any navy. Real-time ISR and IPB will spell the difference between success and failure—and failure means the loss of life. For this reason, the Navy and Marine Corps team is accelerating its efforts to field unmanned maritime systems, and especially unmanned surface systems, to directly support our expeditionary forces. Clearly, this initiative will make the U.S. Navy's surface force even more lethal.

WHAT CAN AUSTRALIA LEARN FROM THE UNITED STATES EXPERIENCE?

The Australian Defence Force—and especially the Royal Australian Navy—have a long and rich history of providing for the security and prosperity of the nation. As part of that history and tradition, the ADF and RAN value their independence and the ability, when necessary, to go it alone. That said, they also have been good stewards of Australia's finite defense budget by leveraging work done by allied and partner nations.

Australia has benefited tremendously from the ADF and RAN's thoughtful due diligence in acquiring two first-class, major amphibious assault ships—HMAS CANBERRA and HMAS ADELAIDE. Now, as these ships complete their initial deployments and acquire valuable lessons learned, it is time to outfit them with the right "kit" to ensure that Australia's fighting men and women have a decisive edge in any operation. Leveraging what the U.S. Navy and Marine Corps have learned about the value of unmanned systems to support expeditionary and amphibious operations can be of tremendous value.

Clearly, using unmanned systems to support the ADF and RAN is something that has the support of Australia's civilian and military leaders. Defence Industry Minister Christopher Pyne spoke to the importance of unmanned systems to Australia's future defence when he noted:

> The first Defence Cooperative Research Centre will focus on Trusted Autonomous Systems to deliver game-changing unmanned platforms that ensure reliable and effective cooperation between people and machines during dynamic military operations. To be effective, Defence needs autonomous systems to be highly trusted, robust and resilient, and this initiative will bring together the best researchers from industry and universities to develop new intelligent military platforms of the future.

This is just one—of many—statements by senior ministers and officials that speaks to the promise of unmanned systems to complement Australia's capital investment in ships like the two Canberra-class Landing Helicopter Docks (LHDs). That said, many of these statements about unmanned vehicles are "aspirational"

MARTAC MANTAS USV at Sea - Launching from Navy LCU S2ME2.

regarding how they will help ADF soldiers, sailors and airmen prevail in future fights. They suggest how unmanned systems might be of value to the ADF, but are short on specifics of just what we want these unmanned systems to do.

ASPIRATIONAL UNMANNED SYSTEMS & COTS?

There is nothing "aspirational" about the challenges the RAN will face as its expeditionary forces range far and wide across the Southern Pacific and beyond. Equipping it's LHDs with unmanned surface vessels that can do ISR and IPB of landing zones will keep Australia's sailors and soldiers out of harm's way while ensuring the success of any amphibious operation. It strikes me that this rather small investment can pay tremendous dividends.

From my perspective, the ADF would be well-served to consider COTS (commercial off-the-shelf) technologies to add to the kit of these ships. Uninhabited surface systems such as the Saab Bonefish USV, the Israeli Protector USV, the U.S. Common Unmanned Surface Vessel, and the U.S. MANTAS (Tactical Autonomous Unmanned Surface Vessel) family of USVs, can be key, affordable, assets to provide Australia's expeditionary naval formations with the offensive and defensive capabilities they need to fight and win.

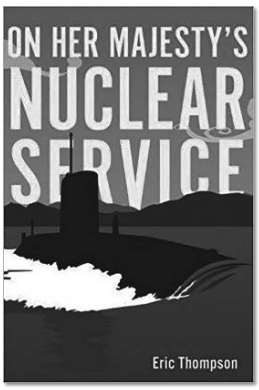
In November 2018, unmanned systems will be wrung out in the Autonomous Warrior Exercise in Jervis Bay. In addition to the Australian Defence Force, the Defence Science and Technology Group, the five-eyes Technical Cooperation Program, local universities and defence industry are working to make this a robust and significant exercise with the Royal Australian Navy one of the principal beneficiaries of what will be learned from this extensive exercise.

The Autonomous Warrior Exercise represents a unique opportunity to evaluate how unmanned vehicles can add to the "kit" of the Royal Australian Navy. Based on the many ways that U.S. Navy and Marine Corps forces successfully employed unmanned surface vessels in significant operations in 2017—and continue to do so it 2018—I suspect USVs will figure prominently in Autonomous Warrior 2018, as well as in future exercises such as Talisman Sabre 2019. ■

About the Author: Captain George Galdorisi, USN (Ret.) is a naval aviator who began his writing career in 1978 with an article in *U.S. Naval Institute Proceedings* and is a regular contributor to *The NAVY*. His Navy career included four command tours and five years as a carrier strike group chief of staff.

In addition to *The Coronado Conspiracy*, and *For Duty and Honor*: Rick Holden thrillers published by Braveship Books, he has written thirteen other books distributed by mainstream publishers, including four *New York Times* best-sellers: *Act of Valor*, the novelization of the Relativity Media film, as well as three novels in the rebooted *Tom Clancy's Op-Center* series. He is the author of *The Kissing Sailor*, which proved the identity of the principals in Alfred Eisenstaedt's famous photograph.

He is currently the Director of Strategic Assessments and Technical Futures at the Navy's C4ISR Center of Excellence in San Diego, California.



On Her Majesty's Nuclear Service

Eric Thompson

Casemate Publishers (28 February 2018)
ISBN: 9781612005713
ISBN-10: 1612005713
Hardcover: $52.50

The author takes the reader on a journey – from when Britain gave back its Empire and attempted, through English-scholastic Globalism, to retain a position on the world stage. A stage upon which the Royal Navy had operated with near-continuous distinction for three centuries. Fittingly and perhaps poignantly, the Author left the Royal Navy in 1998 just as the British Navy began its terminal decline.

Eric Thompson is an excellent story teller. He weaves anecdotes about his own misgivings, tragedies, and engineering / operational successes – including the death of his dear wife Kate to cancer – to conclude:

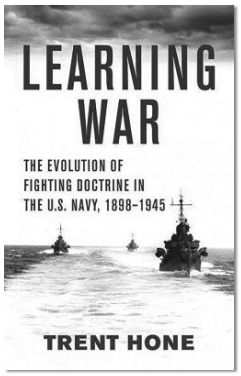
> I was from the luckiest generation ever to have walked this earth. I had served in the Royal Navy for thirty-seven years and never known war. I had lived my life in peace… For thirty-seven years I had never failed to do my duty…and death alone would part me from Kate – that too I had promised.

In those words are the Author's greatness; including fighting against the depravations of privatisation to retain HM Naval Base Clyde and winning the unions to his side against (what would become) a deeply divisive new-Labour Government. A rare achievement in the 1990s – as so much of what would befall the world in the 21st Century was inexorably put into play. The unsung and effective team-building undertaken by Eric as Commodore HMNB Clyde, contributed in some ways to the 2014 Scottish vote to stay in the UK. By that stage it was one of the few 'industries' Scotland had remaining.

Eric begins his journey through his remarkable Journal. Older readers will recall the Journal – a Naval diary, classified at times of war – that was fundamental to naval general training. As it had been in the days of Nelson. Sketches were required and the young aspirant was expected to record daily sea-going activities, and also critique and comment upon doctrine and the politics of the day. What is remarkable is the quality and gentleness of the mentoring by the Divisional Officers. One comes away with a wry smile, having been on the end of those pithy barbs – and learned to apply them oneself.

The Old Navy humour stands out; including narrating stories against himself showing others, including his female staffs, in a strong light. Eric was a champion of competent people – loved by them. He was ability conscious; gender and colour blind. Even the English liked him!

This is a rich book, telling the story of the Royal Navy across some of its great years as it fought to engineer a nuclear standing with and sometimes against U.S. intent. It is a book RAN leadership might do well to read – for it shows what may be done; and also how to avoid the pitfalls. A must buy for Christmas reading.



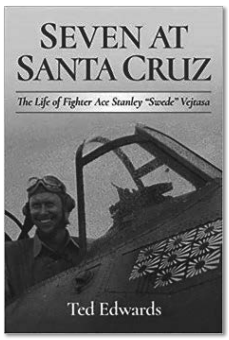
Learning War

The Evolution of Fighting Doctrine in the U.S. Navy, 1898–1945

Trent Hone

Naval Institute Press (15 June, 2018)
ISBN-10: 1682472930
ISBN-13: 9781682472934
Hardback: $45.50

Trent Hone studied religion and archaeology at Carleton College in Northfield, Minnesota, and is an authority on the U.S. Navy of the early twentieth century and a leader in the application of complexity science to organizational design. This is an important insight, since Hone is able to provide a useful critique; including on the concept of the 'decentralized doctrinal concept' that allowed for 'flexibility of command' and development of the fighting instructions that emerged in the 1920/30s. This was a pivotal period for the U.S., and the USN, during which time they thought through the strategies not simply to win on two fronts (the Pacific and the Atlantic), but also the positioning of the U.S. as a super power – on the inevitable demise of the Empire. Hone might consider that great navies have, it would appear, three generational phases: invention; doctrine; and innovation. They begin with invention – but the intellectual challenges ultimately demand control and doctrine. They then go through a period of peace-time doctrinal constraints necessary to sustain, en masse. As the control and doctrine become ever more costly, they then go through a period of innovation – making the concepts, designs and command and control more and more efficient; though not necessarily effective or good for war-winning. The U.S. may be seen to have gone through the first two phases after World War 1; noting that when WW2 'came [along], multiple parallel experiments would be performed in combat'. This enabled experimentation, learning, and leading – at the price of victory, as opposed to defeat! Nevertheless, Hone recognises that in the 1920s and 1930s an 'insurgent spirit [was enabled, that led] transformation, established the constraints of the learning system, and fostered victory in World War 2'. The book to come may be even more illuminating? Network Centric Warfare in the late 1990s was supposed to foster an 'insurgent spirit', but the constraints after 9/11 quickly limited thinking and learning through doctrine. It is as if the West lost a thinking generation and can only now – well after time – return from doctrine and innovation, to invention. We may be out of time – to learn again! Hone's next book, 1946-2013 will be all the more interesting. A good read – even if sometimes a technical journey into complexity science!



Seven at Santa Cruz

The Life of Fighter Ace Stanley "Swede" Vejtasa

Ted Edwards

Naval Institute Press (10 Jun, 2018)
ISBN-10: 1682472876
ISBN-13: 9781682472873
Hardback: $40.00

This is perhaps a back-to-front book. That is not to say the front is not interesting, but it is the back-end that truly adds value as one sees how a highly competent, decorated war-leader deals, as a Captain USN – sometimes successfully, sometimes less so – with a peace time Navy; increasingly thinking like one. It is this story that we need perhaps to recapture as Navies think through how they are going to re-crew and bootstrap the Millennials (b. 1990-2004) into positions of command. Just at a time Western Navies commence the rebuild and fight-back. It is the skills and leadership of men like Swede Vejtasa that win wars and secure the peace. Navies need to keep such folk alive in peace time navies, if they are to 'think, fight and win' at war: si vis pacem, para bellum.

Churchill is quoted as saying 'decorations shine like stars but cast long shadows'. The shadows he refers to are the envy that goes on, particularly been petty-senior and greater-junior officers. It is less easy to see today, with so many medal ribbons being worn even by even our youngest sailors – after 18 years 'on-OPs'. However the 'real' decorations still shine like stars…As is the case with the lack of Navy VCs and the Royal Australian Navy Helicopter Flight, Vietnam. For the lack of witness, at least one VC would have been won by this most decorated of Navy units, see Flash Traffic. Swede won three Navy Crosses. His third at Santa Cruz should, by all accounts, have been a 'Medal of Honor'. But in addition to downing 'seven-plus-one (attributed)' enemy aircraft and 'bringing home his abandoned strike group and preserving all those planes' the decoration would have revealed the failures in leadership at Santa Cruz of Rear Admiral Thomas C. Kincaid USN and, to an extent, Vice Admiral William Frederick Halsey Jr USN. Neither of whom were carrier aviation experts. The 'Goose Chase third Silver Star', the author concludes, 'should have been in addition to the Medal of Honor – [with] a large asterisk, signifying that by every right this one ought to have been the Medal of Honor'.

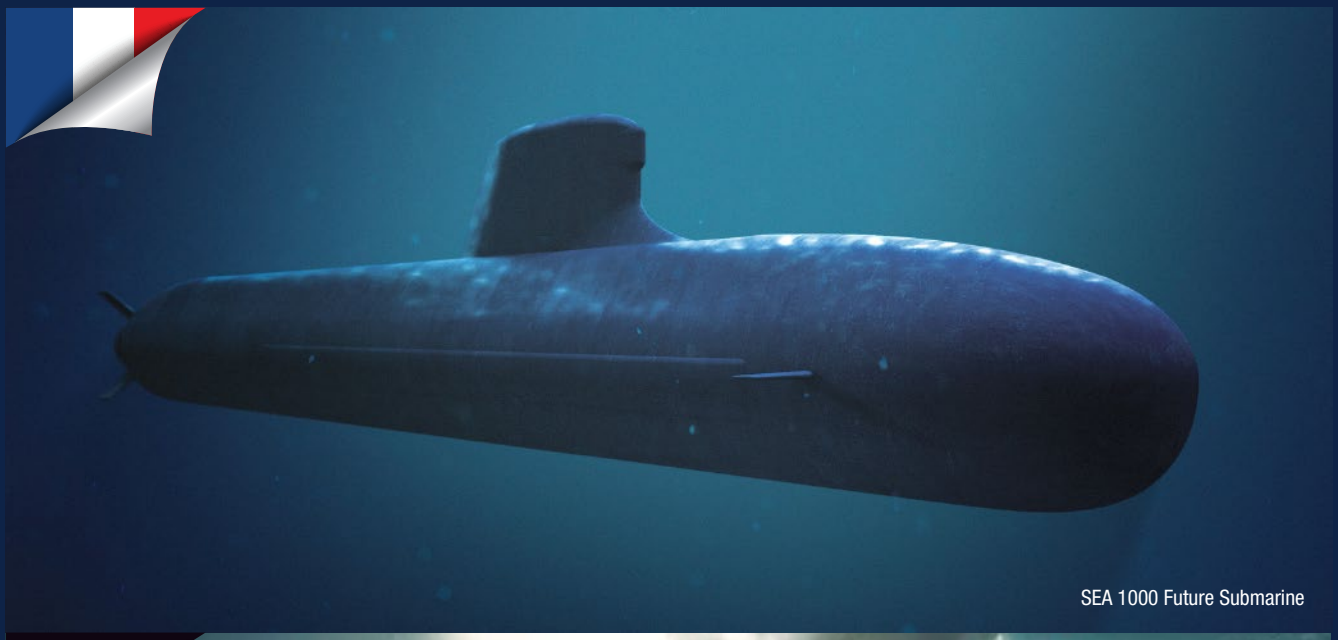
This is a good read – it gets going late but is an important reminder of the need to keep such men joining our navies in peacetime, and retaining them so they can 'think, fight, lead and win at war'. Perhaps, now that Chief of Navy's motto is 'think, fight, win' – this is the next step? A good read – worth adding to the summer list.

HATCH: PHM ATLÂNTICO (A140) ex HMS OCEAN (L12), Brazilian Navy's new flagship sails into Rio.

MATCH: USS CHARLESTON (LCS-18) Accepted by U.S. Navy from Austal Shipyards, 31 Aug 2018.

DESPATCH: USS McCLUSKY (FFG 41) the decommissioned frigate was sunk in waters 15000 feet deep 55 nautical miles north of Kauai Hawaii July 19 during RIMPAC 2018.

Australia's New Broom



SEA 1000 Future Submarine

SEA 1180 New OPV (Future Corvette)

SEA 5000 Future Frigate