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**RAN TRANSFORMING – SLOWLY**

When one has read the HATCH, MATCH & DISPATCH and FLASH TRAFFIC sections in this magazine over the last few years one would see that the RAN is a navy in transformational upheaval. New surface combatants, submarines, patrol boats as well as extensive upgrades of existing frigates and submarines. And then there is the decommissionings to make way for the new equipment. We have seen submarines, destroyers, patrol boats and now our first Adelaide class FFG decommissioned. The RAN is changing its complexion and in turn its capability, at a time when recruiting and retention are now capability issues.

But when one looks critically at the RAN’s equipment transformation into the force of the future the question must be asked is it happening in time with the future? Much of the major capital equipment being brought into service today had its origins during the Cold War, namely the 1980’s. It was Paul Dibb’s Defence Review in 1986, which turned into the 1987 Defence White Paper, that called for the building of the Anzac class ships. It also set down the limited capability they were to have to fulfil “Tier 2” patrol boat style duties in Australia’s ‘Top End’.

When one looks at the Anzacs today, nearly 20 years since Dibb’s review, not much has changed in their capabilities (in fact the last one is yet to be commissioned). They are still ships that have “weight and space for” but “not fitted with”. This is rather remarkable given they have been sent into harms way, and continue to be, well outside Dibb’s planned area of operations. During the most recent Iraq war HMAS ANZAC was the first RAN ship to fire in anger since the Vietnam War. However, despite the limited threat ANZAC was at the limits of her capability and thankfully part of a wider coalition consisting of more modern warships capable of protecting her.

While extensive and capable upgrades have been announced for the Anzacs (see FLASH TRAFFIC this issue) there is a danger they could be too late. The unpredictability of modern conflict and the explosion in maritime capabilities around the world, particularly in our region, mean that our ‘Falklands War’ could be around the corner. With tensions in the Persian Gulf over Iran’s nuclear ambitions and rumoured sponsorship of insurgent activities in Iraq, would it not be prudent to temporary retrofit a Mk-15 Phalanx to our Anzacs that are regularly deployed there (HMAS PARRAMATTA is there now)? The precedence for Navy applying this sort of added defensive measure at short notice was set when the FFG HMAS SYDNEY and the DDG HMAS BRISBANE were sent to Operation Desert Storm. Both ships received new equipment under a rapid acquisition programme. BRISBANE got two Phalanx anti-missile close in weapon systems.

For Persian Gulf deployments our ships do get some added capability in the form of a temporary ‘Link 16’ capability in order to ‘digitally talk’ to US and British units. However this does not make up for the Anzac’s one channel of fire in an anti-aircraft or anti-ship missile defence situation.

Rapid acquisition for Australian Army units going into ‘trouble spots’ is happening with the recently announced multi-million dollar defensive upgrade for the Army’s Chinook helicopters. So why not the Anzacs? New Zealand has fitted Phalanx to their Anzacs so there is an engineering blue print from which to proceed.

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By Themistocles
SEA 1390 —

The FFG Upgrade Programme

Just as one of the RAN’s FFGs, HMAS CANBERRA, is decommissioned, the first of the upgraded FFGs, HMAS SYDNEY, is nearing delivery. While the first two FFG’s miss out on the upgrade due to being decommissioned early, the capabilities being built into the remaining ships provide a qualitative edge that can make up for the lack of two non-upgraded ships.

Thanks to a reshaped project organisation, new management team and sharper project management focus, the FFG Upgrade Programme has hit the mark with the lead ship, HMAS SYDNEY, set to emerge from her successful sea trials as the world’s most capable Oliver Hazard Perry class FFG.

SYDNEY stepped out of Sydney Harbour in October for her first post upgrade sea trials. With ADI Limited having finished their hull double plate repairs ahead of schedule and a program of habitus training and basin trials completed, just a short period of basic seamanship training stand between them and their introduction into an enhanced FFG into RAN service.

It has been a remarkable turnaround for a project that has been heavily criticised for its delays and labelled by its detractors as overly ambitious.

While it’s true that the delays were regrettable, Vice President Naval Australia and ADI Director Naval, Ali Baghaei is quick to point to the recent successful results.

“I think it’s important to remember that this is the most sophisticated naval systems integration task ever undertaken in Australia and ADI is determined to make this work and see it through,” he said.

“Testing something that complex is also not easy yet, despite the potential for complications, the trials program has been undertaken in Australia. Legacy systems such as the SM-1 Standard missile, the 76mm gun and the Mk-15 Block 1 Phalanx have been integrated into the combat system upgrade.

The lead ship, HMAS SYDNEY, is set to emerge from her lead ship hull, the first time the ship has been strengthened to accommodate the displacement increase from 4100 to 4200 tons and new fire pumps have also been installed.

The tactical 8-cell Mk-41 missile vertical launching system has been strengthened to accommodate the displacement increase from 4100 to 4200 tons and new fire pumps have also been installed.

The Mk-92 search and fire control radar has been upgraded from the existing Mk-92 configuration, increasing the radar receiver’s sensitivity to enable detection of very low radar cross-section targets. Like the SPS-49, it has been upgraded to Mod 12 configuration, optimising the radar receiver’s sensitivity to enable detection of very low radar cross-section targets.

The upgraded FFG HMAS SYDNEY on sea trials. The upgrade is giving the FFG’s destructor capabilities and allowing them to operate effectively in the large strategic environment in our region (Solomon Islands).
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Thanks to a reshaped project organisation, new management team and shaper project management tools, the FFG Upgrade project (SEA 1390) has turned the corner with the lead ship, HMAS SYDNEY, set to emerge from her successful sea trials as the world's most capable Oliver Hazard Perry class FFG.

SYDNEY slept out of Sydney head in October for her first post upgrade sea trials. With ADI Limited having finished their hull double plate repairs ahead of schedule, and a round of harbour training and basin trials completed, just a short period of basic seaworthiness training stand between them and their introduction of an enhanced FFG into RAN service.

It has been a remarkable turnaround for a project that has been heavily criticised for its delays and labelled by its detractors as overly ambitious. While many thought that the delays were inevitable. Vice President Naval Australia and ADI Director Naval, Ali Baghaei is quick to point to the recent successful results:

"It's important to remember that this is the most sophisticated naval systems integration task ever undertaken in Australia and ADI is determined to make this work and meet through.

"The upgrade system will be delivered in stages, with the AN/SPS-49 air search radars – the SPS-49 and the Mk.13 Black 1 Phalanx have been integrated into the combat system upgrade.

The SPS-49 upgrade, the Mod 12 configuration, increases the radar receiver's sensitivity to enable detection of very low radar cross-section targets. Like ESSM, SM-1 or the 76mm gun giving the FFGs a second fire control channel that many inaccurately criticise them for not having.

Data from these two radars and the existing surface search SPS-55 radar, are combined in a high performance radar data fusion system to automatically provide a coherent system to automatically provide a coherent air picture to enable tracking of highly manoeuvring targets. The AN/SPS-49 radar has been upgraded to the A(V)1 Mod 12 configuration, adding a high performance automatic detection capability against small and fast targets. It uses modern waveforms and signal processing techniques to maximise target detection performance against stealthy targets. It uses modern waveforms and signal processing techniques to maximise detection performance against stealthy targets.

The AN/SPS-49 radar is the most sophisticated radar system integration task ever undertaken in Australia. Legacy systems such as the SM-1 Standard missile, the 76mm gun and the Mk-13 Block 1 Phalanx have been integrated into the combat system upgrade.

"The ultimate judges are the operators, and our feedback from HMAS SYDNEY’s crew about their new capabilities has been overwhelmingly positive, he said.

"The enhanced combat system has been replaced by the Israeli C-Pearl ESM system. This modern high performance system has improved sensitivity and accuracy, providing the ship with enhanced identification and response capability. The C-Pearl is designed for the automatic detection and identification of radar threats in complex electromagnetic environments and is capable of identifying a range of signal types that include ship, frequency-agile signals and stagger-jitter pulse repetition intervals. It evaluates signal parameters, and carries out data processing and extraction. The C-Pearl subsystems are a platform configured antenna assembly (mounted on top of the FFGs main mast) and a receive/processor console in the operations room. Of these, the baseline antenna assembly is a fundamental element that contains Instantaneous Frequency Measurement (IFM) and Instantaneous Direction-Finding (IDF).

The upgraded FFG HMAS SYDNEY on sea trials. The upgrade is giving the FFGs deterrent capabilities and reaching them to operate effectively in the large strategic environment in our region (RAN).
vulnerable to a centralised single point of failure with a
distributed architecture using a local area network.
The result has been increased command and control system
performance, including greater target track information storage
and more effective fusion of different sensor data. The more
reliable architecture is delivering greater system availability and
a development pathway throughout the ship’s life.
Link 16 has also been added to the current Link 11
capability, enabling data sharing with other navies as well as
other Link 16-capable ships and aircraft.

UPGRADED FIRE CONTROL

The gun and missile fire control system has been upgraded
to improve reaction time and tracking accuracy – particularly
against high speed targets operating in high clutter
environments. The existing SPG-60 (or STIR) and Mk-92 fire
control radars give the class two channels of fire.

The Evolved Sea Sparrow Missile (ESSM) has also been
integrated to provide the ship with a high performance ASMD
(Anti-Ship Missile Defence) capability and a second anti-
aircraft layer.

The Mk-92 Continuous Wave Illuminator (CWI) has been
replaced with a low-noise solid state version capable of guiding
ESSM and, in future, the SM-2 missile. Changing from a
single centralised microwave source to a distributed system
will improve illuminator reliability and reduce maintenance.

UNDERWATER SYSTEMS

By replacing her underway warfare systems, SYDNEY
has gained new capabilities in mine avoidance and torpedo
detection.

A modernised version of Thales Underwater Systems’
Sphentor sonar – used successfully in the ANZAC class
frigates – has been installed in place of the original Raytheon
SQR-56 hull mounted sonar.

Mine detection has been significantly improved by the
addition of Thales Underwater Systems’ dedicated high
frequency mine detecting sonar, the Petrel, which was
developed with the RAN. The Petrel’s sea floor imaging
capability will assist the ship when transitioning poorly charted
regions.

A dedicated towed array and passive processing of the hull
mounted array has also improved SYDNEY’s passive torpedo
detection. Additional aft facing morat tubes for launching off-
board acoustic decoys have been installed, along with a
reaction module that takes torpedo detection data and provides
the commander with manoeuvre and decoy deployment
recommendations.

The existing surface launched torpedo system and torpedoes
have been retained, but will be replaced as part of a separate project.

THE WAY FORWARD

With the first ship’s equipment installed and functioning and
trials progressing well, ADI Limited is looking forward to
its delivery to the RAN in 2006. Ali Baghaei, is confident of success.

“With the continuing proactive support of the entire
project team, the Project Authority and HMAS SYDNEY’s
ship’s company, our target for completion of ship trials and
hand back of HMAS SYDNEY by end April 2006 remains on
track,” he said.

MELBOURNE commenced her ‘upgrade availability’
period in November 2005, with ADI staff working with the
ship company and project office to prepare for her upgrade
program.

MELBOURNE is expected to enter Captain Cook dock in
Sydney during early 2006.

Installation of the replacement SM-2 missile to fire from
the existing Mk-13 launcher is still in the planning stages.
The new anti-aircraft missile will be integrated into the Mk-13
magazine alongside the Harpoon anti-ship missile.
Raytheon is confident that the SM-2 can be reconfigured from the VLS
launch mode to a single arm rail launch mode. This capability is
expected to be in the remaining FFGs by 2009 given the
lack of SM-1 missiles and their continuing supportability into
the future.

Navy League 2005 AGM

During its 2005 AGM in Canberra held on 14-15 October
the Navy League of Australia (NLA) expressed deep concern
about the serious manning problems facing the Royal
Australian Navy. The Federal Council of the NLA said that
the problem stemmed from a potential failure in recruiting. In a
statement issued to the media the NLA said “The Council
urges Defence to adopt a vigorous, innovative approach to
recruiting. Much more needs to be done by way of Public
Relations and advertising to raise the profile of the Navy.”

“The Council claims no expertise in marketing. However,
given the operational tempo of today’s Navy and the many
activities of Navy that are highly ‘tele-visual’, it ought to be
possible to develop an extremely effective Public Relations
campaign.”

“The RAN also needs to be doing more to engage the
community directly, such as through open days, exhibitions
and demonstrations of naval activities.

“The Council believes that, although there are variations
between each State, there is also a need to raise the profile of the
Australian Navy Cadet movement as a youth training scheme
within the community.”

“The Council also expressed concern about the retention
problem facing the RAN but noted the SEACHANGE
programme, designed to make service in the Navy more
attractive for modern lifestyles and less stressful and
demanding, was having an effect.

Council was pleased to note:

• the success of the new Armidale patrol boat project;
• the operational effectiveness of our submarine force;
• the success of the Anzac frigate programme;
• the progress being made with the project to acquire three
air warfare destroyers; and
• the progress being made to acquire two amphibious ships.
Finally, the Council called on the Government to respond
to the Report by the Joint Parliamentary Committee on
Foreign Affairs, Defence and Trade on Maritime Strategy. This
report was delivered in June 2004. To date there has been no
response from Government.

Special Guest for the AGM lunch held on the Saturday was
Rear Admiral Max Hancock, Deputy Chief of Navy.

THE NAVY LEAGUE PERPETUAL TROPHY – COMMUNITY AWARD

In 1980 the Navy League decided that the extensive service
the Royal Australian Navy renders to civilian communities should be
recognised. After discussion with Navy, it was agreed recognition
would take the form of a perpetual shield. The shield would be called
the Navy League Perpetual Trophy -Community Award. It would be presented annually to the ship
or establishment considered to be most worthy of recognition for
assistance given to the community in the year ending 30th
June.

Service to the community is not restricted to Australia or
Australians but may be provided to civilians in any part of the
world.

Each year nominations are received from Naval
Command. From these nominations the Chief of Navy
selects the names of three ships or establishments to submit to
the Federal Council of the Navy League. Federal Council
then makes the final selection of the winner.
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THE TRAFALGAR ESSAY CONTEST

When the League was considering how the 200th anniversary of the BATTLE OF TRAFALGAR might be commemorated one of the ideas put forward was an essay contest for Australian Navy Cadets. This idea was readily agreed to by the Navy League's Executive during 2004 planning. The League was assisted greatly in this decision with the support offered by Mr. John Strang. It was decided that the League would offer a prize of $1,000 to the winning Cadet and $1,000 to the winning Cadet's unit.

The essay contest required cadets to submit entries of not less than 2,000 words or more than 3,000 words. The essay could be on any theme relevant to the BATTLE OF TRAFALGAR or its outcome and consequences for Australia. Information about the essay contest was widely circulated. Every cadet unit was notified. The League had the active assistance of the National Commander Australian Navy Cadets and the cadet organisation. The result was that entries were submitted from all around Australia. South Australia sent the most entries. Only Tasmania seemed to miss out.

The entries came in three categories. Some were straight descriptions of the battle. Some discussed the battle and offered their views both on the battle and upon its consequences. Then there were what might be described as fictional accounts of crew members during the battle. This last category included some very entertaining efforts. There was one entry that did not fit any category. It was an essay which discussed Bligh and compared his man management and his relationship with his officers and sailors to that of Nelson.

The decision as to who should be the winner of the essay prize was not easy. There were several likely candidates. For a number of days any one of three or four could have been declared winner.

Ultimately the choice ended up being unanimous. Able Seaman Morgan Mitchell of T.S. ADELAIDE was the winner. The decision of the Minster for Defence and Minister for Veterans' Affairs to announce the winner of the essay contest was announced on Trafalgar Day by a signal from the Chief of Navy.

It was considered that AB Mitchell had submitted a work which best met the aims of the contest. He had clearly done his research. He set out the events leading up to the battle and describes the battle itself and comments on its outcome and the consequences for Australia. Importantly AB Mitchell offended, in his own words, his views on these events. This includes some critical comment on Nelson!

A number of the essays deserve mention. AB James Osmond of T.S. HAVOC, ABR. Alan Myall of T.S. MOUNT BATHURST and AB Mark White of T.S. LIDcombe all had received the Geoffrey Evans Cup. The last category included an essay which discussed Bligh and compared his man management and his relationship with his officers and sailors to that of Nelson.

Other entries were submitted from all around Australia. South Australia sent the most entries. Only Tasmania seemed to miss out.

THE ENGLISH OAK PLANTING AT CANBERRA

On 21 October 2005 on the banks of Canberra’s Lake Burley Griffin an English Oak tree was planted and a plaque dedicated to commemorate the 200th anniversary of Lord Nelson’s victory at Trafalgar.

Mr Bill Owen, skipper of the winning yacht Hick Up, received the Geoffrey Evans Cup from Capt. Bob Richards, Commanding Officer of HMAS CERBERUS, and Jeff Gray, Commodore of the Yacht Club.

This is the second straight win for Bill Owen, who is now aiming to do a Makybe Diva in 2006. Capt. Richd. wanted that there may be some competition from CERBERUS next year.

On 21 October 2005 at Trafalgar, Admiral Harry Adams, President of the Navy League, delivered his speech to the assembled crowd.

The plaque unveiled during the English Oak tree planting to commemorate the 200th anniversary of the victory at Trafalgar.

THE GEOFFREY EVANS CUP

In other NLA news, the 25th anniversary of the Victorian Navy League Yacht Race, for the Geoffrey Evans Cup, was run on Wednesday November 2nd 2005 at the Royal Yacht Club of Victoria in Williamstown.

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The Hon. De-Anne Kelly, Minister Assisting the Minister for Defence and Minister for Veterans’ Affairs, turns the soil at the Trafalgar 200th anniversary English Oak tree planting on the shores of Canberra’s Lake Burley Griffin.

Approximately 40 people attended the ceremony with CDRE Harry Adams acting as Master of Ceremonies. The crowd heard from the Federal President of the League Mr. Graham Harris and from guest of honour, The Minister for Defence and Minister for Veteran’s Affairs The Hon. De-Anne Kelly. During her speech the Minister also read out a special note from the Prime Minister, The Hon. John Howard, about the importance of Trafalgar to the fledging colony of Australia.

Other guests included the Spanish Deputy Ambassador Jose Alzina, Deputy Chief of Navy Rear Admiral Max Hancock, Commandant of the Australian Defence Force Academy (ADFA) Commodore James Goldrick, Mr John Strang and noted Naval Historian Dr John Reeve from ADFA.
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The TRAFALGAR ESSAY CONTEST

The idea to plant a tree was devised during the Navy League’s 2004 AGM in Canberra when planning commenced to commemorate the 200th anniversary of Lord Nelson’s victory at Trafalgar.

Federal Vice-President CDRE Harry Adams took on the task and liaised with the Australian Capital Territory’s ‘National Capital Authority’ to plant the tree. The dedication ceremony coincided with the 200th anniversary of the BATTLE OF TRAFALGAR and took place at 11.00am on Friday 21 October 2005 in Commonwealth Park on the shores of Lake Burley Griffin.

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Trafalgar Fleet Review

In October of 2005 the Royal Navy organised a Fleet Review to mark the 200th anniversary of the British victory at Trafalgar by Lord Nelson over the French and Spanish. The review was conducted by Her Majesty Queen Elizabeth II aboard the Falklands ice patrol ship ENDURANCE at Portsmouth UK. Representing Australia was the Anzac class frigate HMAS ANZAC. The following is a pictorial essay of the event captured by Mr John Mortimer, Mr Chris Satler and a number of RN photographers.

The Danish support ship ESBERN SNARE. The ship is rather unique being capable of acting as a command platform, troop transport, logistic support ship, hospital ship and minelayer. While likely to be optimised for self-defence, there is the flexibility to adopt an offensive role if required. She carries a Mk-45 127mm gun and can also embark 32 ESSM (Evolved Sea Sparrow Missiles). (John Mortimer)

The South Korean KDX-2 destroyer CHUNMU GONG YI SUN-SHIN. (John Mortimer)

Three carriers in The Solent, for L to R, HMS ILLUSTRIOUS, USS SAPIAN and the French nuclear powered aircraft carrier CHARLES DE GUALLE. (RN)

The French nuclear powered aircraft carrier CHARLES DE GUALLE. (John Mortimer)

The RN Type 22 Batch 3 class frigate HMS CUMBERLAND entering Portsmouth. Although the Type 22 Batch 3 is an older class of ship than the Type 23 (some of which have been decommissioned and sold and the 22 Batch 3s were not very good command and control facilities making them more valuable. (John Mortimer)

The Oman corvette AL MUAZZAR entering Portsmouth. This little ship employs an impressive weapons fit with eight MM-40 Block II Exocet, a Crotale anti-aircraft missile launcher, a 76mm OTO Melara Super Rapid gun and numerous electronic systems to effectively employ these weapons. (John Mortimer)

RN Lynx Helicopters fly over the ships assembled for the 200th Anniversary Fleet Review to commemorate the British victory by Lord Nelson at Trafalgar. (RN)

The Spanish aircraft carrier PRÍNCIPE DE ASTURIAS at anchor off Portsmouth for the Fleet Review. (John Mortimer)

The British LHD HMAS OCEAN with a Westland built AH-64 Apache attack helicopter on the deck. (John Mortimer)

A line of ships proceed to the Fleet Review in the shadow of the liner QE2. (John Mortimer)

HMS RICHMOND, a RN Type 23 class AEW frigate, proceeding into The Solent to participate in the Fleet Review. (John Mortimer)

The British LHD HMAS OCEAN with a Westland built AH-64 Apache attack helicopter on the deck. (John Mortimer)

The Russian Udskab class destroyer ADмирал Левченко (Chris Satter)

The Danish support ship ESBERN SNARE. The ship is rather unique being capable of acting as a command platform, troop transport, logistic support ship, hospital ship and minelayer. While likely to be optimised for self-defence, there is the flexibility to adopt an offensive role if required. She carries a Mk-45 127mm gun and can also embark 32 ESSM (Evolved Sea Sparrow Missiles). (John Mortimer)

The South Korean KDX-2 destroyer CHUNMU GONG YI SUN-SHIN. (John Mortimer)

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Trafalgar Fleet Review

In October of 2005 the Royal Navy organised a Fleet Review to mark the 200th anniversary of the British victory at Trafalgar by Lord Nelson over the French and Spanish. The review was conducted by Her Majesty Queen Elizabeth II aboard the Falklands ice patrol ship ENDURANCE at Portsmouth UK. Representing Australia was the Anzac class frigate HMAS ANZAC. The following is a pictorial essay of the event captured by Mr John Mortimer, Mr Chris Satler and a number of RN photographers.

The Danish support ship ESBERN SNARE. The ship is rather unique being capable of acting as a command platform, troop transport, logistic support ship, hospital ship and minelayer. While likely to be optimised for self-defence, there is the flexibility to adopt an offensive role if required. She carries a Mk-45 127mm gun and can also embark 32 ESSM (Evolved Sea Sparrow Missiles). (John Mortimer)

The South Korean KDX-2 destroyer CHUNMUGONG YI SUN-SHIN. (John Mortimer)

Three carriers in The Solent, for L to R, HMS ILLUSTRIOUS, USS SIAPAN and the French nuclear powered aircraft carrier CHARLES DE GUALLE. (RN)

The French nuclear powered aircraft carrier CHARLES DE GUALLE. (John Mortimer)

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The Italian improved Sauro class diesel electric submarine. The Italian Navy has four of these subs. (John Mortimer)

The Russian Ukamsky class destroyer (Project 1155) ADAMIR LEVCHINSKO (Chris Satler)

The South Korean KDX-2 Destroyer CHUNMUGONG YI SUN SHIN (John Mortimer)

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MEKO Family Reunion

The following images of four MEKO 200 class frigates are a useful indication to the type and amount of weaponry this versatile class of ship can employ. All four were participants in the 200th anniversary Fleet Review organised by the RN during October 2005. Of the four MEKOS, ANZAC seems to be the least armed. However, her electronics (radars, electronic countermeasures, combat system etc) are far superior to the others.
The RN carrier HMS ILLUSTRIOUS entering Portsmouth. (John Mortimer)

HMAS ANZAC entering Portsmouth Harbour ahead of the 200th anniversary Fleet Review to commemorate Lord Nelson’s victory at Trafalgar (John Mortimer)

The Greek MEKO 200 Mk 3 frigate known as the Hydra class. It has a similar weapons fit to ANZAC except for the two Mk-15 Phalanx close in weapon systems facing fore and aft. Her electronics though are quite different. (John Mortimer)

The Portuguese MEKO 200 class ship ALV ARES CABRAL. Her armament fit is different to ANZAC’s. Namely, she has a French 100mm gun forward, Octuple Sea Sparrow launcher behind the funnels and a Mk-15 Phalanx. (John Mortimer)

The Turkish MEKO 200TN class frigate ORUCREIS. The main weaponry difference to ANZAC is the three Sea Zenith quad 25mm mounts for anti-ship missile defence and the Octuple Sea Sparrow launcher behind the funnel. (John Mortimer)

The French Cassard (F-70 (A/A) class destroyer JEAN BART anchored in The Solent. (John Mortimer)

The Spanish F-100 class air defence frigate BLAS DE LEZO. This ship may be the design finally chosen by the RAN for its SEA 4000 air warfare destroyer project. Lead designer Gibbs and Cox are currently assessing their ‘Baby Burke’ international frigate design against the Spanish F-100 to see which would best suite Australia’s needs. (John Mortimer)

The German air defence frigate BRANDENBURG of the Type 123 class. The Type 123 was one of the contenders for Australia’s SEA 4000 air warfare destroyer project, but with a US SPY-1 and ARAS systems in place of the SMART-L and APAR system used on the German ship. (John Mortimer)

The Pakistani frigate TIPPU SULTAN (ex-HMS AVENGER). Pakistan took the remaining six Type 21 Amazon class frigates from the RN in the early 1990s. The Exocet and Sea Cat launchers were removed with three of the class receiving the Mk-141 quadruple canister launched Harpoon missile and the other three (such as this one) receiving the Chinese LY 60N anti-aircraft missile launcher. (John Mortimer)

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The Japanese Maritime Self Defence Force destroyer MURASAME. (John Mortimer)

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New torpedoes and combat system for Collins

Australia's Collins-class submarines are undergoing a major capability boost with work about to start fitting out the first submarine with a new tactical combat system and upgraded state-of-the-art Mk-48 Mod 7 heavyweight torpedoes.

Defence Minister Robert Hill said the design and installation of the Replacement Combat System and heavyweight torpedo system are on schedule and on cost.

The $857 million capability investment will significantly boost the combat effectiveness of the Collins class making them the most capable diesel-electric submarines in the world today.

The first combat system has been delivered and is currently undergoing integration with Australian components and sensors at HMAS STIRLING in Western Australia. When complete the systems will be put through a rigorous exercise programme before going to sea in the first submarine.

"The first submarine to be fitted out with new systems will be HMAS WALLER which is currently in drydock at Adelaide's ASC facility," Senator Hill said.

HMAS WALLER will be ready to start sea trials with the new capabilities in early 2007 after being fitted out with the new systems during the next 12 months.

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The combat system and the new heavyweight torpedoes will be installed in all Australian submarines by 2010, resulting in a major capability boost to the Collins fleet.

The Australian Navy is working together with the United States Navy on the development of the new heavyweight torpedoes program. The first test firings of the new weapon in Australian waters occurred in September during a joint exercise involving a US Navy Submarine and an Australian Collins class submarine off the Western Australia coast.

The test firing was a significant milestone in the joint development programme between the two Navies.

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crew have met the stringent safety requirements for handling, maintaining and operating the system. HMS VANGUARD will now take over duty on operational deployment.

The Royal Navy submarines have successfully maintained continuous at sea deterrence for the past 37 years. During this on-going period the strategic deterrent is maintained by other submarines of the United Kingdom’s Nuclear Deterrent Force. This was the 8th occasion on which a Royal Navy submarine has test-fired a Trident II D5 missile, and the first for a Trident boat on completion of a long overhaul period. The firing marked the final stage of the re-qualification of the submarine crew, and provides reliability and accuracy data, which confirmed the effectiveness of the strategic, weapon system. The firing also demonstrated the absolute reliability of the United Kingdom’s Nuclear Deterrent. HMS VANGUARD was commissioned on 14 August 1993.

**SPY-1F tested**

Lockheed Martin and shipbuilder Navantia successfully performed initial at-sea testing of the first Aegis Weapon System equipped with the new SPY-1F radar aboard the Norwegian frigate FRIDTODT NANSEN (F-310) during sea trials conducted off the coast of Ferrol, Spain. This marks an important milestone in Integrated Weapon System (IWS) testing for the first of Norway’s five new Aegis-equipped frigates.

“At-sea testing of the IWS with the multi-functionality of the SPY-1F clearly represents a significant accomplishment for the Norwegian Navy’s frigate program and is a great example of successful international teamwork and industry partnership,” said Orlando Carvalho, Vice President and General Manager at Lockheed Martin Maritime Systems & Sensors’ Surface Systems line of business. “The flexibility of Aegis and the cooperation afforded through critical partnerships enable us to continue delivering a world-class system on schedule and on budget to multiple naval customers.”

The SPY-1F is a modified version of the AN/SPY-1D radar system designed to provide high performance surveillance, detection and tracking, and operate with the Evolved Sea Sparrow Missile and Standard Missile-2. Lockheed Martin is responsible for system integration of all IWS elements – including sensors, communications and weapons – for the Fridtjof Nansen class frigates.

“FRIDTODT NANSEN is performing exceptionally well and sea trials will guarantee that the ship exceed the requirements,” said Ángel Recaman, Director of Navantia’s Fene-Ferrol shipyard.

**Horizon class destroyer ANDREA DORIA launched**

On 14 October, a little more than three years from the cut of the first steel, the Italian destructor ANDREA DORIA slid down the ways from the Liguria Yard on the Trigoso River. Her delivery is scheduled for the beginning of 2008. ANDREA DORIA is the first of two units of the Horizon-class ordered from Fincantieri for the Italian Navy; with the contract signed in October 2000. Construction of the second ship, CAIO DUILIO, began in September of 2003. She should enter service in 2008.

ANDREA DORIA and CAIO DUILIO will replace the recently decommissioned ARDITO and AUDACE in service.

**Russia hands over upgraded submarine to Indian Navy**

The refitting of the Indian Navy’s Kilo class diesel-electric submarine INS SINDUGHOSHI has been completed, with Russia handing it over to the crew on 18 October 2005. The work, which started two years ago, involved deep refit and upgrading at the Zvyozdochka Shipyard in Severodvinsk on the White Sea. After successfully passing the final tests in the White Sea, the sub set sail for its home port.

The program will be carried out in accordance with the Navy’s 2003-2013 strategic plan, ”he said.

Based on the strategic plan, the Navy will purchase four corvettes from the Netherlands in two phases. Two ships will be built in the Netherlands in the first phase and PT PAL will build the other two in Indonesia in the second phase.

**USS BELLEAU WOOD decommissions**

The US Navy said farewell as USS BELLEAU WOOD (LHA-3) was decommissiond on Oct. 13, the US Navy’s 238th birthday, at Naval Station San Diego.

BELLEAU WOOD served the US Navy for 27 years and is the first of five Tarawa-class general amphibious assault ships to be decommissioned.

BELLEAU WOOD is the second ship in the Navy to bear the name. Its predecessor, BELLEAU WOOD (CVL-24) was a carrier and served during World War II.

The name Belleau Wood originally comes from an historic World War I battle in France where Marines took on the Germans. After the battle, the Germans respectfully referred to the Marines as ‘Tarawa,’ or Devil Dogs because of their fierceness in battle. The Devil Dogs were the official mascot of BELLEAU WOOD.

The ship’s main mission was Marine transport. The ship has a well deck for deploying conventional and air cushioned landing crafts and a flight deck for launching a variety of helicopters and Harrier jump jets.

BELLEAU WOOD was capable of carrying a complete Marine Expeditionary Unit ashore by helicopter or amphibious craft. BELLEAU WOOD also received numerous awards in its 27 years of service. One of the most important awards came in 1997 when the ship earned its eighth consecutive Battle ‘E’ award. This was significant because it was the first ship in U.S. Pacific Fleet to do so.

**Indonesian corvette purchase proceeds**

The Indonesian Navy will proceed with its plan to purchase four Dutch corvettes (two Sigma Class I and two Sigma Class II type) worth US$1.9 billion, Navy Chief of Staff Admiral Slamet Sobijanto said on 27 October 2005.

“USS GEORGE WASHINGTON was commissioned July 4, 1992. The ship returned from its sixth deployment in July 2004. It deployed to the Mediterranean Sea and Persian Gulf in support of the Global War on Terror.”

**AEGIS shoot off**

**USS KITTY HAWK**

KITTY HAWK will be replaced by a nuclear powered Nimitz class aircraft carrier in 2008. The US believes Japan will accept the nuclear powered ship over the conventionally powered KITTY HAWK. (USN)

**Russian Pacific Fleet makes Asia-Pacific tour**

A group of ships from the Russian Pacific Fleet headed by the missile cruiser VARYAG arrived in Indonesia during October to mark the first Russian fleet presence in the archipelago since 1968.

Vice Admiral and Deputy Pacific Fleet Command Sergeant Arsen Avramenko who commanded the fleet units said the ships had arrived in Indonesia after conducting the Russian-Indian Navy exercise Indo-2005 in the Bay of Bengal in the Indian Ocean.

“The main goal of our cruise is to demonstrate that Russia is a great sea power”, said Admiral Avramenko, adding that it would contribute to international cooperation and promote stability in the Asia-Pacific region.

After completing a port visit the naval units, including the ADMIRAL KUZNETSOV and the ADMIRAL PANTELEYEV, left the Indonesian Western Fleet base of Tanjung Priok for Singapore, which was the first official visit of a Russian fleet to the country. They then visited Thailand and Vietnam before returning to their main base in the Russian far-eastern city of Vladivostok.

**Taiwan takes possession of first two Kidds**

Taiwan’s Navy took possession on 31 October of two previously decommissioned Kidd class destroyers. The ships, christened KEELUNG and SUAO, immediately set sail for Taiwan from Charleston, South Carolina, arriving in Taiwan during December after a long reactivation and refit period.

“These destroyers will boost significantly our air defence and anti-submarine capabilities,” Admiral Chen Pang-chih of the Taiwanese Navy told a local USBable.

Taiwan purchased the four 8,000-ton guided-missile destroyers in 2001 for US$850 million and the first two were decommissioned by the US Navy in 1998, but are expected to remain in service for another 20 years. The destroyers add to Taiwan’s ability to respond to any Chinese attempt to blockade the island or land an invasion force.
crew have met the stringent safety requirements for handling, maintaining and operating the system. HMS VANGUARD will take over duty on operational deployment.

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**HMS VANGUARD at sea. VANGUARD has just returned from an extensive refit and fired a Trident SLBM to prove its readiness to take up its nuclear deterrent patrol duties. (RN)**

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**Multi-functionality of the SPY-1F**

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**USS GEORGE WASHINGTON replaces USS KITTY HAWK**

The US Navy announced on 2 November 2005 that the USS GEORGE WASHINGTON will replace the USS KITTY HAWK as the forward-deployed aircraft carrier in the western Pacific and will arrive in Yokosuka, Japan, in 2008. The USS GEORGE WASHINGTON is currently home ported in Norfolk, Va., and is receiving necessary maintenance and upgrades at Northrop Grumman Newport News Shipbuilding to facilitate this forward deployment.

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**AEGIS shoot off**

The first combined three ship Combat System Qualification Trial (CSSQT) among Aegis ships was successfully completed during last October. USS HOWARD (DDG-83), USS HALEYSE (DDG-97) and Spanish frigate SPS BLAS DE LEIZO (F-103) participated in the tests on the Naval Air Warfare Center Weapons Division (NAWC WD), Pt. Mugu Sea Range. The combined CSSQT culminated in four days of standard missile (SM-2) firings. A total of 11 scenarios were presented with 18 SM-2’s fired at Chukar, BQM-74E, BQM-34S and AQM-37C targets.

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The remaining two destroyers, TSUOYING and MAKUNG, are expected to be handed over to Taiwan late next year.

RSN acquires Västergötland class submarines

The Singaporean Ministry of Defence (MINDEF) has accepted an offer to purchase two Västergötland class submarines from Sweden. It has evaluated the submarines and found them to be a cost-effective opportunity buy to enhance the submarine capabilities of the Republic of Singapore Navy (RSN). The two submarines are expected to enter service from 2010 and will replace some of the RSN's Challenger class submarines.

The contract for the Västergötland class submarines was signed between MINDEF and Kockums AB of Sweden. The agreement includes a logistics package and comprehensive training in Sweden for the crews. The two submarines will also be upgraded and converted for operations in tropical waters before they are delivered to the RSN.

The RSN has had excellent cooperation with the Royal Swedish Navy in submarine training and operations. The RSN had purchased its Challenger class submarines from Sweden in the 1990s to gain experience in operating submarines. As the Västergötland class submarines are also of Swedish origin, the RSN will benefit from synergies in both crew training and logistics support.

USN certifies latest Aegis weapon system

The USN has certified the latest evolution of the Lockheed Martin-developed Aegis Weapon System, which incorporates an organic mine reconnaissance capability to fleet battle groups and increased synergy among mine countermeasures (MCM) and warfare components on the ship. This same RMS will also be integrated on the US Navy's Littoral Combat Ship.

DD(X) Advanced Gun System demonstrates sustained rate of fire

The US DD(X) National Team and the US Navy successfully conducted a rate of fire test for the 155 mm Advanced Gun System (AGS) on Aug. 31. Preliminary results indicate the gun and magazine handling equipment met or exceeded requirements. As the primary battery for DD(X), the fully automated AGS is designed to fire up to 10 precision-guided munitions per minute at ranges up to 83 nautical miles. The test took place on the AGS Land Based Test Site at the U.S. Army Dugway Proving Ground, Utah.

"The combination of a 155mm rapid fire gun, the Long-Range Land Attack Projectile (LRLAP) and the latest in precision munitions will provide DD(X) with a potent strike weapon that will quickly create lethal effects ashore," said Rear Adm. John Warden, DD(X) program manager. "AGS and the Long-Range Land Attack Projectile (LRLAP) are the most advanced weapons systems available to the RN, principally carrying out fire support for the future fleet.

The latest ship in the class will be enhanced with a helicopter deck capable of accepting helicopters up to the size of the new Merlin aircraft, increased accommodation to cater for an embarked force, a bigger gun, higher levels of survivability and surveillance radar.

Like the three earlier River class vessels, she will be funded by VT to provide a full Contractor Logistic Support (CLS) operation including round-the-clock, global maintenance commitment including repairs and spares. Payment of charter fees is based on the initial River class ships being available for sea some 320 days a year and the customer has expressed his full satisfaction with VT's performance in supporting the ships.

Larry Purkiss, CLS Manager for the Defence Logistics Organisation's Minor Warships Integrated Project Team, comments: "VT and the UK MoD have, in partnership, worked together to develop the policies and procedures to deliver whole ship contractor logistic support for the River class OPVs and Echo class Survey vessels. "This has enabled the ships to exceed the very challenging availability targets and delivered significant cost savings for the MoD. The working relationship continues to mature and the lessons learnt are proving invaluable in the development of the support solution for HMS CYLDE, which will be deployed full-time in the Falkland Islands.

By utilising modern automated equipment and commercial maintenance practices, VT will guarantee even greater availability for HMS CYLDE, the latest River-class vessel. This will enable the RN to replace the two ships currently carrying out the Falkland task with a single ship.

Euro frigate planned

The Organisation for Joint Armament Cooperation (OCCAr) has approved the French company ARMARIS and the Italian company Oronzio Sistemi Navali the first phase of a contract for the development and building of a new generation of European multi-mission frigates (the FREMM programme). This initial phase covers the development, building and in-service support for the first eight frigates destined for the new generation of multi-mission frigate (MMF) six in an anti-submarine warfare (ASW) version, and two in a land-strike version. The contract, to be apportioned equally between DCN and Thales, both shareholders in ARMARIS, is valued at 3.5 billion euros. The vessels will be delivered in stages from 2011 to 2015.

Under an inter-governmental Memorandum of Understanding signed on 15 November 2005 by the French and Italian Ministries of Defence, Italy has committed itself to order the extension of its two frigates no later than May 2006. This programme thus confirms the principle of European defence procurement collaboration by extending French-Italian partnership on the Horizon anti-air frigate program, which was launched in October 2000.

“With a total of 27 frigates planned, the FREMM program is set to become the most extensive series of warships ever built in Europe,” affirmed Pierre Legros, Executive Chairman of ARMARIS.

The FREMM frigates will serve as front-line vessels with autonomous strike capabilities. The French frigates will be equipped with the Exocet anti-ship system, Aster 15 vertically-launched air defence missile system and torpedoes guided by a full suite of sonars. All systems were initially designed to be fully integrated with the naval cruise missile system developed by MBDA.

In French service the new frigates will replace three older types of vessels: F67 frigates, F70 frigates and Estienne d'Orves-class A69 Aviso frigates.
The new Remote Minehunting System now going to sea aboard the latest version of the USN’s Arleigh Burke class destroyers. The RMS gives the destroyer the capability to locate mines either on the sea bed or surfaced. (USN)

The USN PINCKNEY, the first ship equipped with the seventh generation of Aegis, has already deployed. The Baseline 7 Aegis Weapon System contains the first complete commercial-off-the-shelf (COTS) Aegis advanced processing computing architecture and the new AN/SPY-1D(V) radar.

The transition to a complete COTS computing environment and network infrastructure increases the Aegis systems’ capability and is a major step toward an open architecture, designed to ease introduction of future computing features and upgrades. The AN/SPY-1D(V) radar system adds the capability to more effectively in littoral environments with automatic adaptive radar mode control as well as more sophisticated ability to defeat electronic countermeasures.

Another integral part of this upgraded system is the ship’s latest Undersea Warfare System, the AN/SQQ-89(V)15, which also incorporates Lockheed Martin’s new Remote Minehunting System (RMS). This further enhances the ship’s multi-mission role by providing an organic mine reconnaissance capability to fleet battle groups and increased synergy among mine warfare and anti-submarine warfare components on the ship. This same RMS will also be integrated on the US Navy’s Littoral Combat Ship.

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The Army has been an excellent host at Dugway.”

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The River class arrangement calls for VT to provide a full Contractor Logistic Support (CLS) operation embracing a round-the-clock, global maintenance commitment including repairs and spares. Payment of charter fees is based on the initial River class ships being available for sea some 320 days a year and the customer has expressed his full satisfaction with VT’s performance in supporting the ships.

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SHIPPING BECOMES NEWSWORTHY

For several reasons the shipping industry has received a good deal of attention in recent times, but more related to security issues (port vulnerability) and computer shortcomings (resulting in a huge buildup of containers) than to recognition of the industry’s importance to the national well-being.

Over the years this magazine has carried numerous articles pointing out the obvious link between Australia’s trading activities and the merchant shipping industry and an apparent failure by successive governments during the past 25 or so years to address problems – problems of which they were made well aware by several inquiries – that prevented the local industry from being fully used to the country’s advantage.

As has been remarked by this writer and others before, most Australians are conscious of the sea, a great many live on the coastline, a need for many communities that continued virtually until World War II. For many years locally established companies thrived carrying passengers and cargoes across the coast but sadly, few survived the war, those that did becoming involved with industries other than shipping.

Nevertheless the settlement of Australia could not have developed as it did without seafarers and ships to service the isolated communities that grew up around the country’s long coastline, a need for many communities that continued virtually until World War II. For many years locally established companies thrived carrying passengers and cargoes across the coast but sadly, few survived the war, those that did becoming involved with industries other than shipping.

We at least two attempts were made to enter the overseas trade, long dominated by British (in the main) and by foreign interests. Due to the withdrawal of much of this shipping during the First World War, the government of the day acquired a number of ships and entered the overseas trade with the Commonwealth Line of Steamers: Operations ceased and the ships were sold to Britain by a succeeding government in 1921. The well-known BAY liners – MORETON BAY, JERVIS BAY, LARGS BAY, HOBSONS BAY and ESPERANCE BAY. JERVIS BAY was converted to an armed merchant cruiser on the outbreak of World War II and was sunk by the German pocket battleship ADMIRAL SCHEER, with the loss of most of her crew, in November 1940 while trying to defend the convoy she was escorting. Her Captain, Captain Fogarty Fegen RN was awarded a posthumous Victoria Cross. The four remaining BAYs returned to the Australian service after the war as members of a Shipping Conference. By 1977 the ANL had a fleet of 34 ships, 10 engaged in overseas trading and 24 in coastal service, but it operated under a plethora of rules and restrictions some designed to protect the private sector of the industry.

Shipping is a cyclical business and like numerous other industries subject to fluctuations in economic conditions, not only in the home country, but in all the other countries with which trade is conducted. Adding to the problems of the Australian shipping industry, in the nineteen-eighties and nineties the government of the day, in a flurry of economic rationalisation ‘privatised’ a number of the government-controlled enterprises including the Commonwealth Bank, Qantas, major airports – and in 1994 the Australian National Line. The last-named brought to an end the nation’s second venture into the overseas trade and once again caused a vital trading link to become subject to decisions in other countries.

Sadly, little has changed for the coastal sector of the industry in recent years, the resources companies own a handful of ships to transport minerals and gas to overseas customers – any progress made has been described as ‘glacial’ – and make it difficult for the locally owned industry to compete with the US Navy’s anti-submarine warfare force. They were eventually produced in large numbers but through a controversial procurement approach from a single source supplier.

A product of the Vietnam era of technocrats running the Pentagon, the Spruance class of fleet destroyers were conceived as a replacement for the aging WW II era destroyers which comprised the bulk of the US Navy’s anti-submarine warfare force. They were eventually produced in large numbers but through a controversial procurement approach from a single source supplier.

The Spruance class were intended to provide a specialist ASW destroyer to the US Navy to replace the aging WW II era Fletcher, Gearing and Sumner class destroyers. Despite undergoing extensive modifications under the Fleet Rehabilitation and Modernisation (FRAM) program, these aging ships were proving incapable of dealing with the threats posed by the Soviet submarine fleet.

What was needed was a ship that was large enough to keep up with an aircraft carrier in rough weather at high speeds, roomy enough to operate at least one and preferably two helicopters for ASW operations, capable of supporting the extremely large sonar systems essential to locate and track submarines in the deep ocean, and roomy enough to accommodate new weapon systems and electronics throughout the front of every US military operation since 1975. With the retirement of the last Spruance, USS CUSHING in September 2005, the era of the USN’s specialist ASW ships has ended, their role to be assumed by the Arleigh Burke class Aegis destroyers.

With their retirement, a re-evaluation of these flexible ships is in order.

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Limitations in sea keeping, habitability, the inability to effectively operate an embarked helicopter and lacking the room to accommodate increased electronics required in a modern warship meant that the decision to build a replacement could not be put off.

What was needed was a ship that was large enough to keep up with an aircraft carrier in rough weather at high speeds, roomy enough to operate at least one and preferably two helicopters for ASW operations, capable of supporting the extremely large sonar systems essential to locate and track submarines in the deep ocean, and roomy enough to accommodate new weapon systems and electronics throughout her.
Observations

By Geoff Evans OB EY RD

SHIPPING BECOMES NEWSWORTHY

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Over the years this magazine has carried numerous articles pointing out the obvious link between Australia’s trading activities and the merchant shipping industry and an apparent failure by successive governments during the past 25 or so years to address problems – problems of which they were made well aware by several inquiries – that prevented the local industry from being fully used to the country’s advantage.

As has been remarked by this writer and others before, most Australians are conscious of the sea, a great many live on the seaboard and know that their country is an island continent, but do not see it as a maritime nation, certainly not in the sense Britain, the Scandinavian countries and a handful of others are so regarded. Perhaps the vastness of the inland is seen as more challenging than the sea and so the gaze tends to be inward rather than outward.

Nevertheless the settlement of Australia could not have developed as it did without seafarers and ships to service the isolated communities that grew up around the country’s long coastline, a need for many communities that continued virtually until World War II. For many years locally established companies thrived carrying passengers and cargo around the coast but sadly, few survived the war, those that did becoming involved with industries other than shipping.

At least two attempts were made to enter the overseas trade, long dominated by British (in the main) and by foreign interests. Due-to the withdrawal of much of this shipping and the need to address problems – problems of which they were made well aware by several inquiries – that prevented the local industry from being fully used to the country’s advantage.

The early years of the ANL were marked by the sale of old ships and their replacement by modern, including purpose-built, vessels; entry into both coastal and overseas trades, the latter including the world’s first roll-on roll-off service (to Japan); ships for the fast-growing ‘container’ service and membership of a Shipping Conference. By 1977 the ANL had a fleet of 34 ships, 10 engaged in overseas trading and 24 in coastal service, but it operated under a plethora of rules and restrictions some designed to protect the private sector of the industry.

Shipping is a cyclical business and like numerous other industries subject to fluctuations in economic conditions, not only in the home country, but in all the other countries with which it trades. The problems of the Australian shipping industry, in the nineteen-eighties and nineties the government of the day, in a flurry of economic rationalisation ‘privatised’ a number of lucrative government-controlled enterprises including the Commonwealth Bank, Qantas, major airports – and in 1994 the Australian National Line. The last-named brought to an end the nation’s second venture into the overseas trade and once again caused a vital trading link to become subject to decisions in other countries.

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Sadly, little has changed for the coastal sector of the industry in recent years, the resources-companies own a handful of ships to transport minerals and gas to overseas customers and for local use, but almost all restrictive regulations remain – any progress made has been described as “glacial” – and make it difficult for the locally owned industry to compete with foreign-owned ships not necessarily subject to the same restrictions. Perhaps one of these days Australians will become truly sea-minded and appreciate it for values other than pleasure, the reverse in fact... and that he wanted me to run the Line as if I had my own funds at risk and that if we paid a dividend of 6% on its capital and kept anything extra to build up the business it would be all right with him – but just give me the money, Mister”. The new Chairman agreed and clearly the atmosphere of mutual trust and confidence that existed between Williams and a succession of Shipping Ministers during his 15-year chairmanship was an important factor in the success of the ANL during this time.

The Spruance’s have had a lasting impact on the USN. A product of the Vietnam era of technocrats running the Pentagon, the Spruance class of fleet destroyers were conceived as a replacement for the aging WW II era destroyers which comprised the bulk of the US Navy’s anti-submarine warfare force. They were eventually produced in large numbers but through a controversial procurement approach from a single source supplier.

More than twice the size of their predecessors of the Charles F Adams class, the Spruance class attracted trenchant criticism from a wide variety of foes in politics, industry and within the USN.

Despite their large size, they appeared to carry few weapon systems, particularly in comparison to their Soviet contemporaries. The Spruance class were designed to accommodate the electronics, sensors and armament to undertake anti-submarine warfare (ASW) against the Soviet submarine fleet on the high seas, and with space and weight to accommodate the fitting of new weapons and sensors throughout their career.

The Spruance’s have had a lasting impact on the USN. Every major non-nuclear surface warship larger than a frigate built for the USN between 1975 and 1991 has been a Spruance or a descendant of that design ( Kidd class guided missile destroyer or Ticonderoga class cruiser). Their replacements, the Arleigh Burke class destroyers, are in many ways a less effective ASW platform than the ships they are replacing.

Over a career of almost thirty years, the 31-strong Spruance class served the USN in every ocean and have been in the forefront of every US military operation since 1975. With the retirement of the last Spruance, USS CUSHING in September 2005, the era of the USN’s specialist ASW ships has ended, their role to be assumed by the Arleigh Burke class Aegis destroyers.

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Limitations in sea keeping, habitability, the inability to effectively operate an embarked helicopter and lacking the room to accommodate the increased electronics required in a modern warship meant that the decision to build a replacement could not be put off.

What was needed was a ship that was large enough to keep up with an aircraft carrier in rough weather at high speeds, roomy enough to operate at least one and preferably two helicopters for ASW operations, capable of supporting the extremely large sonar systems essential to locate and track submarines in the deep ocean, and roomy enough to accommodate new weapon systems and electronics throughout
other costs associated with introducing this complete “weapon price, which covered development, production, spare parts, and class from a single source. Known as Total Package (TPP), the intention was to realise economies of scale by sourcing the ships from a single yard. The winning contract bound the winning bidder up with modifications to the design to better meet Navy employment.

At more than 8,000 tonnes full load the new destroyers were almost twice the displacement of the preceding Charles F Adams class, and seemed significantly underarmed for their size. The so-called nuclear power mafia, led by Admiral Hyman Rickover, demanded that any large combatant (defined as 8,000 tons) should be powered by nuclear reactors. The destroyer procure office’s intention was that the new technology of gas turbines would power the new ships, this battle was long and acrimonious before gas turbines won out. 

Despite lobbying the US Congress by the nuclear power industry, the decision was made to fit the new destroyers with the General Electric LM-2500 gas turbine, the first warships in the USN to be designed from the start for such propulsion systems. 

The Litton shipbuilding facility commenced initial construction on the first of the new destroyers, USS SPRUANCE, DD-963, in 1972. The interim period between contract signing and commencement of building taken up with modifications to the design to better meet Navy requirements, and the recruitment and training of a workforce to build the new ships. Given the challenges inherent in building a completely new class of warships, using the new (to the Navy) method of modular construction, Litton agreed to build the first two destroyers in the conventional manner from the keel up, incorporating lessons learned into the modular design).

Despite these precautions it soon became apparent that Litton was not up to the challenges of the job. In addition to the Spruance class, Litton was also building the Tarama class amphibious assault ships and a number of commercial vessels. It found itself unable to effectively manage the changes created by the new destroyers. By 1973 the USN was working closely to try and bring the program back on schedule, however, time and cost overruns continued to bedevil the program. Much of the Navy’s cost savings anticipated from a sole source contract under TPM evaporated as delays and costs mounted at Litton. Such was the controversy over the Spruance class destroyers that they became an election issue, with the unsuccessful Democrat candidate for the 1972 Presidential election, George McGovern calling for the scrapping of the entire program. It was only with the uncovering of the Watergate conspiracy in 1973 that political and media attention turned away from the new destroyer program to events unfolding in Washington that would destroy President Richard Nixon.

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NEAR SISTERS

The hull and propulsion design of the Spruance class destroyers provided the basis for two additional classes of warships. The Shah of Iran ordered six guided missile destroyers as part of Iran’s ambition to control the waters of the Persian Gulf. The Spruance design was modified to support two Mk-26 twin arm missile launchers, plus a more comprehensive radar suite, particularly an SPS-48 3D air search radar and missile illuminators necessary for the anti-air role. The ARSOAC ASW launcher from the Spruance design was deleted to make way for the forward Mk-26 launcher while changes aft allowed the fitting of the aft launcher. Other changes included additional air conditioning and dust filters for operations in the Persian Gulf.

With the overthrow of the Shah in 1979, the new Iranian government cancelled the contract, which was assumed by the USN, resulting in the acquisition of four extremely capable guided missile destroyers for the cost of a frigate each, perhaps one of the great naval bargains of the 20th century. The size of the Spruance hull was also deemed large enough to provide the basis for a new anti-air warfare class of ships based around the massive SPY-1 phased array radar system and the Aegis command and control system. Once again critics tied to push for a nuclear powered vessel. However the significant economic benefits of a conventional gas turbine powered design sharing much in common with the Spruance class made too much sense to ignore. Gas turbines where thus chosen to power the 27 Ticonderoga class cruisers subsequently ordered.

The SPY-1 radar system required significant changes to the superstructure of the Spruance class, resulting in a major increase in top weight and reduced freeboard and stability. The Aegis command and control system is so powerful that the Ticonderoga class have become the vessel of choice for on-scene commanders. Their comprehensive command, control and communications suites allows a commander to remain fully aware of the surface, air and subsurface “picture”, resulting in more effective decision making, and a more effective performance by all units in a task force.

While initial armament was similar to the Kidd class, all ships after the first four were completed with vertical launch systems, resulting in a total of 122 missiles being carried in the vertical launch system, compared with the 104 missiles of the Kidd’s twin arm launchers. The vertical launch system also offered faster reaction times and required less maintenance, plus the ability to accommodate the Tomahawk land attack missile.

ENTRY INTO SERVICE

USS SPRUANCE commenced sea trials in February 1975, and answered her many critics by consistently meeting or exceeding the contract specifications demanded from Litton’s. In areas such as ships speed, sea keeping, internal noise silencing and manoeuvrability Spruance clearly exceeded her designer’s expectations. What soon became apparent was that in the SPRUANCE class the USN had the quietest, most capable ASW ships in its history. Operations to follow only reinforced the growing confidence of the Navy in the capabilities of the new ships.

Following initial trials each ship returned to the yard for

BUREAUCRATIC BATTLES

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The so-called nuclear power mafia, led by Admiral Hyman Rickover, demanded that any large combatant (defined as 8,000 tons) should be powered by nuclear reactors. The destroyer procure office’s intention was that the new technology of gas turbines would power the new ships, this battle was long and acrimonious before gas turbines won out. Despite lobbying the US Congress by the nuclear power industry, the decision was made to fit the new destroyers with the General Electric LM-2500 gas turbine, the first warships in the USN to be designed from the start for such propulsion systems. It found itself unable to effectively manage the changes created by the new destroyers. By 1973 the USN was working closely to try and bring the program back on schedule, however, time and cost overruns continued to bedevil the program. Much of the Navy’s cost savings anticipated from a sole source contract under TPM evaporated as delays and costs mounted at Litton. Such was the controversy over the Spruance class destroyers that they became an election issue, with the unsuccessful Democrat candidate for the 1972 Presidential election, George McGovern calling for the scrapping of the entire program. It was only with the uncovering of the Watergate conspiracy in 1973 that political and media attention turned away from the new destroyer program to events unfolding in Washington that would destroy President Richard Nixon.

The Kidd class destroyer USS CALLAGHAN. The Kidds are almost identical to the Spruances except for their weaponry and associated electronics. The Kidds were the most powerful destroyers in the US Fleet having the same armament as many US cruisers of the day. The four Kidds are currently undergoing modernisation for use in the Taiwanese Navy.
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Linton Shipbuilding, having built more conventional designs from Bath Iron Works and Gibbs & Cox, proposed the winning design, based on a modular construction principal commonly used in commercial shipbuilding. This too attracted criticism from opponents who claimed that a modular design would be unsuitable for a warship, and hinted darkly that the ship would not survive the stresses of combat operations and battle damage.

Finally, despite continued opposition to the TPP concept and the new destroyer’s design, the contract was signed on June 23, 1970. At which time it was announced that the new destroyers would be known as the Spruance class, after Admiral Raymond Spruance, the tactical commander at the Battle of Midway, who followed that crushing victory with a series of decisive naval battles, and the new destroyer’s design, the contract was signed on June 23, 1970. At which time it was announced that the new destroyers would be known as the Spruance class, after Admiral Raymond Spruance, the tactical commander at the Battle of Midway, who followed that crushing victory with a series of decisive naval battles.

CONSTRUCTION COMMENCES

The Linton shipbuilding facility commenced initial construction on the first of the new destroyers, USS SPRUANCE, DD-963, in 1972. The interim period between contract signing and commencement of building being taken up with modifications to the design to better meet Navy requirements, and the recruitment and training of a workforce to build the new ships. Given the challenges inherent in building a completely new class of warships, using the new (to the Navy) method of modular construction, Linton agreed to build the first two destroyers in the conventional manner from the keel up, incorporating lessons learned into the modular design.

Despite these precautions it soon became apparent that Linton was not up to the challenges of the job. In addition to the Spruance class, Linton was also building the Tarama class amphibious assault ships and a number of commercial vessels. It found itself unable to effectively manage the challenges created by the new destroyers. By 1971 the USN was working closely to try and bring the program back on schedule, however, time and cost overruns continued to bedevil the program. Much of the Navy’s cost savings anticipated from a sole source contract under TPP evaporated as delays and costs mounted at Linton.

Such was the controversy over the Spruance class destroyers that they became an election issue, with the unsuccessful Democratic candidate for the 1972 Presidential election, George McGovern calling for the scrapping of the entire program. It was only with the uncovering of the Watergate conspiracy in 1973 that political and media attention turned away from the new destroyer program to events unfolding in Washington that would destroy President Richard Nixon.

NEAR SISTERS

The hull and propulsion design of the Spruance class destroyers provided the basis for two additional classes of warships. The Shah of Iran ordered six guided missile destroyers as part of Iran’s ambition to control the waters of the Persian Gulf. The Spruance design was modified to support two Mk-26 twin arm missile launchers, plus a more comprehensive radar suite, particularly an SPS-48 3D air search radar and missile illuminators necessary for the anti-air role. The ASROC ASW launcher from the Spruance design was deleted to make way for the forward Mk-26 launcher while changes at allowed the fitting of the aft launcher. Other changes included advanced air conditioning and dust filters for operations in the Persian Gulf.

With the overthrow of the Shah in 1979, the new Iranian government cancelled the contract, which was assumed by the USN, resulting in the acquisition of four extremely capable guided missile destroyers for the cost of a frigate each, perhaps one of the great naval bargains of the 20th century.

The size of the Spruance hull was also deemed large enough to provide the basis for a new anti-air warfare class of ships based around the massive SPY-1 phased array radar system and the Aegis command and control system. Once again critics tied to push for a nuclear powered vessel.

However the significant economic benefits of a conventional gas turbine powered design sharing much in common with the Spruance class made too much sense to ignore. Gas turbines where thus chosen to power the 27 Ticonderoga class cruisers subsequently ordered.

The SPY-1 radar system required significant changes to the superstructure of the Spruance class, resulting in a major increase in ton weight and reduced freeboard and stability. The Aegis command and control system is so powerful that the Ticonderoga class have become the vessel of choice for on-scene commanders. Their comprehensive command, control and communications suites allows a commander to remain fully aware of the surface, air and subsurface “picture”, resulting in more effective planning, training and a more effective performance by all units in a task force.

While initial armament was similar to the Kidd class, all ships after the first four were completed with vertical launch systems, resulting in a total of 122 missiles being carried in the vertical launch system, compared with the 104 missiles of the Kidd’s twin arm launchers. The vertical launch system also offered faster reaction times and required less maintenance, plus the ability to accommodate the Tomahawk land attack missile.

ENTRY INTO SERVICE

USS SPRUANCE commenced sea trials in February 1975, and answered her many critics by consistently meeting or exceeding the contract specifications demanded from Linton’s. In areas such as ships speed, sea keeping, internal noise silencing and manœuvrability Spruance clearly exceeded her designer’s expectations. What soon became apparent was that in the SPRUANCE class the USN had the quietest, most capable ASW ships in its history. Operations to follow only reinforced the growing confidence of the Navy in the capabilities of the new ships.

Following initial trials each ship returned to the yard for
additional equipment and armament supplied by the USN. The first to appreciate the capabilities of the new ships were the Destroyer Squadron staff, the roomy spaces and improved habitability of the Spruance class saw them rapidly becoming the preferred flagship for the Commodore and his staff. The standard fitting of the NTDS (Naval Tactical Data System – an electronic data sharing system to allow multiple ships to share the tactical information available to any ship in the group) and sophisticated communications facilities only added to the new ship’s attractiveness as a flagship.

Adapting to the effectiveness of the Spruance class in the years after they entered service was a range of new equipment that improved the ships’ capabilities. Harpoon anti-ship missiles; Tomahawk land attack missiles; self defence Rolling Airframe Missile (RAM) missile launcher; Phalanx close in weapon systems; towed array sonar; vertical launch missile systems; a range of new electronic warfare and electronic surveillance systems and the LAMPS II Seahawk helicopter were all accommodated on board, thanks to the foresight of the designers who had incorporated space and weight allowances for new equipment throughout the Spruance’s operational career.

**END OF THE LINE**

With the end of the Cold War and the disappearance of the ‘Soviet threat’, the USN was called upon to provide a “Peace Dividend”. To achieve a significant reduction in operating costs the USN retired many classes of ships, leaving a core surface fleet comprising Ticonderoga class cruisers, Kidd and Spruance class destroyers and Perry class frigates.

Continuing reductions in funding forced additional hard decisions on the US Navy in the late 1990s, and a decision was made to further reduce the core surface fleet to the Ticonderoga class cruisers and Arleigh Burke class destroyers. Both ship classes are equipped with the powerful Aegis anti-air warfare system, and are capable ASW combatants, although generally considered not the equal of the Spruance class in that role.

The drastic reduction of the Soviet-era submarine fleet, the threat for which the Spruance was designed for, and the limited submarine capability of potential enemies such as China, saw the spotlight fall away from the Spruance class. With the USN having made the strategic claim that they could deal with possible enemy submarines, it was argued that the specialist ASW capability of the Spruance class was no longer required. Despite misgivings in some parts of the USN, the decision was reluctantly made to retire the class and free up money and manpower for more modern vessels.

The Spruances’ near sisters, the four Kidd class guided missile destroyers, have found homes with the Taiwanese Navy after being offered to the Royal Australian Navy. For the Spruances however, their age, large size, significant crewing demands, and the fact they were no longer required for the Vietnam War, which consumed the funding that should have supported the construction of new destroyers in the late 1960s and early 1970s. Before the Spruance class arrived, the majority of the USN destroyer fleet was made up of increasingly decrepit WWII era ships of the Gearing, Fletcher and Sumner classes, and the anti-air warfare Charles F Adams class.

The Spruance introduced modular construction; modern standards of habitability; solid-state electronics and gas turbines into the fleet, and over a 30-year career have provided outstanding value for money to the United States.

**CONCLUSION**

The Spruance class provided the USN with a revitalisation of its destroyer fleet, reversing the decline brought on by the Vietnam War, which consumed the funding that should have supported the construction of new destroyers in the late 1960s and early 1970s. Before the Spruance class arrived, the majority of the USN destroyer fleet was made up of increasingly decrepit WWII era ships of the Gearing, Fletcher and Sumner classes, and the anti-air warfare Charles F Adams class.

The Spruance class outlived that role, and found employment across the entire range of naval operations, from diplomacy to humanitarian operations, from law enforcement to naval gunfire support, from cruise missile strikes to convoy escorts. Their linear descendants, the Ticonderoga class cruisers, will remain in service for at least another 15-20 years.

**FINAL FIT OUT SPECIFICATIONS**

**Displacement, tons:** 5,770 light; 8,040 full load
**Dimensions, feet (metres):** 563.2, 55.1, 19; 29 (sonar)

**Main machinery:** 4 GE LM 2500 gas turbines; 86,000 hp (64,16 MW); sustained; 2 shafts; cp props
**Speed, knots:** 33; Range, n miles: 6,000 at 20 kt

**Complement:** 519-539 (20 officers)

**Missiles:**
- Tomahawk: Tercom aided guidance to 1,300 km (700 n miles) (TLAM-C and D) or 1,853 km (1,000 n miles) (TLAM-C Block III) or 347 kg shaped charge (TLAM-C Blocks II and III) or submunitions (TLAM-D).
- MK-41 Mod 0 VLS with one 61 missile magazine.
- Harpoon (2 quad); active radar homing to 130 km (70 n miles) at 0.9 Mach; warhead 227 kg.
- RAM: Raytheon GMLS Mk-29 octuple launch, 24 Sea Sparrow, semi-active radar homing to 14.6 km (8 n miles) at 2.5 Mach; warhead 19 kg.
- GDC: RAM launcher; passive IR/anti-radiation homing to 9.6 km (5.2 n miles) at 2 Mach; warhead 9.1 kg.
- ASW: Local ASROC VLA can be carried; inertial guidance to 16.6 km (9 n miles); payload Mk. 46 Mod 5 Nearpt.

**Guns:**
- 2 FMC 5 in (127 mm)/54 Mk. 45 Mod 0/1; 20 rds/min to 23 km (12.6 n miles) anti-surface; 15 km (8.2 n miles) anti-aircraft; weight of shell 32 kg.
- 2 General Electric/General Dynamics 20 mm/76 6-barrelled MiK-15 Vulcan Phalanx; 3,000 rds/min (4,500 in Batch 1) combined to 1.5 km.
- 4-12.7 mm MGs.

**Torpedoes:**
- 6-324 mm Mk-32 (2 triple) tubes.
- 14-Honeywell Mk-46; anti-submarine; active/passive homing to 11 km (5.9 n miles) at 40 kt; warhead 45 kg or Alliant/Westinghouse Mk-50; active/passive to 15 km (8.1 n miles) at 50 kt; warhead 45 kg shaped charge. The tubes are inside the superstructure to facilitate maintenance and reloading. Torpedoes are fired through side ports.

**Countermeasures:**
- Decoys: 4 Lancry Hycon SRROC 6-barrelled fixed Mk-36; IR flares and chaff to 0.4 km (2.2 n miles).
- SLQ-39 chaff buzy.
- SLQ-25 Nixie: torpedo decoy. Prairie/Marker hull/blade rate noise suppression system.
- ESM/ECM: SLQ-32(V)2; radar warning. Sidekick modification adds jammer and deception system.

**Combat data systems:**
- NTDS with Links 11 and 14. SATCOMS SRR-1, WSC-3 (UBF).
- SQ-28 for LAMPS datalink.

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**Radar:**
- Air search: Lockheed SPS-40B/C/D; B-band; range 320 km (175 n miles).
- Raytheon SPS-49V (in DD; 997 only); C/B-band; range 457 km (230 n miles).
- Surface search: ISC Carbond SPS-55; E-band.
- Navigation: Raytheon SPS-64/J/V; J-band.
- Fire control: Lockheed SPG-60; E-band.
- Lockheed SPG-9A or 9B (DD;972); J-band.
- Raytheon Mk-95; J-band (for SAM).

**Sonars:**
- SQS-89(V6) including GE/Hughes SQS-53/CB; bow-mounted; active search and attack; medium frequency.
- Gould SQS-19 (TACTAS); passive towed array.

**Helicopters:**
- 2 SH-60B LAMPS III.
additional equipment and armament supplied by the USN.

The first to appreciate the capabilities of the new ships were the staff of the battleship staff, the spacious and improved habitability of the Spruance class saw them rapidly becoming the preferred flagship for the Commodore and his staff. The standard fitting of the NTDS (Naval Tactical Data System – an electronic data sharing system to allow multiple ships to share the tactical information available to any ship in the group) and sophisticated communications facilities only added to the new ship's attractiveness as a flagship.

Adding to the effectiveness of the Spruance class in the years after they entered service was a range of new equipment that improved the ships' capabilities. Harpoon anti-ship missiles; Tomahawk land attack missiles; self defence Rolling Airframe Missile (RAM) missile launcher; Phalanx close in weapon systems; towed array sonar; vertical launch missile systems; a range of new electronic warfare and electronic surveillance systems and the LAMPS II Seaknight helicopter were all accommodated on board, thanks to the foresight of the designers who had incorporated space and weight allowances for new equipment throughout the Spruance's operational career.

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The drastic reduction of the Soviet-era submarine fleet, the threat for which the Spruance was designed for, and the limited submarine capability of potential enemies such as China, saw the spotlight fall away from the Spruance class. With the USN submarine force claiming that they could deal with the limited threat for which the Spruance was designed for, and the limited range of naval operations, from law enforcement to naval gunfire support, from cruise missile strikes to convoy escorts. Their lineal descendants, the Ticonderoga class cruisers, will remain in service for at least another 15-20 years.

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The Spruance introduced modular construction; modern standards of habitability; solid-state electronics and gas turbines into the fleet, and over a 30-year career have provided outstanding value for money to the United States. Considered not the equal of the Spruance class in that role.

The Spruance class destroyers USS ARTHUR W. RADFORD. This ship was used as a target platform for a radar homing (amphibious) for the new DD(X) project for the USN. It was knowing how to ‘visualise’ the radar antenna (USN).
In early 2005, the Coalition Forces Maritime Component Commander, Vice Admiral Dave Nichols, United States Navy (USN), from the US Naval Central Command covering the Persian Gulf, approached the Royal Australian Navy (RAN) to provide a command team for operations in the Northern Persian Gulf. This request was viewed as a great honour for the RAN and the Australian Defence Force (ADF) as a whole, as it demonstrated the high regard the United States and coalition partners have for the professionalism of the men and women of the RAN.

The request from the US was approved by the Australian Government in February 2005 with Commodore (CDRE) Steve Gilmore, CSC RAN, subsequently appointed as Commander Task Force 58 (CTF-58). Forty officers and sailors representing a broad range of specialist skills including communications, operations, intelligence and maritime law were drawn – primarily from Deployable Joint Force Headquarters (Maritime) – and posted to make up the command team, with Captain Stuart Mayer, RAN, appointed to the Deputy CTF position.

The RAN had an ongoing commitment to coalition operations and a regular presence in the Northern Persian Gulf since the first Gulf War in 1991. The vital post war involvement by a number of RAN units was essentially in support of coalition maritime interaction operations (MIO) in order to enforce United Nations sanctions against what is now the former regime of Saddam Hussein.

This role changed to combat operations during the second Gulf War and significantly, HMAS ANZAC fired the first shots ‘in anger’ since the Vietnam War. Subsequently, after the collapse of Saddam Hussein’s regime, the role transformed to activity focussed on maritime security and stability. Many RAN ships have contributed to the MIO role with great professionalism and success over the years. Several RAN officers, and their respective staffs, have served with distinction in command of MIO in the Gulf between 2001 and 2004.

The mission of CTF-58 is, however, considerably broader and encompasses the conduct of all coalition maritime security operations across the Northern Persian Gulf. These operations aim to set the conditions for security and stability in the maritime environment and include a range of specific tasks. These tasks include the protection of key infrastructure, interception operations (that seek to pressure the environment and thereby deter, deter and deny terrorists use of the sea, anti-piracy operations, theatre security cooperation and escort of military sealift command shipping.

The evolving scope and circumstances of this mission elevated TF-58 Command to a one-star position during 2004. As such, the appointment of CDRE Gilmore as the CTF was of historical significance as it was the first time the RAN has held this level of tactical responsibility in a coalition theatre of operations since World War II.

During the RAN period of command TF 58 was variously made up of warships from the US, UK, Australia and Iraq. These ships included a guided missile cruiser, frigates (including HMAS DARWIN and then NEWCASTLE), patrol boats, coast guard cutters, a forward support ship, fast attack boats and a US Navy special boat team. Also assigned to TF 58 were USN maritime security detachments and Iraqi marines embarked on the two large Iraq oil platforms for point defence duties. Shore based HH-60 Seahawk helicopters completed the more regular composition of the force.

CDRE Gilmore exercised command from the USN guided missile cruiser USS ANTIETAM, which also performed the role of flagship during April and May 2005, and then from sister ship, USN NORMANDY, from June until August. At any one time there were up to 1,700 sailors and marines under the command of CTF-58.

The most significant responsibility – and one that was constantly on the minds of the entire Command team – was the protection of the vital Iraq oil platforms. Ninety-five per cent of Iraq’s oil exports are shipped through these platforms, generating approximately 80% of Iraq’s gross domestic product. During CTF-58’s tenure, the oil platforms pumped in excess of US$7 billion worth of oil. Their importance to the people of Iraq, and the rebulding of their economic infrastructure, cannot be overstated. In April 2004 these platforms were attacked by insurgents and tragically resulted in the death of three US servicemen from USS FIREBOLT.

Involved in the protection of the oil platforms, HMAS STUART was first on the scene and provided critical support to the victims of the attack. Significant efforts were made to further develop the security of these platforms and many initiatives were introduced to enhance their protection during the tenure of the Australian CTF-58.

Security of the legitimate maritime community – merchant vessels and the local fishing fleet – operating in the Northern Persian Gulf presented a challenge to TF-58. Considerable traffic density and the ever-present threat from insurgents created circumstances that demanded well-planned and skillfully executed visit and boarding operations. The calibre and capability of the boarding teams (provided by each participating nation), enabled such activity to be successfully conducted, with over 650 boardings completed by Task Force units during the deployment.

As CTF-58, CDRE Gilmore was responsible for the development and integration of Iraq navy and marine assets into the task force mission. In time, this will lead to an eventual transition of responsibility for maritime security operations around the oil platforms and within territorial waters to the Iraq forces. This aspect of the CTF-58 mission is a crucial element in the rehabilitation and reconstruction of Iraq.

Members of the Australian command team training sailors aboard USN NORMANDY in the Persian Gulf to some Aussie culture, The BBQ (RAN)

TF-58 staff took the lead in the establishment of the Iraqi transition working group, which brought together all the key players responsible for the training, development and operational deployment of the Iraq Navy, into a single formal body to direct and manage the transition process. Significantly, the Australian staff developed and promulgated the Iraq Transition Roadmap (IQR). This crucial document was constructed in close consultation with the Iraq Navy (IQN) Operations Headquarters and the UK-led Assistance and Support Team (AST) responsible for training at the Iraq shore base in Umm Qasr. The IQR is a comprehensive plan for the preparation, training and certification of the Iraq Navy, including the marines. It also contains information on force structure, capability requirements, procurement plans, mission sets, and training and equipment issues associated with the conduct of operations in Iraq territorial seas.

As part of the IQR, a comprehensive process to test and, where appropriate, certify Iraq Navy units as proficient to successfully integrate into the coalition TF was undertaken by CTF-58. As a consequence of this hard work, and the determination of the IQN, Iraq patrol boats are now conducting a variety of operations alongside coalition partners. Iraqi marines are also in a certification process that seeks to facilitate transition of point defence of the two oil terminals to them before the end of 2005. At each milestone, the IQN and marines will relieve coalition assets for subsequent redeployment.

The opportunity to provide Australian leadership of such a significant coalition task force, engaged in vital operations in a dynamic and most challenging environment, has been a career highlight for the 15 RAN personnel. It has also been of considerable importance to the RAN, reflecting the enviable reputation it has as a world class Navy able to fight and win at sea.

Commander Task Force 58 – Australian lead in the Northern Persian Gulf

By Lieutenant Commander Kirk Hayden RAN

The Endeavour-class frigate USS ANTIETAM in the Persian Gulf flying the pennant of CDRE Steve Gilmore RAN from the forward mast. At the time USS ANTIETAM was the command ship for Coalition Task Force 58. (RAN)
In early 2005, the Coalition Forces Maritime Component Commander, Vice Admiral Dave Nichols, United States Navy (USN), from the US Naval Central Command covering the Persian Gulf, approached the Royal Australian Navy (RAN) to provide a command team for operations in the Northern Persian Gulf. This request was viewed as a great honour for the RAN and the Australian Defence Force (ADF) as a whole, as it demonstrated the high regard the United States and coalition partners have for the professionalism of the men and women of the RAN.

The request from the US was approved by the Australian Government in February 2005 with Commodore (CDRE) Steve Gilmore, CSC RAN, subsequently appointed as Commander Task Force 58 (CTF-58). Fourteen officers and sailors representing a broad range of specialist skills including operations, communications, logistics, intelligence and maritime law were drawn – primarily from Deployable Joint Force Headquarters (Maritime) – and posted to make up the command team, with Captain Stuart Mayer, RAN appointed to the Deputy CTF position.

The RAN had an ongoing commitment to coalition operations and a regular presence in the Northern Persian Gulf since the first Gulf War in 1991. The vital post war activity focussed on maritime security and stability. Many RAN officers and sailors represent a broad range of specialist skills including operations, communications, logistics, intelligence and maritime law were drawn – primarily from Deployable Joint Force Headquarters (Maritime) – and posted to make up the command team, with Captain Stuart Mayer, RAN appointed to the Deputy CTF position.

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The evolving scope and circumstances of this mission provided unique challenges and opportunities. The mission differed from the first Gulf War in that it was a long-term operation, requiring sustained engagement and a commitment to long-term security and stability. The RAN had a strong presence in the region and a history of successful operations in the area.

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In April 2004, the RAN had held this level of tactical responsibility in a coalition theatre of operations, with the CDRE Gilmore exercising command from the USN guided missile cruiser USS ANTIETAM, which also performed the role of flagship during April and May 2005, and then from sister ship, USS NORMANDY, from June until August. At any one time there were up to 1,700 sailors and marines under the command of CTF-58.

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The opportunity to provide Australian leadership of such a significant coalition task force, engaged in vital operations in a dynamic and more challenging environment, has been a career highlight for the 15 RAN personnel. It has also been of considerable importance to the RAN, reflecting the enviable reputation it has as a world class Navy able to fight and win at sea.
MATCH
SEVENTH ANZAC FLIES WHITE ENSIGN
The seventh Anzac Class Frigate, HMAS TOOWOOMBA, is the latest Australian warship to join the Royal Australian Navy’s operational Fleet following a traditional commissioning ceremony in Brisbane on 8 October 2005.

Defence Minister Robert Hill said HMAS TOOWOOMBA is one of eight state-of-the-art warships built for Australia under the Government’s $7 billion Anzac Ship project.

Senator Hill said HMAS TOOWOOMBA is now fully operational and capable of defending Australian waters and being deployed on overseas operations, such as the fight against terrorism. It will commence operations in December and be home-ported in Perth.

“The Anzacs frigates have proven their worth in operations in the Persian Gulf, off the north coast of Australia and in Antarctic waters,” Senator Hill said. “The Anzacs have provided a major capability boost for Navy and have been delivered on schedule and on cost.”

HMAS TOOWOOMBA is equipped with advanced air surveillance radars, leading edge Combat Management System as well as the latest communications, navigation and fire control systems.

“It is armed with a five inch gun capable of firing 20 rounds per minute, ship launched torpedoes and the Evolved Seasparrow missile launched from its Vertical Launching System.”

Senator Hill congratulated Tenix on successfully building all eight Anzac frigates at Williamstown, Victoria, and the Defence Materiel Organisation on reaching this important milestone.

The 8 October ceremony was the culmination of Navy Week celebrations in Brisbane. The Christening Lady was Ms Judy Bliett who is the daughter of the late Lieutenant Commander Howard Goodwin the last Commanding Officer of HMAS MERULA.

The ceremony was attended by the Vice-Chief of the Defence Force Lieutenant General Ken Gillespie, the Chief of Navy Vice-Admiral Russ Shalder and the Maritime Commander Rear Admiral Davyd Thomas. The ship’s Commission was read by the Commanding Officer, Commander Gregory Sammut.

“The formal acceptance of a warship is a proud occasion for the Navy and today is no exception,” Commander Sammut said. “It is a special privilege to be involved in the Commissioning and I am especially honoured to command the Commissioning Crew. I am confident HMAS TOOWOOMBA will serve Australia with distinction for many years to come.”

HMAS TOOWOOMBA is 118 metres long, displaces 3,600 tonnes and has a crew of more than 170 personnel, and includes a Seaplane helicopter capability.

The seventh Anzac Class Frigate, HMAS TOOWOOMBA, and her crew pose for a commissioning photo on 8 October 2005 in Brisbane. (RAN)

FIRST FFG DECOMMISSIONED
HMAS CANBERRA has become the first Adelaide class Guided Missile Frigate (FFG) to be decommissioned from the Navy after proudly serving her country for 24 years.

Defence Minister Robert Hill joined Maritime Commander Rear Admiral Davyd Thomas and the ship’s Commanding Officer Commander Ray Leggatt to officially farewell the ship in a traditional ceremony at Fleet Base West, south of Perth on 12 November 2005.

HMAS CANBERRA has sailed nearly 800,000 miles serving Australia, and has seen active service in the Persian Gulf and conducted operations in areas as diverse as the Southern Ocean and the Solomon Islands, east of Africa and south of Russia.

Senator Hill said the Government has decided to offer the ship to be sunk and used as a future diving attraction off the coast of Australia.

“Decommissioned ships SWAN, PERTH, HOBART and BRISBANE which have been sunk off the Australian coast have proven to be an economic and tourism boom by creating great dive sites,” Senator Hill said.

“The dive sites have attracted valuable tourism and recreation income benefiting the nearby communities of Dunsborough and Albany in WA, Yankalilla Bay on the Southern Fleurieu Peninsula of SA and the Sunshine Coast in Queensland.

“If sunk, HMAS CANBERRA would continue to provide a valuable contribution to the Australian community in a fitting way by continuing her association with the sea.”

Mrs Jenny Moor was the Guest of Honour for the decommissioning. Mrs Moor is the daughter of the late Lady Marjorie Tange, who was HMAS CANBERRA’s Launching Lady and the wife of the then Secretary of the Australian Department of Defence, the late Sir Arthur Tange.

“It is a sad but special day when a ship decommissions, however, since I have been the Commanding Officer I have been honoured to serve with such a fine crew and I consider this one of the proudest days of my life,” Commander Leggatt said.

HMAS CANBERRA is 138 metres long, displaces 4,100 tonnes and had a crew of 210 including helicopter aircrew and maintainers.

HMAS CANBERRA was one of the first RAN ships to be powered by gas turbine for its main propulsion, which provided the ability to be underway from cold in less than 30 minutes. She had the capability to carry up to two Seahawk helicopters.

HMAS CANBERRA was the second of six Adelaide class Guided Missile Frigates (FFG) but the first to be decommissioned. Launched on 1 December 1978 at Todd Pacific Shipyard Corporation in Seattle, USA, HMAS CANBERRA was commissioned on 21 March 1981.

HMAS CANBERRA participated in a number of operations, including Operation DAMASK following the Iraq invasion of Kuwait (November 1990 to March 1993), Operation BRANCARD to evacuate Australian Nationals from Jakarta (May 1998) and Operation SLIPPER (March to July 2002) as part of the International Coalition Against Terrorism.

HMAS CANBERRA is the second RAN ship to bear the name. HMAS CANBERRA I, a County class Heavy Cruiser, was commissioned on 9 October 1941 as one of the 60 Bathurst-class Minesweeping Corvettes. The ship served with distinction during World War II and is known for rescuing 42 survivors from the bombed merchant ship MERULA and for attacking a German submarine during Operation BRANCARD to evacuate Australian Nationals from Jakarta (May 1998) and Operation SLIPPER (March to July 2002) as part of the International Coalition Against Terrorism.

HMAS CANBERRA I, the United States commissioned the USS CANBERRA, the only US ship ever to be named after a capital city outside the United States of America.
HATCH, MATCH & DISPATCH

MATCH

SEVENTH ANZAC FLIES WHITE ENSIGN

The seventh Anzac Class Frigate, HMAS TOOWOOMBA, is the latest Australian warship to join the Royal Australian Navy’s operational Fleet following a traditional commissioning ceremony in Brisbane on 8 October 2005. Defence Minister Robert Hill said HMAS TOOWOOMBA is one of eight state-of-the-art warships built for Australia under the Government’s $7 billion Anzac Ship project.

Senator Hill said HMAS TOOWOOMBA is now fully operational and capable of defending Australian waters and being deployed on overseas operations, such as the fight against terrorism. It will commence operations in December and be home-ported in Perth.

“The Anzacs frigates have proven their worth in operations in the Persian Gulf, off the north coast of Australia and in Antarctic waters,” Senator Hill said. “The Anzacs have provided a major capability boost for Navy and have been delivered on schedule and on cost.”

“HMAS TOOWOOMBA is equipped with advanced air surveillance radars, leading edge Combat Management System as well as the latest communications, navigation and fire control systems.”

“It is armed with a five inch gun capable of firing 20 rounds per minute, ship launched torpedoes and the Evolved SeaSparrow missile launched from its Vertical Launching System.”

Senator Hill congratulated Tenix on successfully building all eight Anzac frigates at Williamstown, Victoria, and the Defence Materiel Organization on reaching this important milestone.

The 8 October ceremony was the culmination of Navy Week celebrations in Brisbane. The Christening Lady was Ms Judy Blixt who is the daughter of the late Lieutenant Commander Howard Goodwin the last Commanding Officer of Defence Materiel Organization on reaching this important milestone.

The ceremony was attended by the Vice-Chief of the Defence Force Lieutenant General Ken Gillespie, the Chief of Navy Vice Admiral Russ Shalders and the Maritime Commander Rear Admiral Davyd Thomas. The ship’s Commission was read by the Commanding Officer, Commander Gregory Sammut.

“The formal acceptance of a warship is a proud occasion for the Navy and today is no exception,” Commander Sammut said. “It is a special privilege to be involved in the Commissioning and I am especially honoured to command the Commissioning Crew. I am confident HMAS TOOWOOMBA will serve Australia with distinction for many years to come.”

HMAS TOOWOOMBA is 118 metres long, displaces 3,600 tonnes and has a crew of more than 170 personnel, and includes a Seaplane helicopter capability.

HMAS TOOWOOMBA is the second RAN warship to bear the name after the Queensland city of Toowoomba. The first HMAS TOOWOOMBA was commissioned on 9 October 1941 as one of the 60 Bathurst-class Minesweeping Corvettes. The ship served with distinction during World War II and is known for rescuing 42 survivors from the bombed merchant ship MERULA and for attacking a German submarine during Persian Gulf convoy escort duty.

HMAS TOOWOOMBA I’s Battle Honours will be carried with pride by the ship. The final Anzac ship, NUSHIP PERTH, is expected to be commissioned in September 2006.

DISPATCH

The seventh Anzac Class Frigate, HMAS TOOWOOMBA, and her crew pose for a commissioning photo on 8 October 2005 in Brisbane. (RAN)

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HMAS CANBERRA’s crew march off their ship to assemble on the dock for the decommissioning ceremony. Lunch is on 1 December 1978 at Todd Pacific Shipyard Corporation in Seattle, USA. HMAS CANBERRA was commissioned on 21 March 1981. (RAN)

HMAS CANBERRA at sea during her career. CANBERRA sailed nearly 800,000 miles serving Australia, and saw active service right around the globe. The ship was to be sunk and used as a future diving attraction off the Australian coast. (RAN)

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HATCH, MATCH & DISPATCH

The seventh Anzac Class Frigate, HMAS TOOWOOMBA, and her crew pose for a commissioning photo on 8 October 2005 in Brisbane. (RAN)
PRODUCT REVIEW

NAVAL EDGE WEAPONS IN THE AGE OF FIGHTING SAIL
By Sarah C Wolfe
Publ: Chatham Publishing
Reviewed by Joe Struczek

Naval combat during the era of fighting sail was more often resolved by hand-to-hand fighting than gunnery shells. During these ship borne melee the main weapons were swords, cutlasses, axes and pikes. Whilst much has been written about the battles of this period little has been produced on these weapons. Those books which have been produced have invariably been of a type aimed at collectors. Providing detailed information on specific weapons, designs, etc. Sarah Wolfe on the other hand has produced a book which, whilst providing details on the weapons, also demonstrates their use by briefly examining various engagements. Whilst the book is titled Naval Edge Weapons in the Age of Fighting Sail it is predominantly Anglo-American centric. There is no coverage of weapons from either the Middle East or Asian countries. However, that the lack of coverage of these regions does not detract from the overall presentation of the book. Ms Wolfe has produced a book which, in only 120 pages, provides a wealth of information on the naval edged weapons. The book concentrates on the period from the American Revolution through to 1865, the end of the US Civil War. Wolfe on the other hand has produced a book which, whilst detailed information on specific weapons, designs, etc. Sarah Wolfe's book is not, nor does it pretend to be, a bible on the subject but it is a very good introduction and a useful general bibliography provides a wealth of reference material for officers' swords, including presentation swords, and the weapons used by enlisted men and officers in the period. Wolfe has researched the human and outcomes of these determined submariners and the treacherous Great Barrier Reef, armed with faulty torpedoes. Regardless of whether you are a proud Queenslander, the role that USNIP, 2004

THE NAVY AND THE NATION: THE INFLUENCE OF THE NAVY ON MODERN AUSTRALIA
Edited by Dr Donald Evans and Dr John Reeve
Published by Allen & Unwin
ISBN: 1741142068
50 B&W photos
464 pages

The Navy and the Nation is the story of the Royal Australian Navy focusing on the contribution of the RAN in peace and war. From an early age, every Australian is taught the significance of Gallipoli and the Anzac legend. This, however, is but one dimension of the military's impact on our nation's coming of age. Australia, after all, is an island. It was the Navy which explored and founded European Australia, and it is the Navy which has ever since been critical to our national security.

With its ancestry in the Royal Navy and the former colony-based navies, the Australian Navy was established in 1901. Since that time it has helped Australia enter the international community as a modern, self-reliant nation and has been indispensable in protecting Australia's sovereignty and national interests.

Despite the Navy being one of Australia's oldest and most important institutions, the links between nation-building and the Navy have never before received detailed study. Bringing together scholars from Australia and overseas, The Navy and the Nation examines the extent of the Navy's contribution to our national development. It shows, too, how the Navy has played a vital role in defining our independent national identity.

The essays presented in the book originated from the RAN's SeaPower Centre's 2003 King Hall History Conference held in Canberra. It contains 19 chapters each dealing with a separate part of the Navy and Australia's shared history.

This book is highly recommended and will make a fitting addition to the growing collection of King Hall conference publications.

HMS VICTORY: WARSHERPS OF THE ROYAL NAVY
By lain Ballantyne and Jonathan Eastland
Published by Pen and Sword
ISBN: 1844152936
Price: £19.99
Hardback 240 Pages
Email: enquiries@pen-and-sword.co.uk
Website: www.pen-and-sword.co.uk

There is no more illustrious warship name in British naval history than HMS VICTORY, which is inextricably linked with Admiral Lord Nelson and the Battle of Trafalgar. This fascinating book celebrates all three at a most appropriate moment – the 200th anniversary of Nelson's greatest triumph and his death in HMS VICTORY. What is less well known is that six warships before Nelson's carried the name VICTORY, the first being Sir John Hawkins' during the Battle of the Armada in 1588, which sailed from Plymouth to battle the Spanish.

All manner of maritime life is included in this book, from piracy in the Azores to gentlemanly encounters between fleets as well as the battle of annihilation that was Trafalgar. The full horror, majesty and thunder of naval warfare in the age of fighting sail is revealed through the first-hand accounts of those who were there. The post-Trafalgar career of VICTORY is studied, continuing to the present, for she is still in commission, as flagship of the Second Sea Lord.

Superbly illustrated, well researched and written by two leading naval experts, HMS VICTORY will be enjoyed by all those for whom naval heritage and the 'Immortal Memory' of Nelson, his ship and achievements hold a fascination.

AT THE DRAGON'S GATE: WITH THE OSS IN THE FAR EAST
By Charles Fenn
UNIPEX 2004
Reviewed by Joe Struczek

In the China- Burma-India theatre the British SOE, American OSS, French FMM, Chinese Nationalists, Chinese Communist all with each other in the secret war against not only the Japanese, but also each other. Add to this, Vietnamese and other Asian nationalists groups, bandits and pirates and you have an environment where life would be anything but dull. Into this world stepped Charles Fenn.

Before the outbreak of the war Charles Fenn was a Far East correspondent for the American magazine, Life. He travelled widely and gained a unique insight into life in an area of the world which, at that time, was terra incognita to most westerners. During the war he was commissioned as a Lieutenant in the USMC and, in 1943, assigned to the OSS. With his background in China Fenn was assigned to that theatre of operations. Fenn bought an interesting approach to many of the problems faced in what can best be described as the 'Wild West of combat theatres'.

Having originally been assigned to the OSS for propaganda work, Fenn was subsequently assigned to work with the AGAS – Air Ground Air Services where he was responsible for organizing the rescue of downed pilots and liaison with prisoners of war.

At the Dragon's Gate is Charles Fenn's story of his service and experiences in China during the second half of World War II. This book reads like an adventure novel and provides a unique and useful insight into the day-to-day life in that part of the world during the war. Fenn also describes his encounters with such people as Ho Chi Minh.

Fenn provides valuable insights into the attitude of his fellow officers towards the Chinese. In a number of cases it is clear that some Americans held the Chinese in very low regard and this attitude impacted on the level of co-operation between the two allies.

Only a small number of books have been written by those who participated in operations in China during World War II and hardly any by OSS personnel. At the Dragon's Gate goes a long way to help redress this problem and is strongly recommended not only to those with an interest in intelligence history but also those who wish for an insight into how Americans lived and operated in China during the war years.

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**U.S. SUBMARINES DOWN UNDER**

Brisbane 1942 - 1945
By David Jones and Peter Nunan
Naval Institute Press, 2005
Hardcover 297 pp Illustrated
Reviewed by Paul D. Johnston

The small wharf at New Farm on the Brisbane River became the biggest submarine base in Australia and one of the biggest in the South West Pacific. As one USN Officer remarked the base they were building at Brisbane is going to make Sub Base Pearl (Harbor) look like a farmers garage.

As a Brisbanean this secret role was only brought back to the attention of the public when the former submarine wharves at New Farm where recently demolished to provide modern millionaire view high rise. At times up to 2,000 US sailors occupied the base. This was further combined with boats unsuited for the Brisbane River whom often conducted extensive repairs of the former submarine wharves. There is little doubt of the significant role that US submarines played a vital role in defining our independent national identity.

Despite the Navy being one of Australia's oldest and most important institutions, the links between nation-building and the Navy have never before received detailed study. Bringing together scholars from Australia and overseas, The Navy and the Nation examines the extent of the Navy's contribution to our national development. It shows, too, how the Navy has played a vital role in defining our independent national identity.

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Australia has often been described as a nation shaped by war. From an early age, every Australian is taught the significance of Gallipoli and the Anzac legend. This, however, is but one dimension of the military’s impact on our nation’s coming of age. Australia, after all, is an island. It was the Navy which explored and founded European Australia, and it is the Navy which has ever since been critical to our national security.

With its ancestry in the Royal Navy and the former colony-based navies, the Australian Navy was established in 1901. Since that time it has helped Australia enter the international community as a modern, self-reliant nation and has been indispensable in protecting Australia’s sovereignty and national interests.

This book is highly recommended and will make a fitting addition to the growing collection of King Hall conference publications.
The strategic background to Australia's security has changed in recent decades and in some respects become more uncertain. The League believes it is essential that Australia develops the capability to defend itself, paying particular attention to maritime defence. Australia is, of geographical necessity, a maritime nation whose prosperity and safety depend to a great extent on the security of the surrounding ocean and island areas, and on submarine trade.

The Navy League:

- Believes Australia can be defended against attack by other than a super or 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 to our allies.
- Supports the ANZUS Treaty and the future reintegration of New Zealand as a full partner.
- Urges a close relationship with the nearer ASEAN countries, PNG and the Island States of the South Pacific.
- Advocates the acquisition of the most modern armaments, surveillance systems and sensors to ensure that the ADF maintains some technological advantages over forces in our general area.
- Supports the acquisition of unmanned aircraft such as the GLOBAL HAWK and UCAVs.
- Believes there must be a significant deterrent element in the ADF capable of powerful retaliation at considerable distances from Australia.
- Believes the ADF must have the capability to protect essential shipping at considerable distances from Australia, as well as in coastal waters.
- Supports the concept of a strong modern Air Force and highly mobile Army, capable of island and jungle warfare as well as the defence of Northern Australia and with the requisite skills and equipment to play its part in combating terrorism.
- Advocates that a proportion of the projected new fighters for the ADF be of the STOVL version to enable operation from suitable ships and minor airfields to support overseas deployments.
- Supports the development of amphibious forces to ensure the security of our offshore territories and to enable assistance to be provided by sea as well as by air to friendly island states in our area and to allies.
- Endorses the control of Coastal Surveillance by the defence force and the development of the capability for patrol and surveillance of the ocean areas all around the Australian coast and island territories, including the Southern Ocean.
- Advocates measures to foster a build-up of Australian-owned shipping to ensure the carriage of essential cargoes in war.

As to the RAN, the League:

- Supports the concept of a Navy capable of effective action off both East and West coasts simultaneously and advocates a gradual build-up of the Fleet and its afloat support ships to ensure that, in conjunction with the RAAF, this can be achieved against any force which could be deployed in our general area.
- Is concerned that the offensive and defensive capability of the RAN has decreased markedly in recent decades and that with the paying-off of the DDGs, the Fleet lacks area air defence and has a reduced capability for support of ground forces.
- Advocates the very early acquisition of the projected Air Warfare Destroyers.
- Advocates the acquisition of long-range precision weapons and the capability of applying long-range precision fire to increase the present limited power projection, support and deterrent capability of the RAN.
- Advocates the acquisition at an early date of integrated air power in the fleet to ensure that ADF deployments can be fully defended and supported from the sea.
- Advocates that all Australian warships should be equipped with some form of defence against missiles.
- Advocates the future build-up of submarine strength to at least 8 vessels.
- Advocates that in any future submarine construction program all forms of propulsion be examined with a view to selecting the most advantageous operationally.
- Supports the maintenance and continuing development of a balanced fleet including a mine-countermeasures force, a hydrographic/oceanographic element, a patrol boat force capable of operating in severe sea states, and adequate afloat support vessels.
- Supports the development of defence industry supported by strong research and design organisations capable of constructing and supporting all needed types of warships and support vessels.
- Advocates the retention in a Reserve Fleet of Naval vessels of potential value in defence emergency.
- Supports the maintenance of a strong Naval Reserve to help crew vessels and aircraft in reserve, or taken up for service, and for specialised tasks in time of defence emergency.
- Supports the maintenance of a strong Australian Navy Cadets organisation.

The League:

Calls for a bipartisan political approach to national defence with a commitment to a steady long-term build-up in our national 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.
HMAS ANZAC in company with the new Indian Navy frigate INS TABAR in the Indian Ocean. ANZAC was returning home after participating in the Trafalgar 200th anniversary Fleet Review off Portsmouth in the UK. (RAN)

HMAS PARRAMATTA (background) acts as plane guard and goalkeeper to the USN Nimitz class carrier USS ABRAHAM LINCOLN as seen from the LINCOLN’s ‘island’. PARRAMATTA is currently in the Persian Gulf having relieved HMAS NEWCASTLE. (USN)
HMAS CANBERRA sails into Fleet Base West for the last time flying her commissioning pennant from the main mast. (RAN)

“Oh how the mighty have fallen”. This once potent FA-2 Sea Harrier now stands as a static gate sentry to the Royal Navy’s Yeovilton Naval Air Station. The RN is retiring the air superiority Sea Harrier early to make way for the ground attack/strike GR-9 Harrier.