Chinese visitors to Sydney, May 1998. From top: guided missile destroyer QINGDAO, replenishment ship NANCANG and training ship SHICHANG, arriving on 4 May. (Photos - B. Morrison)

In this ISSUE

The Navy Number 3, 1998 is a post-purri's news and articles from the World's Navies.

Most recently for Australia, the first ever Peoples Liberation Army - Navy (PLA-N) Task Group visit was successfully undertaken in Sydney during the early part of May. This edition also features a special new Vietnam feature, including a post Defence White Paper commentary, the veteran Westland Wasp Helicopter Story and an update on the 'new' interim SH-2F Seaplanes, which are now flying.

An 'oldtimer' making a comeback into Australian military service in the Lighter Amphibious Re-supply Cargo Mk IV more commonly referred to as the LARC-V; a number of the 30-year-old Warf watercraft are being updated for service aboard the RAN's two modernised LPDs KANIMBLA and MANDORA. This report also includes the latest RAN photographs of the modernised MANDORA.

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THE AUSTRALIAN SHIPOWNERS' ASSOCIATION
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THE NAVY

Viewpoint

The Navy League of Australia.

The Navy

During August 1998, the Naval Air Station, HMAS ALBATROSS will set the scene with a major 50th Anniversary Air Day, with dozens of aircraft and helicopters expected on show. The display will span five decades of Naval Aviation, with numerous flying, museum and static displays.

The new Combat Fleets of the World 1998-99 naval reference book is expected to be available in local bookshops from July-August. Spanning 1220 pages, the 1998-99 edition includes more than 4750 photographs and line drawings. This year, for the first time, a CD-ROM version is available. A full review appears in this issue of The Navy.

Ross Gillett

THE NAVY

The operators in overseas engagements in The Navy are being provided with this reference book of the modernised MANDORA, which was undertook in Sydney during the early part of May.

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The Navy League of Australia.

Chinese visitors to Sydney, May 1998. From top: guided missile destroyer QINGDAO, replenishment ship NANCANG and training ship SHICHANG, arriving on 4 May. (Photos - B. Morrison)

Front cover: The Royal Australian Navy’s second Anzac class frigate, ARUNTA, on trials in Port Phillip, early 1998. (Photo - Naval Photo Unit)
FROM OUR READERS

By Gary Hamer

In reply to the article in the January-March, 1998 edition concerning the fate of the former minehunter CURLEW, I forward some additional information.

The old mine warfare vessel was saved from the scrap merchants about 14 months ago by myself, an ex-submariner. Purchased for $40,000, CURLEW is currently berthed at the Woolwich Marina in Sydney, undergoing repairs before heading to Hobart, Tasmania in June or July.

The work to restore the vessel to her original condition is a labour of love and determination, as a fine example of original condition is a labour of love and preservation. The arguments by bureaucrats and politicians against the cost of preservation are spurious when you consider the millions they have spent on Old Parliament House as a national shrine to "hot air". Doubtless, the same arguments were mooted against preserving RMS VICTORY, until overwhelming public opinion saved her from being scrapped.

VICTORY remains the flagship of the C-in-C Portsmouth to this day and millions of tourists have visited her. How many would have dived to her sunken wreck?

The Americans have been keen to conserve examples of old warships, but the RAN has shown little interest in its old ships, while our governments show even less concern.

D. G. Giger
ROCKINGHAM 6168

Preserving Warships

Dear Sir,

I must agree with Mr. Genge (The Navy, January-March, 1998) regarding the preservation of our warships.

The class of frigate as exemplified by HMAS SWAN and variants was the most successful class of warship in modern times and should therefore be carefully preserved for future generations. The arguments by bureaucrats and politicians against the cost of preservation are spurious when you consider the millions they have spent on Old Parliament House as a national shrine to "hot air". Doubtless, the same arguments were mooted against preserving RMS VICTORY, until overwhelming public opinion saved her from being scrapped.

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Navy needs major modernisation urgently

By Navy Leaguer

For some five years now, the RAN has been pressing to have its six Adelaide class FFGs upgraded.

The need for this was confirmed by an analysis of the new generation types of missile either already on the market or expected to become available over the next few years. The analysts then made an estimate of the number of missiles and launching vehicles (ships, submarines, helicopters and fixed wing aircraft) expected to be in service in the region. From this, the quality of defence likely to be required by the RAN and the class by which that defence should be provided to keep these ships combat worthy in our broader region was determined.

The primary purpose of this upgrade is to provide the ships with an effective self defence system against the new generation of anti-ship missiles. For some time, there has been no way to do this has been clear in principle. A new type of missile and launching system must be provided. The new missile must be integrated into the ship's combat system. Improved sensors must be provided. Technological advances will enable this.

Largely in parallel with the plans to upgrade the FFGs, the RAN began planning to improve the war fighting capabilities of the eight ANZAC class frigates then under construction for the RAN.

This would take advantage of the foresight which saw substantial room for additional capabilities designed into the ANZAC class. It was planned to retrofit some of the earlier ships with these improved war fighting capabilities and to build the capabilities into the later ships whilst they were still building.

The first part of the improvements, involving modern surface warfare, are comparatively straightforward. Final details have been resolved. Detailed contract negotiations are underway with the ship's builders (Tenix Defence Systems). Harpoon missile launching equipment, a torpedo decoy system and a mine avoidance sonar will be installed.

The second part of the improvements is proving much more difficult, providing the ANZAC class with a much more comprehensive anti-air warfare capability operated over a wide range of missile types. Some of these are marginally more effective than those used for our basic comparison.

The worrying factor is that the first upgraded FFG will not even start trials until two years after the first regional surface combatant with new generation anti-ship missiles enters service. The FFG upgrade project has undergone a long series of examinations and re-examinations. The successive changes in capabilities, designs and plans for implementation of the upgrade give the outside observer the impression of notching up over capacity needs with the need to get the design and capability right being pushed down in a wish to get the paper process right.

The Anzac war fighting improvement program AAW phase gives the same impression. A study has been followed by another study. The fact is that the space limitations and other factors limit the degree of upgrading of the FFGs.

Due to the flexibility of their design, the opportunities for improvement of the Anzacs are much greater.

However, the RAN will not have the AAW improved Anzacs until at least two years after the FFGs. That is until some five years after the Mach 2.5 class of missile enters operational service with a regional power.

If the FFG upgrade and Anzac war fighting improvement program had proceeded smoothly, the RAN would not be in the position of receiving these vital new capabilities until five years after we may need this defence.

However, that is not to be. This and similar delays will continue to occur until it is recognised that it is more important to get the ships right than it is to get the paper process right.

The Navy (Photo - BILL WILSON)

Singapore Naval Base, prior to handover to ANZUK. On the right is HMAS SWAN, with a Royal Fleet Auxiliary on the left. (Photo - Bill Wilson)

THE NAVY

HMAS SWAN (Photo - John Mortimer)
A Warm ...But Wet...Welcome to the PLA-N
By Graham Davis

More than 1000 people, many from the local Chinese community, braved leaden skies to provide a warm welcome to Sydney to three ships of the Peoples Liberation Army Navy. In May it was the first ever visit to Australia by the PLA-N. Shouting “welcome, welcome” in Mandarin and Cantonese, the crowd, many of them children, lined Fleet Base East to greet the two-year-old guided missile destroyer QINGDAO (CAPT Fu Guosen), the replenishment ship NANCANG (CAPT Liang Wang) and the training ship cum helicopter carrier SHICHANG (JMDR Yoo Lijang). The three ships were manned by 678 officers and sailors.

Abroad the destroyer was Rear Admiral Han Fangjun the Deputy Commander of the PLA-N North Sea Fleet, while RADM Qi Jichun, the deputy commander of the Dalian Naval Academy was embarked in SHICANG.

As the three light grey painted ships inched towards the wharf, the RAN band struck up. Fireworks were decorated and two Chinese lion dragons began to dance. Chinese and Australian flags were waved and a large banner declaring “Warmest Welcome” in Cantonese and Australian spread before the public viewing area.

On a four day visit to Australia and arriving from New Zealand, the trio of warships was met by the 4730 tonne guided missile destroyer HMAS HOBART (CDMR Simon Woorlych). HOBART met the ships just off Sydney Heads and led them, in line astern formation, to the Fleet Base East. As the trio approached the Hornby Light the large Chinese ship fired off a salute. The Sirius Battery on South Head responded.

Inside the harbour the four ships were met by the high speed diving craft SEAL of AUDIT One carrying a press contingent of 50 local and overseas linked newspapers.

Overhead three media helicopters videotaped the ships every move. Off Bradley Head the visitors were met by an escort of NSW and HMAS Water Policing launches and Defence Maritime Services and civil service tugs.

The presence of three unfamiliar ships, with hundreds of blue uniformed sailors and cream garbed marines lining their decks, attracted much interest among foreshore residents and ferry commuters. The 0800 passage up Sydney Harbour was carried out in sunny conditions but by 0900 heavy cloud had begun to appear in the southern skies. QINGDAO berthed just after 0900 where the RAN band, the Sydney Standing Guard and a large group of RAN officers waited. They were led by the Maritime Commander Australia, RADM Chris Ritchie. With the gangway landed, RADM Fangjun moved to the wharf where he was met by RADM Ritchie, the Chinese Ambassador to Australia and Consul to Sydney and several women from the local Chinese community.

With the guard commander inviting the RADM, in Mandarin, to review the guard, the senior Chinese officer moved through the lines of young men and women sailors followed closely by news crews whose images were soon be transmitted across Australia and the globe. RADM Fangjun moved to the dais where he declared RADM Ritchie “On Ying” declared the Australian officer, which translated said “welcome to Australia.”

“IT is a great pleasure to welcome you here.” He said the visit by the Chinese ships was a first and was an “historic occasion.”

RADM Ritchie told the large crowd of the visit by Australian ships to China last year and the hospitality and welcome their crew had received.

“We hope that you will feel equally at home in Sydney.” He said the Sydney visit reflected the bilateral relations between the two nations. “Your visit will strengthen the bonds.”

RADM Ritchie said the visitors and Australians would exchange the “professional views of sailors.”

We also look forward to sporting competition. You are all very welcome. Thank you for bringing these very fine ships to Sydney.”

The Australian officer concluded.

In response RADM Fangjun said “We are honoured to pay this friendly visit to Australia. We have received a very warm welcome. Thank you.”

The press conference concluded.

The Chinese training ship ‘heads home’ after a successful four day visit. (Photo - LSPH Simon Metcalf)

PLA-N sailors with ABSCO Michael Davidson, aboard QINGDAO (Photo - LSPH Steve Gurnett)

When the weather turned 'bad', the crew's reception moved indoors. (RAN)
STATEMENT OF POLICY

The Navy League Of Australia

The strategic background to Australia’s security has changed and in some respects become more uncertain. The League believes that the essential security of Australia’s northern, sub-Antarctic waters and the sub-Antarctic islands depends on the development of a strong defence. The League believes that an effective deterrent is essential. The League believes that effective deterrents are provided by the Australia Defence Force (ADF), the Royal Australian Navy, and the Royal Australian Air Force, in that order of priority.

Naval Strategy

• The League believes that the essential security of Australia’s northern, sub-Antarctic waters and the Sub-Antarctic islands depends on the development of a strong defence.
• The League believes that an effective deterrent is essential.
• The League believes that effective deterrents are provided by the Australia Defence Force (ADF), the Royal Australian Navy, and the Royal Australian Air Force, in that order of priority.

The Navy League: • Believes Australia can be defended not only by air but also by sea, and that the government should provide a fleet of submarines to defend essential lines of 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.
• Supports the maintenance of a strong ADF capable of providing effective support for two task forces as well as the capacity to support operations in sub-Antarctic waters.
• Advocates the allocation of responsibility and, necessary resources, for Coastal Surveillance to the defence force.
• Advocates the acquisition of the most modern armaments and sensors for our small defence force to ensure that the ADF maintains some technological advantages over forces in our general area.
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• Advocates the acquisition of an additional 2 or 3 Collins-class submarines.
• Advocates the development of the mine-countermeasures force.
• Advocates the development of an amphibious force capable of providing effective support for the Royal Australian Navy, and the Royal Australian Air Force.

The Royal Australian Navy

• Advocates the development of amphibious forces capable of providing support for operation in sub-Antarctic waters.
• Advocates the acquisition of aircraft and the update of RAAF aircraft to ensure their capability to be fully defended and supported from the sea.
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Canada’s Naval Forces Adjunct Course

by Antony Prestong

In one sense there is no Canadian Navy, merely a naval element in the unified Canadian Forces of Maritime Command, but for convenience it will be referred to as the Canadian Navy in this survey. To complicate matters further, it is no longer known as the Royal Canadian Navy, but retains the privilege of naming its ships HMCS granted nearly 90 years ago. As a staunch NATO ally and a noted participant in United Nations peace-keeping activities for many years, Canada has borne a significant military burden, and the end of the cold war has inevitably weakened political support for the military. To put it succinctly, many of Canada’s politicians question the need for balanced forces, and so projects such as the replacement submarines are given a much lesser priority than, say, armed personnel. The former is ‘aggressive’, the other, related with peacekeeping and it is therefore affordable. The truth is that Canada will be much more influential in the post-cold-war world if she has a balance of credible forces.

This was well demonstrated in the Gulf Crisis in 1990-91, when Canadian naval units were able to share in coalition operations with comparative ease. Destroyer escorts were hurriedly upgraded with RGM-84 Harpoon missiles and Mk-13 Phalanx 20mm Gattings. The ships were also supported by Canadian support vessels. Strategically, the country has three maritime basins, the Atlantic and Pacific coastlines, and the Arctic. The land frontiers with the United States presents no more a cultural threat and is totally open. The internal problems of separatism in French-speaking Quebec seem unlikely to cause any change in overall defence strategy. The country has three maritime basins, the Atlantic and Pacific coastlines, and the Arctic. The land frontiers with the United States presents no more a cultural threat and is totally open. The internal problems of separatism in French-speaking Quebec seem unlikely to cause any change in overall defence strategy. Even if the ‘nightmare scenario’ of Quebec’s secession happens, the majority of French-Canadians show little interest in acquiring a navy, indeed, comparatively few French-Canadians appear to show much interest in joining the Navy.

The naval elements of the Canadian Forces can, therefore, be very grateful that the Soviet Union was considered in not collapsing before the Patrol Frigate programme was well advanced. This had provided 12 City class ships, well equipped for anti-submarine warfare (ASW) and anti-surface warfare (ASuW) over a period of ten years. The last, HMCS OTTAWA, was delivered last year by Saint John Shipbuilding. Also delivered in the early 1990s were four Tribal class destroyers, which replaced the four Oman Class anti-air defence ships (DDGs). The two Annapolis class destroyer escorts (DDES) and the two similar Improved Restigouche class will be gone by 2002.

The oldest operational destroyer in the Canadian fleet, the improved Restigouche class destroyer HMCS TERRA NOVA, was placed in ‘extended readiness’ status in Halifax in July 1997. The specialised diving support ship HMCS KORPORANT, a former Italian trawler acquired in 1973, was decommissioned after 19 years service, also having been declared surplus to requirements. Plans to build another four DDG variants of the City design have been dropped, and it is hoped to upgrade four (presumably the oldest) two-month deployment in the Southern Ocean. The land frontier with the United States presents no more a cultural threat and is totally open. The internal problems of separatism in French-speaking Quebec seem unlikely to cause any change in overall defence strategy. Even if the ‘nightmare scenario’ of Quebec’s secession happens, the majority of French-Canadians show little interest in acquiring a navy, indeed, comparatively few French-Canadians appear to show much interest in joining the Navy.

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The Republic of Singapore Navy (RSN) has launched the first of a new class of locally built Landing Ship Tank (LST) in Singapore. The ceremony held at the Singapore Technologies Marine, the lead ship was christened RSS ENDURANCE.

Construction of the lead ship began in early 1997, with the keel of the first vessel laid down on 26 March last year. On completion of outfitting and setting-to-work, ENDURANCE is planned to begin sea trials in November. Delivery to the RSN will follow in the first quarter of 1999, with the ship expected to become fully operational in 2000.

Accommodation is provided for a ships’ complement of 65 officers and crew (half that required aboard the old LSTs). Propulsion is provided by two Russian diesels driving independent shafts. Maximum range is in excess of 5,000 nm at a cruising speed of 15 kt.

Specifications:
- Length : 141 metres
- Beam: 21 metres
- Draft: 4 metres
- Speed : 15 knots
- Displacement: 6000 tonnes
- Complement : 65 officers and men

The new LST will be equipped with modern shipboard and combat equipment and systems including:

- An Integrated Navigation and Communication System to provide a centralised system for communication with various positions within the ship, other ships and shore units.
- An Integrated Bridge System manned by one operator who will control both the direction and speed of the ship. Presently in the older ships, it takes two persons to perform these tasks.
- A Gun Fire Control System, featuring a computerised system that calculates the direction and elevation of the gun barrel to increase probability of hits.
- A Naval Gun of 76 mm calibre.
- An Electro-Optic Director. This infrared vision device will be used to track targets.
- A self defence weapon based on the Mistral surface-to-air missile system.

The new ship’s armament includes an OTO Breda 76 mm Super Rapid gun forward, 0.5m gun and surface-to-air missiles.

The RSN’s fleet of new and old LSTs is operated by the 3rd Flotilla’s 191 Squadron. The vessels provide sea transportation for SAF personnel and equipment, deployed for overseas training duties. LSTs are also used for training cruises, as support ships, and during peacekeeping and relief efforts. As the ceremony, Dr Tony Tan Keng Yam, Deputy Prime Minister and Minister for Defence spoke about the new class:

“This morning’s launch of a new class of landing ship tank is another demonstration of both MINDEF’s and the Singapore Government’s commitment to ensuring that strong fundamentals and political stability remain the bedrock of our nation’s progress and prosperity. Singapore is a small country highly dependent on external trade for our survival. As such, external developments often have far-reaching implications for us. Our consistent policy has been to strengthen the fundamentals of defence, which underpin our country’s long-term competitiveness and security. With Singapore’s limited land resources, the SAF faces the constraint of limited training space for our soldiers, sailors and pilots. To enable realistic, rigorous and demanding training to be carried out, the SAF actively looks for suitable overseas training areas to offset local space constraints. For many years Landing Ship Tanks (LSTs) of the Republic of Singapore Navy (RSN) have been transporting personnel, aircraft and equipment for...
analyses of "Sea Spray" helicopters training costs. Important weapons support shortfalls range across about $90 million to correct Logistic deficiencies. Areas to years to help address vital capability and about $440 million across the next four years. Support Command. This equates to increased funding allocated $935 million. Support Command was some $20 million will be spent in from 84 percent in 1997-98 to 4/7-7-8. The increase in service for more than 50 years. Being larger and more complex, the existing ones will require significantly lower manpower and system maintenance requirements. As with their predecessors, the new LSTs will continue to provide support for the RNAs operational and training commitments, as well as act as sea training platforms for the Navy's midshipmen. The ships are capable of deploying to more ports and countries in the region and beyond as part of their training cruises. Such port calls have a significant role in extending and facilitating MINDEF's defence diplomacy. Such diplomacy helps to foster and enlarge bonds of friendship and mutual understanding.

DEFENCE BUDGET 1998-99

Chief of Navy, ADM D.B. Chalmers AG RN

The 1998-99 Defence budget of A$10.945 billion, announced by the Federal Treasurer, maintains the funding base at zero real growth - this outcome is in keeping with the Government's commitment to the level of Defence spending promised by the Prime Minister on his election in 1996. This allocation represents 1.9 percent of GDP (the same as in 1997-98). There will be an increase in total Commonwealth outlays (an increase in about $84 million). The new DRF (Defence Reform Programme) structure, my allocation for NHQ (Naval Headquarters) Maritime and Training Commands and all PNF/Reserves salaries is some $353 million. Support Command has been increased allocated $606 million for Navy Ship Operations. Overall these allocations equal the 1997-98 expected budget outcome.

A significant feature of this year's budget has been the increased funding allocated to specific Navy-related activities within Support Command. This equates to about $440 million across the next four years to help address vital capability and preparedness deficiencies. Areas to receive particular supplementary funding over the next four years include Naval Aviation (A$100 million), NHQ (A$80 million), and Ships and Support (A$60 million). The Defence Reform Programme is to reduce major expenditure gains in order to fund measures such as the Navs specified items identified above. For this budget, Navy's DRF savings target is about $400 million to be funded mainly from reductions in the total number of service personnel to accord with DRF outcome.

To achieve both the DRP aim and my objective for the HUNTER, must develop our workforce in the right time, in the right rank and with the right skills, and a sizeable boost to the local economy.

HMAS ANZAC Launch

On 4 May, the Governor of Western Australia, His Excellency General Sir Michael Jeffery AC, MC, participated in the HMAS ANZAC with the Navy League of Australia Perpetual Trophy. Accepting the award was the commanding officer of HMAS ANZAC, Captain MP Howard, CSC, RN, on behalf of the ship's company. ANZAC won this community award for 1997 from fierce competition from other Fleet units and shore establishments from around Australia. ANZAC's win sees the prestigious shield remain in the west as HMAS STIRLING won the trophy in 1996. ANZAC's nomination was for her heavy involvement with the Albany Children's Cancer Care Group, the ship's adopted charity. In an extraordinary effort since the ship's commissioning in May, 1996 more than $800,000 was raised in 12 months for the charity.

This money was raised through innovative fund raising activities including a sponsored "Shave off" which saw 60 ships go under the clippers from the previous commander officer down to main and female sailors. HAWKESBURY-Launched

The Royal Australian Navy's new coastal minehunter (MHC) HMAS HAWKESBURY was launched in NEWCASTLE on 24 April, 1998. HAWKESBURY is the second of a new class of HMC to be built by Australian Defence Industries at their Carrington yard and the second RAN warship to be named after the major river system, north of Sydney Harbour. In service the 720 tonne HAWKESBURY will be crewed by 36 officers and 120 others and carry a defensive armament of one 30mm gun. Her main role will be to counter hostile mines. Each Double Eagle will carry a disposable charge under the vehicle or be fitted with mechanical cutters to sever the wire holding the moored mines.

HAWKESBURY and her sisters will also embark mine clearance divers to operate to depths of 90 metres. The Royal Australian Navy's current mine countermeasures force comprises two Bay class inshore minehunters (commissioned 1986-87) and five auxiliary mineweepers, converted 1992 to 1994, after various commercial careers. All are homeported to HMAS WATERNET in Sydney Harbour.

The lead and namesake of the new MHC class, HUNTER, is expected to be commissioned into the RAN in December this year, followed by HAWKESBURY in late 1998. Other members of the class will also under construction include NORMAN, GASCOYNE, DIAMANTINA and YARRA.

Two views of the new MHC HAWKESBURY, before and after her launching on 24 April, 1998 (Photos: Brian Moriaty)
**Mr Bradford said it was important to also be aware that it was not just Whangarei taking dividends from the ANZAC project. "To date, the project has produced some $600 million worth of work for more than 200 New Zealand companies," he said.**

"The project has brought new skills, technology and contract experience to the companies involved. A greater awareness overseas is winning them a range of defence contracts overseas, most notably in Australia." Defence-related exports are now earning New Zealand some $70 million a year, much of the result of the expertise New Zealand companies have picked up from the ANZAC Ship project. Mr Bradford said he believed the Government would have to look carefully in the coming months at the issue of a replacement ship for HMAS ENDEAVOUR, which was due to retire in 2005.

"Logic says it should be another ANZAC class frigate, and if that option gets the go-ahead Whangarei can look forward to still more work after frigate 10 is complete," he said.

**SEAHAWK HELICOPTER UPGRADE CONTRACT**

The Minister for Defence, Mr Ian McLachlan, announced in late March that the contract for the upgrade of 18 Seahawk helicopters had been signed and to integrate forward looking infra-red, electronic support and countermeasures equipment for the Navy's sixteen Seahawk helicopters.

Mr McLachlan said the upgrade contract with Hawker de Havilland Victoria Ltd would provide a sensor suite to enhance the Seahawk helicopters, which operate from the Royal Australian Navy's sixteen Seahawk class frigates.

"The selected equipment will be fully integrated into the Seahawk's weapon system to provide a significantly improved ability to detect and identify potential threats, and to avoid or counter them," he said.

These new systems will operate over the horizon distances, in all weather conditions, day or night, at night and in low light levels and will aid the operator to more effectively task, load and assign targets to the RAN's AH-1S Cobra Attack helicopters.

Hawker de Havilland Victoria Ltd will be the prime contractor and will conduct most of the integration work in Australia. RML Systems in Melbourne will conduct much of the software integration for the helicopter's weapon system and modify the existing Advanced Torpedo System. CSC Australia will complete the modification of the Seahawk simulator in Nowra. Australian industry will also be involved in providing the through life support for most of the procured systems.

The contracted equipment is planned to be operational in the Seahawk helicopters by 2002.

**SECRETARY OF THE NAVY NAMES THIRD SEAWOLF SUBMARINE**

Secretary of the Navy John H. Dalton has announced his decision to name the third and final submarine of the class submarines. Secretary Dalton hosted Prime Minister John Howard at a naming ceremony for the submarine as there is in the world today.

Speaking during the ceremony at the Australian Submarine Corporation headquarters at Outer Harbour, the Minister referred to what he called "extraordinarily irresponsible" comments on the project.

"It is sometimes overlooked that the early F11 fighter aircraft was beset with problems, yet it turned out to be one of the greatest achievements in the history of aviation," Mr McLachlan said.

"We have a clear plan to bring these submarines into service in a proven operational capability which will be enhanced on a continuing basis." The Minister said that HMAS COLINS had been successfully deployed to Malaysia recently and that DECHAINEUX (launched last year) and DECHAINEUX joining their sister submarines.

The four redundant Upholder submarines will go to Canada as part of an eight-year leasing deal, which includes a basic training package to provide work for British industry, plus an option for the Canadians to purchase the submarines outright.

The three submarines of the Seaswolf class are the most capable, multi-mission submarines ever built. They combine speed, stealth, a large and varied weapons complement, plus an extensive suite of sensors to provide unlimited flexibility while operating "Forward. From the Sea." The ships have an overall length of 375 feet, a displacement of 1,700 tons and a crew size of approximately 130.

With mission and growth capability far beyond previous submarines, the robust design uniquely supports missions such as surveillance, intelligence collection, special warfare, covert cruise missile strike, anti-ship/anti-submarine and anti-surface ship warfare. In addition to its formidable open ocean presence, the Seaswolf class is also a highly capable deep ocean platform, setting the standard for submarine technology into the next century. Its inherent stealth, coupled with state-of-the-art sensors and advanced combat systems, make it the benchmark for underwater excellence.

JIMMY CARTER's flexibility and impressive capabilities provide the Navy with an undersea weapons platform to operate in any scenario against any threat — from under arctic ice to shallow water.

Armed with the battle-proven Tomahawk cruise missiles, JIMMY CARTER can be safely deployed as a deep strike platform, providing long-range tactical attack capability in the world for use against surface ships and submarines.

With twice as many torpedo tubes and a 30 per cent increase in weapons magazine size compared to the previous Los Angeles submarines, JIMMY CARTER will be efficiently capable of establishing and maintaining sea superiority.

**UPHOLDER SUBMARINES GO TO CANADA**

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The governments of Canada announced its intention, subject to final negotiations, to lease all four of the Upholder class submarines. An announcement by Prime Minister Brian Mulroney. Canada has chosen to acquire the submarines via a lease with an option to purchase at this is the most satisfactory solution to the problem.

In an arrangement worth some $10 million Canadian dollars to the UK, work will be generated for various UK companies in recreating the submarines and for GEC Marine at Barrow who will provide the technical and logistic support needed for the provision of training to Canada.

This arrangement represents the most practical and cost effective manner of securing the future of the submarines and is a strong indication of the close relationship between the UK and Canada.

**ROYAL YACHT GOES TO EDINBURGH**

The Royal Yacht BRITANNIA will be preserved in the Port of Leith in Edinburgh, British Defence Secretary George Robertson recently revealed.

Subject to satisfactory negotiations, BRITANNIA will be sold to an independent charitable trust being promoted by Forth Ports PLC. The trust will take responsibility for its preservation, and running it as a visitor attraction and venue for prestige conferences.

Mr Robertson said: "This has been an enormously difficult decision for me. Both Forth Ports and the Manchester Ship Canal Company offered extremely good, well thought out and detailed ideas. Either would have allowed BRITANNIA to be preserved successfully and with dignity."

I am grateful to both organisations for putting together such excellent proposals — but sadly there is only one BRITANNIA. It was particularly impressed by Edinburgh as both a city and as a 'living' entity by using her for prestige conferences, as well as the more traditional public display. I have considerable affection for Leith, which hosts many visiting ships, including a large number of Naval vessels, and is on balance the more appropriate resting place for this historic national asset."

BRITANNIA was expected to leave Edinburgh by September this year and, following essential work to adapt her to her new role, will be open to the public later in 1988.

**HMAS NEWCASTLE HELLFIRE PASS**

The Royal Australian Navy guided missile frigate (FFG), HMAS NEWCASTLE, sailed from the Fleet Base East on 27 March for a three month operation south east Asia. The deployment includes participation at the Hellfire Pass Memorial ceremony on the Burma Thailand Railway by Prime Minister John Howard on 24 April.

NEWCASTLE crew provided a fitting memorial to the memories of the 40 strong with a 40 strong and a catalogue play dressed in full ceremonial uniform.

Two weeks earlier NEWCASTLE had anchored at Djibouti, with a successful Southern Ocean operation resulting in the apprehension of a foreign fishing vessel alleged to have been operating illegally in the Exclusive Economic Zone off Heard Island.

HMCS NEWCASTLE rendezvoused with Darwin with the Western Australian based FFG. HMCS CANBERRA with both vessels participating in exercises with neighbouring Singaporean and Indonesian Navies.

**HMCS ORIOLE EPIC JOURNEY TO SOUTH PACIFIC**

The Canadian Navy's sail-training ship, HMCS ORIOLE has concluded her epic, 31,000-kilometre (17,000 nautical-mile) journey to Australia and New Zealand.

For the voyage, the navy's oldest commissioned vessel carried a mixed ship's company of 22 personnel, including 10 trainees. ORIOLE set sail 13 October and arrived seven months later, on 13 May, 1990.

The 15,000km route took the lurching yacht south to San Francisco California then west for 14 days to Pearl Harbor Hawaii south again to Palau Island, Kiribati Western Samoa. Fiji New Caledonia, and Lord Howe Island; arriving in Sydney, Australia, over Christmas.
THE NAVY

Commissioned in 1952, the 46-year-old vessel has seen duty throughout Asia and the Mediterranean, featuring a number of significant missions and operations. The ship has been called upon to provide support in various regions, including the Gulf War and Operation Enduring Freedom.

The remaining two PVs of the series will be commissioned later this year. COSCOM, having acquired two of the vessels, has laid them up in the Singapore Strait. The vessels will be used for training and operational exercises in the waters surrounding Singapore. COSCOM also operates Mine Countermeasures Vessels, inshore patrol boats, and diving support vessels.

Indian and Singaporean Navies in ASW Exercise

The Indian Navy (IN) and the Republic of Singapore Navy (RSN) conducted a twelve-day Anti-Submarine Warfare (ASW) exercise off Kochi (Cochin), South-west coast of India. The exercise was the fifth in the series of bilateral ASW exercises which started in 1994. A series of joint ASW training exercises was held in the northern Indian Ocean, the Arabian Sea, and the Gulf of Oman.

Search for the Monitor

Navy divers deployed for USS MONTIJOZ expedition. MONTIJOZ, 40 Navy divers, will work with the National Oceanic and Atmospheric Administration (NOAA) to search for the Monitor. The team will also recover artifacts as well as the ship’s rudder during the three-week mission.

Oversail of USS Nimitz

USNI NAVY goes to memorial association

Secretary of the Navy John H. Dalton signed the donation contract on 4 May officially transferring the historic battleship Missouri (BB 63) to the USS Missouri Memorial Association (MMA) of Honolulu, HI. The Association plans to tow the ship from Bremerton, Wash., to Hawaii in mid-May to transform it into a memorial museum at Pearl Harbor.

"I am pleased to see this transfer completed," commented Mr. Dalton. "I am confident that the Missouri Memorial Association and the people of the state of Hawaii will provide the battleship Missouri with the honored position in history that she holds." Prior to her final voyage across the Pacific Ocean, Missouri was towed to a mooring on the Columbia River at Astoria, Ore., where fresh water eliminated marine saltwater organisms that had accumulated on the ship’s hull over the years. The battleship was expected to arrive in her new home of Pearl Harbor by 22 June where Mighty Mo will be repainted and exhibited by the MMA into the Battleship Missouri Memorial, scheduled to open to the public in January 1999.

Missouri was commissioned on 11 June, 1944, and served her country from 1944 to 1955. In 1963, following her recommissioning and modernization, the ship was declared suitable for an additional six years to help provide for an expanded 600-ship Navy demonstrating global U.S. naval presence. Missouri is best remembered as a symbol of peace. It was on her teakwood deck on 7 September, 1945, that Gen. Douglas MacArthur officially accepted the formal "Instrument of Surrender" from the Japanese to end World War II.

The importance of her role as peacemaker was highlighted by her last operational mission when she visited Pearl Harbor in honor of the 50th year remembrance of those who died on 7 December, 1941. It was a rare sight to see the Arizona Memorial and Missouri, symbols of the "beginning and the end" of U.S. involvement in World War II, in the same port.

OVERHAUL OF USS NIMITZ

Newport News Shipbuilding has been awarded a contract by the U.S. Navy to perform refueling and overhaul work on the nuclear-powered aircraft carrier USS NIMITZ (CVN 68). The contract, valued at approximately $1.2 billion, was signed by Navy and Newport News Shipbuilding officials on 30 April, 1998. Nimitz, the lead ship of the class, is also the first of its class to undergo a major life-cycle milestone. The ship arrived in late May 1998, with the work performance period scheduled to last approximately 33 months. "This is a very significant contract for Newport News Shipbuilding," said NNS Vice President for Aircraft Carrier Programs Fellers. "We are looking forward to the ship returning to her birthplace for her one and only refueling in a 50-year life span.

In addition to the refueling of both of the ship's reactors, there will be significant modernization work. This includes a major upgrade of the island house that will ship the island removing the top two levels of the island house and replacing them. This action is driven by the installation of a new antenna mast that runs down along the island and will provide for better radar capabilities. The shipyard is also integrating a new radar tower aboard NIMITZ.

Maintenance and repair work will be performed below the ship's waterline to include the application of a new paint. In addition, the ship will be replacing nearly 3,000 valves and overhauling another 600 in various ship systems.

More than 3,200 Newport News Shipbuilding employees will be working aboard NIMITZ during peak periods of the overhaul and refueling project performance.

Nimitz was built by Newport News Shipbuilding. The ship's keel was laid on 22 June, 1968, the anniversary of the Battle of Midway. Christened on 27 November, 1968 by Mrs. Catherine Nimitz, daughter of the ship's namesake, Fleet Admiral Chester W. Nimitz, the ship was commissioned in 1975. Nimitz's first deployment began on July 7, 1976 when it departed Norfolk, Va., for the Mediterranean Sea.
OBSERVATIONS

From Geoffrey Evans
Sydney Inquiry

In August 1997 the Defence Minister requested the Defence Sub Committee of the Parliamentary Joint Committee on Foreign Affairs, Defence and Trade to investigate and report on the circumstances of the sinking of HMAS SYDNEY off the West Australian coast on 19 November 1942, with particular reference to:

- the extent to which all available archival material has been fully investigated and whether any relevant material has been misplaced or destroyed;
- all relevant archival material available from allied and former enemy forces; the desirability and practicability of conducting a search for the HMAS SYDNEY and the extent to which the Commonwealth Government should participate in such a search should one be deemed desirable and practical;
- the practicability of accurately locating the grave of an alleged body from HMAS SYDNEY which was allegedly buried on Christmas Island;
- the identification of any scientific procedures now available which could verify the identity of human remains alleged to be those of a crewman from HMAS SYDNEY buried on Christmas Island if and when such remains were located; and
- measures which should be taken to protect and honour the final resting place of the Elements, KNS SYDNEY and KSN KOROMAN.

The committee of inquiry formed to carry out the tasks received numerous submissions from relatives and other interested parties and arranged to have hearings in Canberra and several State capitols. From reports by survivors in "Australia in the War of 1939-45 - volume I Royal Australian Navy 1939-42") it is not likely the real reason why the writer spent several hours at

The ministerial press release announcing the inquiry - together with other consequential appointments did not say anything about resignations, simply that the appointments would take effect "on the date of retirement of their predecessors". The three outgoing officers, all of whom were thanked by the Minister for their distinguished service, were approaching the end of their previously announced terms of office.

The Waterfront

Whatever the outcome of the latest display of bitterness in the seemingly endless dispute between the Sydney waterfront and the Australian government, the struggle in which so far there have been no winners, the lost losses - not least the Australian community - the extensive publicity attached to the display (not to mention the legal costs to the participants) may possibly have created an atmosphere in which compromise can play a part. Or once media attention lapses will the public lose interest and allow a situation sapping Australia's well-being to continue?

The writer is certain that the HMAS SYDNEY was a casualty of war like a great many other warships and merchant ships and should be left undisturbed wherever its lie. One would not wish to see an Australian version of the Titanic disaster - a tragedy at the time and now a commercial money maker.

The ABC Reaches Back

From time to time ABC television promotions ads have shown a line of tallers against an HMAS BRISBANE background. The writer is reasonably sure that the "tallers" are in fact members of a sea cadet contingent he took back to Britain in 1952 to represent Australia at the 2nd Empire Training Cruise the last of its kind so far as the writer knows.

Despite a call to the ABC, the reason for a 1952 black and white photograph appearing on television in 1998 remains a mystery.

Misleading

On 7 April under the heading "Forces in turmoil as top brass resign" a Canberra correspondent of The Age newspaper reported the appointment of Vice Admiral Chris Barrie as the next Chief of the Defence Force, replacing General Baker who was due to retire. The article went on to say that the Chiefs of the Army and the Air Force had resigned because "it is understood that both men left the Australian Defence Force as a result of Admiral Barrie's appointment" (Admiral Barrie was appointed the AFDF and Security Service Chiefs were logical candidates for the top job). The ministerial press release announcing the appointment did not say anything about resignations. The writer was too busy with the memories of those who were involved and are still alive today to be absolutely reliable after 57 years (The actual engagement is described in some detail in "Ascent") from reports by survivors in "Australia in the War of 1939-45 - volume I Royal Australian Navy 1939-42") and reference 4). Many ships were lost with all hands during the War while HMS HOOD, with more than twice the complement of SYDNEY, was destroyed in a matter of minutes with only three survivors - three from over fourteen hundred.

Nevertheless there have been faint signs that the futility of the existing situation is recognised on both sides and that some changes in long-standing practices are inevitable. The government should stand back and encourage discussion that will almost certainly require compromise if the foolishness is to end.

B.A. Santamaria

The Navy League of Australia lost an influential supporter and the writer a good friend with the death of Mr. B.A. Santamaria in February this year. Mr. Santamaria's remarkable career, particularly in the areas of politics and religion, has been well documented and need not be repeated here. Perhaps not so well known was his interest and activities in defence and in maritime affairs - in the Navy, the shipping industry and in the waterfront in general - the latter no doubt because of his close involvement over many years with trade union matters.

Mr Santamaria was accorded a State Funeral by the Commonwealth Government and it was a most impressive occasion in terms of attendance and religious splendour. The writer could not help wondering however what Bob Santamaria, a man he knew to be a genuinely humble person, would have thought about it all.
NEW ZEALAND – SPECIAL FEATURE

AFTER THE 1997 DEFENCE WHITE PAPER

By Commander Richard Jackson RNZN

New Zealand’s November 1997 Defence White Paper outlined the government’s plans for the future force structure of the New Zealand Defence Force. The good news of the White Paper is that New Zealand’s defence spending will rise, to cover new capital equipment, an increased operating tempo and improved pay.

Overall, the White Paper confirms that the NZDF’s force structure will include:

a. a three frigate combat force for the Navy and a commitment to the other naval capabilities of MCM, NCS, sealift, RAS, hydrography and oceanography.
b. maintenance of an air combat capability, with the prospect of replacing the Skyhawks in the period 2007/2010. As well the capabilities of maritime air patrol, air transport and tactical vertical lift are to be maintained by electronic upgrades for the Orions, a commitment to C-130J’s and extending the airframe life of the Iroquois helo fleet.
c. Reviving the Army’s general land combat capability by enlarging the infantry battalions to four-company units (rather than the present three) and replacing the old M113 armoured personnel carriers, as well as acquiring new reconnaissance vehicles, tactical communications and infantry weapons.

generally these force structure policies are sound, except for the RNZN. The reduction to a three frigate Navy is a shock. Despite the words in the White Paper, the Navy’s assessment was that four frigates are necessary to both sustain deployments and provide the necessary training capacity.

However, the chain of events that led to the three frigate decision, and – almost concurrently – the decision to not order a third Anzac frigate, were the stuff of political drama. It appears that the RNZN’s priority now has to be the timely conversion of the ship gained little joint service support during the Defence assessment process.

But the White Paper does concede that some money has to be spent on the Navy; the plan for future capital projects includes the following:

- Kauri: proper ammunition storage upgrade
- bridge training simulator
- evolved Seasparrow towed array sonar and torpedo modifications (ie semi-WIP for the RNZN Anzac frigates)
- a fifth maritime helicopter in 2003
- remote minehunting system
- provision for the Anzacs’ midlife upgrade, and
- a third surface combatant by 2006

On the face of it, this may seem a good list. In fact it is just sufficient to keep the Navy ticking over by upgrading the Anzacs’ weapons, ensuring there is an attrition aircraft available to the helicopter force, continuing the development of our MCM capability and providing for two key pieces of infrastructure. Inevitably, the inclusion in the long term plan of funds for a third frigate has already attracted adverse political comment.

So what next for the RNZN after the 1997 White Paper? The Chief of Naval Staff has made it clear in one of his personal memos to the fleet as a whole (signed by WADS ‘With All Despatch’) that the RNZN’s priority now has to be the training of the RNZN Wellington, once designated as a training ship (ironically, fresh out of refit, she is now equipped with Phalanx CIWS and other new equipment) while the training staff at HMMNZS TAMAKI are seeking innovative ways to increase training effectiveness, and the meantime, MONOWAI will pay off in April and TUI has already gone out of service; both are being replaced by RESOLUTION with a consequential valuable saving in complements.

services that there would not be enough capital money to buy both replacement combat aircraft and a fourth frigate. But then the extra blow, of not ordering a third Anzac by November 1997, was the result of political posture taken by the junior coalition party.

So the fleet now has to reduce to meet the government’s new policy of a three frigate force. WAKATI – already reduced to an alongside training ship as extended notice – is to pay off in July 98. WELLINGTON will pay off as TE MANA is delivered, but CANTERBURY will steam on until a third modern frigate (if ordered) can be delivered.

The other shock for the Navy from the new Defence White Paper is the delay to the conversion of the CHARLES UPHAM, the military sea lift ship. The UPHAM was bought in late 1994, a Mercruiser class North Sea Ro/Ro trader. On arrival in New Zealand it was painted grey, given some additional communications equipment and commissioned in October 1995. She was deployed for various trials and Army exercises. On returning from a South Pacific deployment, with virtually no cargo, she was caught in a storm and found to roll sharply, too quickly for personnel safety, while her high sides caught the wind and made her nearly unmanageable. Navy knew that to function properly as a military sea lift ship UPHAM would need extensive conversion – more water tight compartments for demand stability (which would also provide accommodation for troops) a water ballast system and a flight deck (which like the British RFA ARGUS would be built over a concrete slab thus reducing the metacentric height and hence the rate of roll).

It is not that the UPHAM is unsuitable as a vehicle transport (after all a sister ship does the Wellington-Lyttelton run every week of the year) but in the long distances of the South Pacific she cannot reasonably undertake passages in a lightly loaded or empty condition, in her current configuration.

Coincident with this experience, the RNZN lost the inter-service/Treasury argument about a four-frigate fleet during the Defence Assessment process even before the White Paper was agreed by Cabinet. The sacrifice of the fourth frigate reflected concerns by the other two
The specific bright spot in the RNZN at the moment is the Sea Sprite helicopter program. The first of four SH-2F Seaprimates has been delivered and tested flown. These are ex-USN machines that are entering service as our in-service helicopter, so that the Wasp could be retired in April (after 32 years’ service!). The F-model Seaprimates will operate alongside the current TE KAHA and TE MANA as well as WELINGTON, CANTERBURY and ENDEAVOUR, until the first of the G-model aircraft arrive in 2000, at about the same time as the RAN Seaprimates arrive. So it is not all gloomy for the RNZN. The service is determined that its individual ships will be credible, both in terms of weapons and sensors, and in terms of well-trained ships’ companies. I am confident that we will be ready when both aircraft are in service. The RNZN White Paper can resume our place among the navies of the region. Back in Wellington Naval Staff will have some tough battles to fight to get a third Anzac frigate ordered, but I hope they don’t lose sight of making the case for a four-frigate fleet. Yet in the meantime the RNZN will have to look towards concentrating on training and on its people — they remain the greatest single factor.

WASP FINALE
by Lieutenant Andy J Nicholas, RNZN
(from Navy Today, RNZN News)

As the twilight years of the Wasp helicopter draws to an end let us briefly reflect on a rather remarkable 32 years of active service in the Royal New Zealand Navy.

The Westland Wasp was developed from the Saunders Roe P531 which first flew in 1958. Originally named the Sea Scout, the Wasp was always intended to be a lightweight anti-submarine, torpedo carrying helicopter for use onboard smaller warships such as frigates and destroyers. As the primary ASW weapon system with no detection or tracking systems, emphasis was placed upon attaining a real rapid response capability or put another way, being able to deliver a torpedo in the shortest possible time. Prior to 1966, the Royal New Zealand Navy had operated ships without Flight Decks. The purchase of HMNZS WAIKATO in 1966 was the RNZN’s first step into modern Naval aviation. Of course, New Zealand had been actively involved with carrier-borne aircraft during WWII, notably in the Pacific Theatre but those aircraft were generally integrated into the units of the bigger navies, and New Zealand never operated or manned its own air-capable ships. The first Wasp, NZ3901 and 1902 were purchased with WAIKATO and in consideration of the RNZN’s limited experience and size, provision of maintenance-support, and personnel and aircrew training was delegated to the Royal New Zealand Air Force. This arrangement has continued successfully to the present day with Naval Support Flight (or more commonly Wasp Flight) being formed as part of 3 Squadron RNZAF manned by RNZN pilots and RNZAF maintainers.

Wasp NZ3903 was purchased with HMNZS CANTERBURY in 1970, and these three aircraft continued until 1973 when 3903 ditched following an engine failure off North Head and was subsequently written off during the salvage operation. As a replacement NZ 3904 was purchased in 1977 having been leased from the Royal Navy since 1973. Perhaps the most famous accident which involved an HMNZS Wasp was in November 1978. In atrocious weather conditions 260 miles south of Bluff, an injured Russian sailor from the fishing vessel ANDREWS was winched and transferred to WAIOATA. The following morning to be flown ashore to Bluff again in the Wasp.

Air support for hydrographic operations wing the introduction into service of MONOWAI was initially undertaken by the RNZAF, but it soon became very clear that with its large flight deck and facilities, an embarked Wasp could significantly help support the ship moving stores and survey parties ashore. By 1979 Wasp Flights were regularly embarked in support of surveys. Notably in 1980 MONOWAI and her Wasp were deployed to the Pacific to assist with the surveying for the ANZACAN Pan-Pacific telecommunications cable. The early 1980s also saw four Armilla patrols to the Persian Gulf, two by WAIKATO and two by CANTERBURY each time with a Wasp embarked.

During 1982 and 1983, four more Wasps, NZ3903, 3906 and 3908 were purchased with HMNZS Ships WELLINGTON and SOUTHLAND, both of which were air capable, bringing the total number of Wasps to seven. The size of Wasp Flight similarly increased in line resulting in four operational flights to support the four frigates and hydrographic operations.

In 1984 Wasp NZ3907 crashed at Hobsonville airfield following an engine failure and was repaired and returned to an airworthy condition after sustaining significant damage. Regular Embarkment of Wasp Flight into the FFGs became a standard operation of the RNZN. ENDEAVOUR commenced after trials in mid 1988. In 1992 NZ3904 was destroyed after ingesting a boat cover in its rotor system. The aircrews were lucky to survive. Unfortunately NZ3901 was lost when she ditched in the Haunui Gulf in April 1993, having lost tail rotor control. The RNZN was the oldest Wasp and high in airframe hours it was deemed uneconomical to repair. With five now in service the mid 1980s purchases of the RNZAF airframes for spare parts was becoming very useful these ten Wasp were surplus after the RNZAF began to retire the aircraft. To make up for the six that were destroyed the RNZN purchased these ten Wasp was then chosen to be rebuilt during 1994, numbered NZ3909.

1994 saw the final embarkation of Wasp to MONOWAI. The change in surveying methodology in 1994 also led to the regular embarkment of Wasp and the shortage of Wasp and pilots made this in increasingly difficult task to support. Thereafter support has been provided by civilian helicopters operating ashore.

NZ3906 was withdrawn in 1995 because of ongoing excessive and incurable vibration problems. In 1996 WELLINGTON was to return to the Persian Gulf as part of the peacekeeping force, followed in 1997 by CANTERBURY, each time with the now desperately obsolescent though indispensable Wasp embarked.

1997 and 1998 witnessed the gradual reduction in the size of the Wasp fleet as preparations for the replacement frigate, the ANZACAN Pan-Pacific were accelerated. It was anticipated that the SH-2F NZA3902, with airframe hours almost time expired was withdrawn in early 1998 and is now destined for the Naval Museum Devonport.

Throughout all this time the Wasp has accompanied RNZN Ships’ deployments to the Pacific Islands including regular Raoul Island re-supply missions, Australia, Asia, The United States, Canada, the Middle East, The Indian Ocean, Europe and North Africa, through both the Suez and Panama Canals.

The final four aircraft looking as good if not better than when they first arrived in New Zealand, and with them in mind, the RNZN has considered that unforeseen corrosion or fatigue problems in later years could result in the Wasp’s operability being the case for its eventual retirement, but it is probably less likely than the RNZN is not going to have the honour of being the last Wasp operator as this will go to the Malaysian Navy. The Wasp has served us well and risen to every occasion when called upon and for that we can all be grateful. In reflection, the condition, safety and availability record of the Wasp will be difficult to equal and we should feel very proud.

SH-2F SEAPRIMATES ENTER SERVICE

The Royal New Zealand Navy (RNZN) has entered the interim phase of its Replacement Naval Helicopter (RNH) project with the start of SH-2F Seaprimates flying training and the final retirement of its obsolete Wasps.

The SH-2F is intended to bridge the gap between the withdrawal of the Wasp and the arrival of the SH-2F(NZ) Super Seapriate, the definitive RNH in late 2000. It will also provide the Naval Support Flight (administered by 3 Squadron Royal New Zealand Air Force) with lead-in familiarisation and training in advance of receiving the more capable SH-2F(NZ) model.

New Zealand announced the selection of Kaman Aerospace as preferred RNH tenderer in March last year. A $195 million contract for the delivery of four SH-2F(NZ) Super Seaprimates was signed three months later.

The RNZN has chosen to procure new-build SH-2Gs (rather than the remanufactured airframes contracted for Australia for its SH-2G(A) variant) as a risk mitigation measure. Although remanufactured airframes are brought to service much faster than the RNZN has considered that unforeseen corrosion or fatigue problems in later years could impact more seriously on the operability of its SH-2F(NZ) fleet.

The purchase agreement with Kaman included the supply of four SH-2Fs to replace the Wasp in the short term. Having served with the RNZN for 32 years, the Wasp is no longer economically supportable and will formally retire on 9 April.

By sea last November, the first SH-2F(NZ) arrived into Devonport via the deck interface trials aboard the new ANZAC class frigate HMNZS TE KAHA. The airframe subsequently completed a comprehensive restoration and inspection procedure (RIP) before a first check-test
Wasp aboard HMNZS Waikato (RNZN)

flight on 24 February. A formal roll-out ceremony was held on 27 February.

All three remaining SH-2Fs were delivered in December. They are undergoing AIP with reactivation expected to be complete by the end of July.

Naval Flight Commander Lt Cdr John Toon said: "The initial primary purpose of the SH-2F will be to train aircrew and maintainers to operate the aircraft safely, both ashore and at sea, as a front-line operational unit. Initially, three aircrew - two pilots and one observer - will be converted to type and invaluable support maintenance expertise will be provided for our newly trained engineers."

The establishment of an Observer Branch is a new departure for the RNZN because the Wasp was a pilot-only platform. Although the RNZN is training its own observers, it has recruited two ex-UK Royal Navy observers to provide a near-term capability. "With a vastly improved range and endurance over the Wasp, the Seasprite will effectively become the ship's eye in the sky, able to search for, track and report any surface contacts up to 100 nm ahead," said Cdr Toon.

"Its primary role will be as a weapons delivery platform for anti-submarine warfare, with the capability to carry two [Mk46] torpedoes, two [Mk51] depth charges, or a combination of both. It also comes with a rescue hook for search and rescue missions and has an impressive external load-lifting capability."

First-of-class flight trials aboard the Leander class frigate HMNZS Canterbury - currently in the middle of an aviation upgrade - are due to start in early October. Trials aboard HMNZS Te Kaha are planned to start at the end of that month. The SH-2F is configured with a Canadian Marconi LN-66HP surveillance radar, a Litton AN/ALR-66 anti-radar warning receiver and a Tracor AN/ALE-39 chaff/flare dispenser. However, the SH-2F's limited lifespan is likely to mean constraints on mission/system operability.

"The facts are that in view of the short service life of the SH-2F - it will be retired when the SH-2G enters service - spare parts and support for the mission systems will be limited and have to be funded from an already overburdened operating budget," said Cdr Toon. "Careful prioritisation of support and effort is the essence. It does not necessarily follow, therefore, that all of the airframes will have all of the capabilities all of the time." He added: "It is important to keep the SH-2F in perspective in that it was only ever intended as an interim solution to replace the Wasp until the arrival of the SH-2G in 2000."

"The aircraft is neither designed nor configured to meet the capabilities intended for contributing to defence outputs as specified in the RNH purchase agreement. Ultimately, the objective with the -F is to hit the ground running with the arrival of the -G at the millennium."

The four SH-2G(NZ) aircraft will be delivered with a mission system including a Telephonics APS-143PC radar, FLIR Systems' AQS-22 infra-red sensor and Litton LR-100 electronic support measures. Alongside the existing range of anti-submarine ordnance, the full-up RNH will also be equipped with the AGM-65 Maverick missile for anti-surface warfare operations.

Following their withdrawal from service, the SH-2Fs will be broken down for spares. Long-term capital acquisition plans, announced after last year's Defence Assessment, call for the procurement of a fifth SH-2G in the 2003 to 2005 timeframe.

LARC V MAKES A COMEBACK!

The Army's veteran Lighter Amphibious Re-supply Cargo Vehicle (LARC V) is planned to return to service by early next year in support of the Royal Australian Navy's two 8000 tonne LPAs, Kanimbla and Manoora, which are planned to return to service by early next year. The four SH-2G(NZ) aircraft will be delivered with a mission system including a Telephonics APS-143PC radar, FLIR Systems' AQS-22 infra-red sensor and Litton LR-100 electronic support measures. Alongside the existing range of anti-submarine ordnance, the full-up RNH will also be equipped with the AGM-65 Maverick missile for anti-surface warfare operations.

The Army's veteran Lighter Amphibious Re-supply Cargo Vehicle (LARC V) is planned to return to service by early next year in support of the Royal Australian Navy's two 8000 tonne LPAs, Kanimbla and Manoora. Originally built in the 1960s and withdrawn from service in the early 90s due to supportability problems, LARC V is being refitted to play a major role in the amphibious operations.

The Army purchased the American manufactured LARC Vs in 1964/65. The vehicles proved both versatile and dependable craft, operating from the tropics to the Antarctic. Each was capable of moving a 5 tonne payload of personnel and cargo from ship to shore and transfer points further inland. All were mothballed after the Force Structure Review of 1991 due to difficulty supporting the vehicles, aging 300 hp Cummins diesel engine.

Following the purchase of the two former USN Newport class tank landing ships, now redesignated LPAs, the need for a lighter amphibious re-supply craft re-emerged in US service. The Newport class LSTs were designed to beach for the discharge of troops and equipment. After conversion to an LPA by Forgacs of Newcastle, the vessels will not be...

THE NAVY

Four LARC Vs make group approach for a beach landing

THE NAVY

The update of the four-wheel-drive and propeller driven LARC V is planned to extend its service lives by up to 10 years. The project is one of ten LPA related activities being conducted by the Army for operations with the LPA. Total project budget is $15.347m with all elements due for completion in late 1999. Other major components include minor modifications to the LCM 8 landing craft, installing Army communications on the LPAs, lightering equipment, trials and training, and cargo planning. Industry estimates on the LARC re-engineering suggest a price-tag in the order of approximately $7m.
HMAS MANOORA after refloaving in May, 1998. (Photo - ABPH Damian Pawcenko)

have been removed, the bow doors beached, no longer expected to operate equipment - land vehicle - in the defence

The LARC V is the only piece of landing craft.

larger flight deck, capable of operating ships over more expensive super carriers.

Recently Australia played host to a collection of visiting USN warships but given the lack of an accompanying Aircraft Carrier this visit went un-noticed by the media. What they did not realise was that these ships form the backbone of the USN and one of the most available and deadly ship combinations in history. The ships, when operating together, form the USN's current SAG. The ships visiting consisted of a Ticonderoga class Cruiser, an Arleigh Burke class Destroyer, an Improved S又能 class Destroyer, a FFG-67 class Frigate, an Improved Los Angeles class SSN and a support ship.

During WW II the SAG concept suffered at the hands of emerging land and carrier based air power. This was evidenced by the destruction of the US Pacific Fleet's Battleships at Pearl Harbor, the sinking of the PRINCE OF WALES and REPULSE and the sinking of the Japanese YAMATO SAG. Only now is the SAG starting to rise up out of the ashes of the WW II experience.

Many would still write off the SAG in favour of the more glamorous CBG (Carrier Battle Group), much the subject of movies and documentaries, but with the US cutting back its carrier numbers more emphasis and reliance will be placed in the SAG to complete an unprecedented array of tasks. Those who write off the modern USN SAG would do so at their peril and possibly not realise how technology has transformed the surface combatant and the tasks that it can now perform. But in order to appreciate the real firepower of the modern SAG one must concentrate on the group as a whole and not as a fragmented collection of individual ships.

HISTORY

Of the 32 gunned capital ships sunk during WW II, only eight were sunk by their own kind, the rest by aircraft and submarines. Air and carrier power and Carrier power advocates used this fact to perpetuate the ascent of the Aircraft Carrier and later the CBG (Carrier Battle Group) concept as the centrepiece of naval warfare. The employment of the CBG with its flexibility and decisive firepower, confirmed the death of the SAG. Since then, a lack of air cover has always been the argument against sending surface ships in harms way without a carrier. Surface ships were thus relegated to patrol work and escort duties. However, a revolution has occurred in naval warfare in the areas of C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance) and weapons which has prompted the re-birth of the SAG and given it a flexibility previously unheard of. The -e-birth of the SAG could be said to have its origins in the same war that birthed the concept. The 1980s' re-activation of the WW II Iowa Battleships acted as the catalyst to the re-forming of the SAG and gave it a new future. Only a Battleship (BB) could provide public and military legitimacy to the SAG concept. With the right escorts, which technology was then providing the SAG could conduct limited independent operations even in the face of a moderate air threat. The BB formed the core unit of the SAG and its raison for existing. One of the principle tools that helped the re-emergence of the IOWAS, and the SAG, was the addition of cruise missiles to its impressive gun armament. This gave the BB a long range precision strike capability. Tomahawks could target airfields, C3 (Command and Control) nodes, roads, bridges and any sort of war sustaining industrial infrastructure or politically sensitive vulnerability. The BBs were also fitted to act as flagships, providing the necessary C3 (Command, Control, Communications) cohesion needed. Other weapons which permitted the SAG came with the accompanying Cruisers, Destroyers and Frigates. Weapons in the form of the long range anti-aircraft Standard SM-2ER, ASROC and the LAMPS helicopter all provided a means for the SAG to act independently for limited periods depending on the threat.

Given the IOWAS new capabilities, and advances in ASW and AAW technology, it made sense to allow the SAG free run of the oceans. A SAG off an enemy shoreline was bound to create as much confusion and fear as a CBG. It could thus supplement a CBG in certain situations by providing the much-needed visual confirmation of foreign policy determination not to forget a very effective tool of war if called upon.

During 1983/4 the USS NEW JERSEY led SAG provided televised proof of their value and viability as a supplementary force by engaging enemy positions in the hills around Beirut, thus saving the navy from sending aircraft to attack these positions. This was an important demonstration of the SAG's capability given that two A-6 Intruders attacking the same targets were lost weeks before. The IOWAS could engage targets from stand off ranges without exposing USN...
personnel to danger. The escorts accompanying this mission also engaged enemy positions whilst still providing AAW and ASW defence to the SAG Long range Tomahawks, anti-aircraft missiles, good ASW defence. NGS (Naval gunfire Support) capability and flagships C3 facilities ensured the place of the SAG concept in the new surface warfare domain.

The next demonstration of the SAG concept came during the 1991 Gulf War. The BBs WISCONSIN and MISSOURI pounded Iraqi positions with Tomahawks, 16-inch and 5-inch HE shells. While the two BBs and their escorts, conducted NGS operations off Kuwait they were fired on by an enemy shore based 'Silkworm' ASM (anti-ship missile). Fortunately an escorting RN Destroyer shot the missile down. This action was significant to the operation but bears mention for the fact that since the Falklands conflict the ASM was expected to have the same effect on the SAG as aircraft did during WWII.

During the Gulf War a total of 288 Tomahawk cruise missile were fired at Iraq from USN surface ships and Submarines in and around the Gulf. This proved the valuable contribution that surface ships could make to large scale operations in conjunction with CBGs.

But with the decommissioning of the BB many thought that the surface ship would go back to its role of CBG escort and patrolling. Without the BB forming the nucleus and public appeal what was left? But technology had advanced and during the time of the Iowa's re-activated service the Aegis combat system and Mk-41 VLS (Vertical Launch System) arrived. These two advances in naval warfare gave the SAG a new sting and viability.

Aegis provided a computer based command/decision combat system to counter threats from surface, sub-surface and air simultaneously. Coupled with the four megawatt SPY-1 radar system, it could detect and track over 300 airborne targets and engage them automatically using any ship in the group, conduct IFF and maintain data exchanges with other ships. The SPY-1's ability to scan and monitor events at incredible ranges (quoted as being to the edge of space) is an awesome advantage and warning system for the SAG. During the Gulf war, Ticonderoga operating in the northern gulf detected and tracked Iraqi Scud being launched against Saudi Arabia. More recently Aegis ships have been used to monitor Syrian and North Korean ballistic missile tests.

The Mk-41 VLS provided a stockpile of ready to fire missiles of any combination, including cruise. The addition of the Mk-41 to three of the SAG's ships provided a firepower replacement for the IOWAS. The SAG concept thus remained a part of the USN's maritime response despite the decommissioning of the BBs. The Mk-41 VLS's adaptability is the key to the current SAG. Depending on the mission, the ships can embark any kind of missile needed for the task in any combination. Much like a golf bag contains different clubs for specific needs depending on the course. Alternatively the VLS could employ one missile exclusively as the USS SAN JACINTO (CG-56) did with cruise missiles during the Gulf War.

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The USN's future goal for the SAG is an offensive maritime force that conducts precision land attack and theatre air dominance as part of joint, allied, and coalition forces. The new DD-21, together with Aegis-equipped Ticonderogas and Arleigh Burkes, will soon be able to establish theatre air dominance over the battle space with a new Patriot style anti-ballistic missile defence system based on the current Standard SM-2MR.

Other advances for the SAG includes a range of precision guided weapons for land attack out to 1500 miles. NGS and land attack capabilities being studied include a naval version of the US army TACMS (TACTical Missile System, a large surface to surface missile carrying 950 anti-personnel bomblets over 170 km). An Extended Range Guided Munition (ERGM) fired from a modified Mk-45 gun and a 155 mm naval gun in either a standard turret form or vertical launched/mounted form.

The SAG will certainly become a part of US foreign policy in the future, as the Aircraft Carrier battle group already has. As the cost and complexity of the USN CBG rise the SAG will increasingly take over in many of the world's trouble spots as a show and instrument of US foreign policy determination. Naval warfare is about to become more dynamic. Stay tuned!
**THE OLD NAVY**

**WHAT IS AN EM?**

The What a...: many people series was originally written in the late 1950s. The set will be reproduced in The Navy during 1998.

An EM is an Electrical Mechanic and knows all about electricity, ohms, watts, currents, and shocks. (NOTE: The "shock" bag holds all an EM needs for his day's work.)

**THE OLD NAVY** knows all about electricity, ohms, watts, currents, and shocks. (NOTE: The "shock" bag holds all an EM needs for his day's work.)

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Whenever the EM on duty at the main switchboard feels lonely he blacked out a used during the day as a pillow. The bag can also be used during the day as a pillow.

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**THE WORLD**

**BOOK REVIEWS**

**COMBAT Fleets of the World**

Edited by A.D. Baker III

Published by The United States Naval Institute (Email address: customer@usni.org)

Reviewed by Ross Gilliet

*Combats Fleets of the World 1998-99*. Their Ships, Aircraft and Systems is a much welcome addition to the range of naval literature currently available at the naval market.

In one volume, the editor A.D. Baker III has provided readers with one authoritative naval reference book. The thousand two hundred and twenty pages, including 4,600 photographs and 150 line drawings, is highlighted by detailed descriptions of the individual ships and classes, making Combat Fleets the historically popular Janes, the former's greater scope and size from its original French predecessor.

Carriers, missile ships, submarines, frigates, destroyers, and auxiliary ships, with a key numbering system to identify the important armament and fittings. A totally new format for the book presents the ships and craft classes in a consistent order, from new to old within each type. It would be impossible to highlight the vast amount of new information in the 1998-99 volume. However the Russian section has improved greatly over the past years, with the release of valuable new and updated data on the former Soviet era war ships and auxiliaries, available both on the web (www.marbooks.com) and in books.

The eighth of the 'In Focus' pictorial books from Maritime Books, The Royal Navy in Focus 1970-79 is now available. The new work is a follow on from the earlier 1930-39, 1940-49, 1950-59, 1960-69, and World War II and two special Fleet Air Arm editions.

For many readers, the years 1970-79 may not seem so long ago, but the vintage of ships depicted between the covers, will still bring back many memories for former naval personnel. Some of the oldest vessels still operating in the seventies included the 1844 vintage destroyer CAPRICE, 1943 frigate GRENVILLE, the 1938 MAIDSTONE and the repair ship HARTLAND POINT from 1945. Each of the illustrations is accompanied by a well researched and lengthy caption, outlining a brief ship career, including its final fate.

For the first time, colour is included as a special 28 page supplement, with a total of 18 colour and 143 black and white B&W size photographs included. Some of the finer images depict Royal Navy ships in rough sea conditions, including the frigates ARETHUSA and BACCHANTE, carrier ARC ROYAL and minewesper HUBBERSTON. Another interesting photo is the connected Bays class destroyer MATAPOI, modified for use as a trials ship in 1973.

The Royal Navy in Focus 1970-79 is also available from Maritime Books. Full details of all of their naval books are available on the web at: http://www.marbooks.com
To all those who enjoy reading history Flag 4 is a must. If Tom Clancy were a historian, this is the book he would have written.

NO EASY ANSWERS

The Development of the Navies of India and Pakistan, Bangladesh and Sri Lanka 1945–1996

By James Goldrick

Published by: Lancer Publishers with the support of the Royal Australian Navy Maritime Studies Program

Price $28.00

Reviewed by: Geoffrey Evans

This book, a treatise by James Goldrick, a serving officer in the RAN, is timely given the uproar following India's decision to continue nuclear testing in May. It will be of interest to anyone interested in the rather tortured politics of the new nations created as a result of partition of the Indian subcontinent in 1947 and Ceylon's independence in the same year, as well as to those interested in navies and maritime affairs.

Divided into nine chapters—a preamble, two each for India and Pakistan, one for each of the other three and a summary reflecting on fifty years following partition—the book has a very large number of notations quoting the source of statements made and conclusions reached by the author. It is easily read and well illustrated with photographs of ships.

All the navies had as their genesis vessels of the Royal Navy or rather, what had been the Royal Indian Navy and their development was largely influenced by their dislike or fear of one another or, in the case of Ceylon/Sri Lanka, by the problems of militant minorities and the incursion of Tamils from the Southern India province of Tamil Nadu.

Not surprisingly the new navies were at first orientated towards the Western powers, especially Britain, but faced at time by uncooperative attitudes by these powers turned towards the USSR. India in particular became adept in terms of equipment at taking the best of what each sides had to offer. Eventually Britain, the United States, France, Russia, China, Norway and Israel were among the powers bidding to supply ships and equipment to one or another of the South Asian nations.

No Easy Answers is a book well worth reading and will be a most useful reference tool for all those interested in a restless and very important part of the world, a part moreover where events will surely influence Australia's future.

*For a number of years service as a tourist submarine with the Australian National Maritime Museum, the former Soviet Navy Foxtrot class submarine was removed from her Pyrmont berth, alongside ex HMAS VAMPIRE. The submarine was shifted to Cockatoo Island before being towed to the USA for further use as display. (Photo – B. Morrison)
HMAS WESTRALIA, under tow of civilian tugs after her onboard fire in May, 1998. Four crew members lost their lives in the tragedy. An RAN S-70B-2 helicopter hovers above the aft flightdeck to drop-off rescue personnel (Photo - RAN)
The Navy League of Australia

Dedication of a new FAA Monument. In other aviation news, this edition of The Navy includes reports from the Super Seasprite project and plans in the USA to preserve the veteran aircraft carrier USS MIDWAY, which visited Sydney for the last time in 1987.

Other reports discuss the decision not to acquire the four Koll-class guided missile destroyers from the United States and an interview with Commodore Foxall (RAN) regarding the recent RIMPAC exercise. Pictorially, we look at the Naval Review held in the Philippines, with many Second World War era ships still surviving in support of the host navy.

Ross Gillett

The opinions or mentions expressed in The Navy are those of the authors and are not necessarily those of the Federal Council of the Navy League of Australia, the Editor of The Navy or the Royal Australian Navy.

THE NAVY

VIEWPOINT

This edition of The Navy marks the anniversary of both the Royal Australian Navy (87 years) and the Fleet Air Arm (50 years).

For the Fleet, the Navy will celebrate the former with a major open day at the Fleet Base East in Sydney on Sunday, 11 October. Five surface combatants (one destroyer and two frigates), the veteran submarine ONSLOW and the landing ship TOBAUK will be available for inspection. To promote 50 years of the Fleet Air Arm, four examples of current day helicopters will also be on hand, parked on the wharfside for all family members.

A major Air Day is also scheduled for HMAS ALBATROSS at Nowra on Sunday, 1 November. The previous day, the Fleet Air Arm will celebrate with a Freedom of Entry Parade through Nowra, including an RAN Historic Flight flypast. The Sunday Air Day will begin from 1030, preceded by the dedication of a new FAA Monument.

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The Navy

Copy deadlines for the next edition is 9 November 1998.

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As a Navy League member of many years standing and always look forward to receiving my copies of The Navy

Whilst I have never served under the White Ensign I have had an interest in things naval since childhood, having grown up with a step father who joined the RAN in September 1939 and who had a very interesting time serving on a number of ships and in a number of theatres throughout the War. I have been an amateur military historian since my early teens and a member of the Naval Historical Society since the sixties. I have particular interest in obtaining a motor from one of these vessels, namely a Packard unit, to transfer from one of these vessels, still maybe in existence here in Australia. I have particular interest in obtaining a motor from one of these vessels, namely a Packard unit, to transfer this information on to a friend who is requiring it for an upcoming project. If any reader can assist me with information regarding to WW2 Patrol Vessels (particularly US PTs & British MTBs) that still maybe in existence here in Australia. I can be contacted on 03 9484 9498. M A Handreck

Preston VIC 3072

Reader Dennis Ford sent in this old photograph of a navy diver. He asked when and where the photograph was taken. Can any former members of the Clearance Teams assist?

The nearer the need for cooperation and understanding get to the major equipment force structure decision levels, the greater become the difficulties and disagreements. At these levels, the Public Service has become involved. Each of the four groupings in Defence, the three individual Services and the Public Service, have participated in decision making and debate, often with one eye on the sectional interests of their grouping.

Some years earlier, the decision that the RAN would man and operate the Balikpapan class heavy landing craft (originally ordered for the Army) was deeply resented by many in the Army. Each of these issues clouded relations between the Services involved for many years afterwards.

In recent years, strenuous efforts have been made by successive Defence Ministers, Chiefs of the Defence Force and Secretaries of the Department of Defence to reduce inter-service stresses and to ensure that the three Services operate and train to fight as one Australian Defence Force, with the added objective of achieving the maximum value for the defence dollar.

For example, the decision that the newly ordered Black Hawk troop lift helicopters would be manned and operated by the Australian Army, the RAAF managed the acquisition of the aircraft for the Army.

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These changes have resulted in the establishment of operational joint service commands, such as Northern Command, and the establishment of the post of Commander Australian Theatre. Additional joint force commands have been established temporarily for particular operations and exercises.

Within the Department of Defence, a tri-service organisation has been established to manage the key functional areas. These range from personnel through intelligence and strategic planning to force structure. It is in the latter case that the friction can become particularly damaging. It is necessary to stay the right side of the fine line between the professional debate necessary to ensure that all factors involved in a key decision are considered and the counter productive effects of destructive criticism.

In recent times, many key force structure issues have enjoyed the support of all Services, the acquisition of an airborne early warning and control aircraft is an
example. The acquisitions of light tactical transports to succeed the Carabou is another, where the RAAF will acquire, and operate the new aircraft. Ninety per cent of their cargoes will be carried for the Army.

However, the impending ADF block obsolescence problem will test the ability of the Department of Defence to work together in the best interests of the country.

During the next decade, decisions will be necessary on whether and how to replace the RAAF's Tactic Fighter Force (F/A-18A/B strike fighters), strike and reconnaissance group (F-111s and modifications thereof) and maritime patrol group (AP-3C Orions). A decision will also be necessary on successors to the RAN's Adelphi class FFG7 surface combatants. All of these projects will involve multi-billion dollar purchases.

There are a number of smaller but none the less expensive - prospective purchases. These include successors to the C-130H Hercules and Boeing 707 transport and aircraft to their maximum capability. Examples include providing the RAN's surface combatants and submarines with surgical strike land attack missiles and the RAAF's Strike Fighters. Effective and modern "behind visual range" air to air missiles will be necessary on successors to the RAN's Adelphi class FFG7 surface combatants.

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Both RAN and RAAF needs are essential to the maintenance of a balanced Australian Defence Force offering the Australian Government a range of options in meeting a wide variety of threat levels and requirements to participate in international peace keeping and natural disaster operations.

Inevitably these decision making processes will strain inter-service relations. These have to be overcome without the bad feeling that can so often arise. A major decision that will have to be taken in the near future is the requirement for the UK to acquire the Seahawk helicopter. The UK Government has, as yet, to decide whether or not to accept this proposal and the Government in Canberra has yet to decide on what to do with the Canberra class.
The upgrade will involve significant and substantial investment. The larger 260 tonne DMS manned tug QUAOKKA SAILS NORTH
After 14 years in service in Western Australia, the 110 tonne naval tug QUOKKA (DT 1801) departed from HMAS STIRLING on 14 July for her new home port of Darwin. The tug now supports naval movements and activities in northern waters, with its first task being to tow targets during the Fleet Concentration Period. QUOKKA is now owned and manned by the Defence Maritime Services (DMS) organisation. The larger 260 tonne DMS manned tug TAMMAR remains at HMAS STIRLING. The upgrade will involve significant and substantial investment to change the way the tug operates, including weapons control, and command and control systems.

After studying the proposals from industry, Defence will make recommendations to the Government on upgrade options that are suitable for implementation.

DIAMANTINA: KEEL LAID
ADI has formally laid the keel of DIAMANTINA, the fifth of the six Huon class minehunters for the Royal Australian Navy. The 720 tonne coastal minehunters are being built at ADI's Newcastle facility, a purpose-built shipyard opened four years ago. The HUON project costing $1 Billion is on schedule and within budget, ADI reported. HUON commenced sea trials last June and the second ship, HAWKESBURY, was launched in April. DIAMANTINA's keel was laid by the secretary of the Department of Defence, Mr Paul Barratt, at a ceremony on Tuesday 4 August. Managing director of ADI, Mr Ken Harris said the laying of DIAMANTINA's keel continued the minehunter project's excellent performance.

The commencement of HUON's sea trials emphasised the successful on shore integration and setting to work of the HUON class combat system," he said. "While the combat system has to be validated at sea, a major achievement of this project has been that we have been able to install it on HUON, is already tested and co-occurring with the completion of the ship's combat trials." Mr Harris said the outstanding progress of the minehunter contract was underpinned by the excellent relationships between ADI and its subcontractors, high quality project management and the capabilities of the project's workforce.

The new minesweepers will be distinguished by the most advanced mine warfare system of any ship in the world today, according to ADI.

Interesting view of the new survey ship NUSHIP LEEUVIN as she proceeds to sea for builder's trials in the background is HMAS FLINDERS berthed at HMAS CAIRNS at the completion of another survey. FLINDERS decommissioned in early September, 1998.

Workmen at ADI in Newcastle work on the inner hull of the coastal minehunter DIAMANTINA.

The first HMAS DIAMANTINA, a River class frigate, in this view she has been converted to the survey-geophysical role.

Selecting the electronic systems that will define modern warships, the HUONs will be equipped with a minehunting sonar that can simultaneously search, detect, classify and route survey in depths exceeding 150 metres along with fibre-optic link controlled mine disposal vehicles carrying searchlights, closed circuit TV camera and a disposal charge. HUON and HAWKESBURY are in the water, NORMAN, GASCOYNE and now DIAMANTINA are under construction while YARRA is still in plants. YARRA is expected to be launched in September 2001 and commissioned in August of 2002. HUON should be commissioned at the end of this year. Each minehunter will have a company of 16.

RE-DEDICATION OF PROTECTOR
The former submarine trials and rescue vessel HMAS PROTECTOR was re-dedicated (re-named SEAHORSE HORIZON) at HMAS CRESWELL on Wednesday 1 July 1998.

The vessel which is part of the Defence Maritime Services (DMS) fleet, will undertake junior officers sea familiarisation training, diving and mine warfare support as part of DMS's ten year contract providing maritime support to

There certainly is a new dawn breaking on the horizon. The ships secondary role is to provide assistance to the mine warfare and clearance diving community. SEAHORSE HORIZON may also be called upon to supplement other DMS activities when not being used in her major roles. I have come to DMS and the Navy Support contract from the merchant marine and in my short time working with my Navy counterparts I have enjoyed what I believe is a most refreshing and professional attitude to the job. I am looking forward to a long and close relationship with the Navy. I am sure we in DMS and the Navy have much to learn and pass on to each other especially our sea going knowledge in our specialist fields. SEAHORSE's crew will be slightly different from other DMS and naval vessels, she will have two crews, one DMS, one Navy, both based at HMAS CRESWELL. In general terms when she operates as the sea familiarisation platform she will have a naval crew with DMS input.

When the ancient mariners peered at the horizon they wondered at the new worlds, adventures, commerce and learning which lay ahead. As we look at today's horizon, both the ship and that past Point Perpendicular, we can rest comfortably in the knowledge that our young and future mariners will receive the benefits of those ancients and other mariners who have sailed to the horizon and returned triumphant and safe, having overcome their fears and the ravages of the sea.
Another new version of ILACN Smyth MAF (NUSHIP HUON) is minehunter coastal, prior to builder's trials. By New Defence personnel launch operated Maritime Services on Sydney Harbour. (Brian Morrison)

New personnel launch operated by Defence Maritime Services on Sydney Harbour (Brian Morrison)

Another view of the new minehunter coastal, NUSHIP HUON. (JACN Smyth RAAF)

ROYAL NAVY
ENVIRONMENTAL PROTECTION

In the crystal waters of Scapa Flow, HMS ROYAL OAK is leaking oil.

Now, experts from Naval Support Command have revealed innovative plans to protect the environment against oil leaking from HMS ROYAL OAK. They have discovered a unique way to harness natural forces of wind and tide, release the oil into a container and bring it ashore.

The idea was inspired by Royal Navy divers working on the wreck to gather samples of the leaking oil ready for laboratory analysis. They rigged a temporary tent over the leak which funnelled the oil droplets into a container.

It worked so well that engineers have been asked to develop a permanent version, using natural force rather than man-made pumps to collect oil that is circulating within the hull. They will also be asked to investigate ways of safely accelerating the rate of oil leakage from specific locations. Over the coming years teams of RN divers will return to monitor the rate of oil flow, with the possibility of further action as the results become clear.

Back in 1996, following the discovery of oil ashore on the Orkney coast, the Orkney Islands Council called in the Royal Navy to try to solve the problem, amid fears that the leak was getting worse. By 1997 the hull was filled with a large metal patch giving the project team valuable time to seek a longer term solution which met the needs of the local environment and respected the war grave.

Oil collection and removal will include continued monitoring, a very controlled operation which may last many years. It is anticipated, though, that it may be possible to manage, and possibly to accelerate, the rate of oil flow from HMS ROYAL OAK by using this method. The design for the oil collector is now out to tender. Once commercial engineers have returned their designs, the most suitable will be chosen and divers are expected to install it late in the summer of 1998.

THAI CARRIER – A LOCAL REPORT CARD

The new Thai aircraft carrier CHAKRI NARUEBET was bought for the Thai Navy in the early nineteeneties because “it was their turn to have something”. Now in the late 1990s, the Navy has no use for a carrier: it only engages in coastal defence and would not venture beyond land-based air cover.

The main reason given by the Government for a carrier is that it will give them the edge in a scrap over the Spratly Islands (some islands off Vietnam I think) which are hotly disputed, although about half of them are underwater at high tide!

However, it is understood that Thailand is about the only country in the region which does not lay claim to all or part of them!

As well, the Thais also bought a number of former Spanish AV8A Matador Harriers to go on it which many are claiming are basically junk. Since commissioning last summer the ship has only left port twice (both in 1997) Her current status is a tourist attraction, with the ship's company conducting tours and selling souvenirs at the Sattahip Naval Base.

The Asian economic crisis has also played havoc with Thai defence procurement policy (cancellation of eight F/A18s, losing only their $75M deposit). President Clinton waived the cancellation charge of
**DD 21**

The United States Navy's new land-attack destroyer of the 21st century, DD 21, entered Phase One development of system concept on 17 August with the award of a $485,000,000 agreement modification to the DD 21 Alliance.

The Alliance, comprised of General Dynamics Bath Iron Works Corporation (BIW), Bath, Maine, and Ingalls Shipbuilding, Pascagoula, Miss., is led by General Dynamics, who will execute the Phase One agreement. The use of two, independent design teams will ensure that DD 21 benefits from intense and aggressive competition during this critical concept development phase. Work will be performed by two competing teams: the "Blue Team," led by General Dynamics' BIW, with Lockheed Martin Government Electronic Systems, Moorestown, N.J.; and the "Gold Team," led by Ingalls Shipbuilding with Raytheon Systems Company, Falls Church, Va. Each competing team is responsible for developing an independent competitively robust total ship design and life cycle support concepts for the DD 21 System.

**DD 21** is tied to pier F-5 on Battleship Row. 300 hundred yards behind USS ARIZONA. She will reside there for a maximum of three years before moving to a permanent site at the most seaward end of "Battleship Row" at piers F-2 and F-3. The grand opening for MISSOURI and her memorial museum is scheduled for January, 1999.

"These two ships together make a more significant statement about our country and the spirit of our American servicemen and women than each ship could make by itself," Sutton said. "Together they symbolize the beginning and end of World War II, and the sacrifices made by tens of thousands of our young men and women during that war. They together remind the world of the Honor, Courage and Commitment that is America's character."

She was recommissioned in both 1944 and 1986, fought in three Wars, (World War II, Korea and the Gulf War), and was decommissioned twice (1995 and 1992). Now, the "World's Most Famous Battleship" has returned to the place she started her illustrious career when she joined the Pacific Fleet in 1944. MISSOURI's teak wood decks hosted the signing of the "Instrument of Surrender" by the Japanese in Tokyo Bay in 1945. Khune said, "It's the last ship the Sailors see as they leave Pearl Harbor and it's the first ship they'll see when they return. And I think it will be a reminder of all the Sailors who have gone before them and have paid the price for liberty."

**COMFLOT AT RIMPAC 98**

**An interview conducted with COMFLOT (Commander, RIMPAC Ships) and CTG (Captain Lou Rago) during Exercise RIMPAC 98**

What is COMFLOT's role at RIMPAC 98?

I'm the Sea Combat Command for the Multi National Force (MNF), working for Commander Carrier Group Three. My function is to co-ordinate all surface and under sea warfare for the INVIN. I'm also involved in maritime interception and defensive warfare as well as small ship co-ordination. This means I have responsibility for most areas of warfare with the exception of air defence warfare, and command and control warfare Essentially, I look after the sea and undersea warfare responsibilities assigned to the INVIN Commander.

What benefits does the Royal Australian Navy receive by participating in RIMPAC 98?

The RAN receives substantial benefits from RIMPAC. We have been coming to RIMPAC since it started, in fact this is our 16th appearance. We always make an effort to get as many ships as we can over here and we've been coming for a long time, because we do get such a lot of benefit from the exercise. The biggest benefit is enhancing interoperability, working with people from the US but with all the other nations as well. A level below that is the great training benefit we get from working in RIMPAC-complex scenarios with lots of ships and advanced weapons firing; which in some cases we do not get a chance to do in Australia. The general structure of RIMPAC means we get to practice every element of warfare with a large number of other forces operating in a complex and dynamic scenario. So briefly improving interoperability is the key benefit. The opportunity to work in a multi warfare environment is a close second.

What is the Australian Navy's contribution to RIMPAC 98, and what is the major purpose of Australia's involvement?

In the RAN Task Group itself we have 1000 young men and women at sea. However, the total is over 1200 Australians participating when you include the personnel involved in support crews for the three P3C Orion aircraft as well as the Australian support staff ashore and embarked in USS CORONADO and CARL VINSON. We have a lot of people involved and have expended significant resources because we get such excellent training value from the exercise. The value we get from RIMPAC makes the time, effort and money well worth it. Interaction between junior officers and sailors of other navies during various social and sporting activities also helps us to understand what the other nations cultures are and what environments they work in. We really enjoy the interaction between the different nations.

How does the Australian TG operate in RIMPAC?

The Australian Task Group is split for RIMPAC 98; we are not solely working as an Australian Task Group because we are fully integrated across the full range of RIMPAC activities. For example HMAS ONslow and DARWIN are working with the Opposition Force, the Commanding Officer of HMAS PERTH (Captain Lou Rago) is the Surface Action Group (SAG) commander with no other Australian ships in his SAG. The other two Australian ships, HMAS MELBOURNE and DARWIN, are in completely different SAGs. Having the Australian Task Group split gives us much greater better training benefits through interacting with other nations in RIMPAC at all which I believe is a much better way to conduct the exercise.

How does RIMPAC rank to other exercises that the RAN participates in?

RIMPAC ranks very high up on our priorities because of the professional value we get from it. We exercise a lot in our region but, of the standing exercise with the US would be top of the tree. Only just ahead of some of our regional exercises. For example the Five Power Defence Arrangement exercise called EX 98 between the Singapore, New Zealand and the United Kingdom, is also very important to us. In terms of professionalism, RIMPAC is the one we value the most.

How is Australia's role different from past RIMPAC exercises?

The 1998 exercise is not that much different from 1996, although the RIMPAC scenario has changed slightly in the past year and a half. In the past we have worked as an Australian Task Group and as the Opposition Force. When RIMPAC involved two aircraft carriers the Australian TG worked in opposition to one of the carrier groups.

What are your personal expectations for RIMPAC 98?

My key hope and objective is that we have a professionally rewarding exercise. We have come a long way and spent considerable money getting ourselves here. What I hope to get out of it is a group of Australian ships and a wider RIMPAC community that achieves professional results. That's what we all aim at. Almost everything that is professional goal is a safe exercise. We have spent a lot of time thinking about safety RIMPAC is a very complex activity and potentially very dangerous. Each of the Commanding Officer's and all the ship, submarine and aircraft personnel will endeavour to ensure it is a safe exercise. The third goal is that people enjoy themselves. This is a really good opportunity to understand how other people work and to really practice our training. Professionalism is the key, safety is shortly behind that and thirdly I hope our people really enjoy it and have fun doing it. We love coming here to Hawaii and I think if you asked the average Australian sailor what he would like to do, going to RIMPAC and visiting Hawaii.
When we finish RIMPAC we don't go straight back home but put the ships through a series of exercises and activities culminating in our Fleet Concentration Period in Darwin where the ships from RIMPAC meet up with another TG, which is deploying to SE Asia. The ships don't actually get back to Sydney until 23 September.

What happened on the passage over to RIMPAC?

On the way over the TG received a message from RCC Honolulu that a fishing boat captain had been lost at sea from a ditched helicopter. We were close to the area, so as all mariners will do, we went to the aid of someone at sea with a problem. The TG searched for over 12 hrs but the decision was taken when the person was not recovered, to proceed to Hawaii. Only a couple of days out of Pearl Harbor HMAS MELBOURNE was detached and conducted a search for a sunk vessel. Their helicopter located the liferraft which was subsequently found to be empty as the passengers had already been rescued. It is part of our job to help our bretheren on the oceans. And, it is one of those things we train for. In the course of a two week passage it was most unusual for two SAR incidents to occur. The first incident was 40 miles off track to Hawaii, and the TG had high passage speed of 16 knots. Spending 12 hrs on task meant that the TG had to catch that time up. It was unfortunate that the first incident did not have that same successful outcome as the second.

What pre-exercise activities have the Australians been involved in?

One of the great advantages of coming to RIMPAC is the use of the range and support facilities at Hawaii. All our ships have been through our Foracs range testing and sensor measurement, and they have conducted torpedo firings. The sensor testing ranging and torpedo firings were pre RIMPAC activities, which have been very valuable. So there are actually two reasons for being here, one is to check our weapons systems and the other is to participate in the exercise. It's a good learning process. It will probably be the last time that we do the testing and ranging here in Hawaii as we have recently built equivalent ranges in Australia.

What are some of the Australians favourite places in Hawaii?

Waimea fall and Hanauma Bay, the bars and karoke in Waikiki, lots of mountain bike riding opportunities are just some of the favourites. I reckon there is not many better sites in the world than watching the sun go down over Diamond Head and Waikiki beach whilst watching the aircraft, boats and people with a cold beer in your hand at Dukes bar. It's one of the world's great places. The only disappointment of this trip has been the inability to visit some of the other islands, which we have had the opportunity to do in previous RIMPACs, mainly due to the busy program this year. Fortunately there has been sufficient block leave periods for sailors to fly to MAUI and some of the other islands in their spare time.

What aside from RIMPAC are COMFLOT's duties?

COMFLOT has two functions: the primary one is the Sea Training Group (STG) function. When a ship comes out of refit, the STG puts the ships through a work up process, culminating in an assessment of its capabilities. The STG comprises a number of experts who sea ride. They spend a lot of time working with the ships and putting them through a number of evaluations. Whilst the STG focus is on single ship capability, it then becomes the CM's responsibility to work up the TG as a group of ships. The overall TG readiness becomes his responsibility. The second function of COMFLOT, is what I'm doing here at RIMPAC and that is to exercise tactical command in a group of ships. Basically I have two roles: STG and Tactical command.
From Geoffrey Evans

National Shipping Line Sale Moves

The Australian Government, in its attempt to dispose of the Australian National Line proposes to sell the company in three pieces – the liner trade (preferred bidder Compagnie General Maritime [CGM]; self discharging vessels (preferred bidder Aucan Self Unloaders) and shore-based activities consisting of container management, freight forwarding etc.

While ownership of the first two parts oversees the land activities, depending to some extent on the successful purchaser of the liner trade business, will possibly be sold to one of the large Australian transport companies.

If they go ahead as planned the sales will mean the end of yet another once proud Australian shipping company. The ANL was never a giant among the world's shipping companies but as an active and innovative participant provided Australia with an influence in an industry of absolute importance to the country. Australians may one day regret the shortsightedness of their governments.

UK Shipping Decline

Australia is not the only country with merchant shipping problems. The August edition of The Melbourne log, a journal of the Melbourne Branch of the Company of Master Mariners carried the following item:

"National Statistics has announced that British Shipping contributed (pounds sterling) 4.45 bn in 1997 (4.68 bn in 1996), whereas expenditure in foreign shipping aggregated 5.17 bn (reduced by 0.04 bn since 1996). NUMAST describes this as ridiculous at a time of rising world shipping for an island nation"

NUMAST is the organ of the Union of British Merchant Officers. It is a hard to realise that not many years ago the world's major shipping nation.

SYDNEY inquiry

The inquiry by the Defence Sub Committee of the Joint Parliamentary Foreign Affairs, Defence and Trade Committee into the loss of HMAS SYDNEY in 1944, completed its special inquiry hearings and nominated cut-off dates for written submissions mid-year.

Altogether 79 witnesses appeared before the sub committee in Canberra, Perth, Melbourne, Sydney and Brisbane, while over 360 submissions, half of which were supplementary submissions amending the original, some three, four or five times, were received.

Transcript of the hearings and the written submissions have been published, the latter in 16 volumes. The variety of theories concerning the loss is quite remarkable, but the writer gained the impression that even if SYDNEY was sighted and located the probable cause of her destruction is determined, the overwhelming feeling is to allow the ship to slip away - a war grave.

The defence sub-committee is also inquiring into military justice procedures in the ADF. At the time of writing it is not known when its findings on either of the inquiries will be presented to the Parliament.

The Forgotten Campaigns

As readers of this column will be aware, not many years ago Britain was a power in world shipping, maintaining a large merchant marine, and a large proportion of the merchant officers were trained in this country and served throughout World War II.

The writer was one of those who attended the meeting and it marked the beginning of an association, indeed a friendship, that lasted until Sir Victor's death 29 years later. It was obvious the Navy's supporters could be of very little help to their former service unless they were familiar with its problems and needs: this required frankness and a close and continuous relationship between the Navy and the organisations involved. Admiral Smith agreed and honoured the agreement to the full during the remainder of his term as Navy Chief and, in a broader tri-service sense, while he was Chairman of the Joint Chiefs.

It can of course be argued that Service leaders who preceded Admiral Smith were equally conscious of the need for public support for their armed forces but so far as the Navy is concerned, the way he set about "closing the gap between Navy and the civilian community" (as put it in a letter to the writer) was unusual and perceptive.

OSERVATIONS

The FLEET AIR ARM CELEBRATES 50 YEARS

EARLY YEARS

Australians were involved in flying operations during the Great War (1914-1918), with all personnel serving with the British Royal Naval Air Service. Operations were conducted with a number of Australian warships, including the battleship HMAS ALABROSS, the cruisers SYDNEY, MELBOURNE and BRISBANE. In the early 1920s the Australian built seaplane carrier HMAS ALABROSS was launched at Cockatoo Island, for operations with RAAF aircraft Seagull III amphibians. In 1938 ALABROSS was eventually transferred to the British in exchange for the new cruiser HMAS HOBART. Throughout World War II the Royal Australian Navy operated improved FAA Seagull V and Walrus amphibians from its three heavy, three light and two armed merchant cruisers. Following the successes achieved by British and American aircraft carriers in the battles against Japanese forces, the Australian Government decided to form its own Fleet Air Arm based on an aircraft carrier force.

The first documented move of the RAN to acquire a fixed wing carrier force was in 1944 when the then CNS presented his submission to the War Council. He was seeking a gift of an aircraft carrier from the Royal Navy. However, whilst many Australians were involved in early naval flying operations, Australia would not form its own naval aviation force until 1948, although many attempts had been made previously to achieve that.

Subsequently, in October 1945, the carrier acquisition debate increased. A project officer was sent to England to evaluate the RAN's air requirements for a Fleet Air Arm and to propose a plan based on the then Royal Navy organisation.

A FLEET AIR ARM

The naval aviation plan originally proposed to create two light Fleet Carrier Groups, three Carrier Air Groups and two Naval Air Stations for training and other functions. Recognition was to be achieved by volunteers from General Service, civilians and experienced FAA personnel from the RN. In effect, the plan was approved by 50% of ex-RN personnel.

The plan was approved in August 1947. The carriers MAJESTIC and TERRIBLE were acquired, to be renamed MELBOURNE and SYDNEY and two Carrier Air Groups established at Nowra and Shoefields.

In April 1950 the 21st CAG comprising 181 and 805 Squadrons was formed at RNAS EGLINGTON in Northern Ireland on 28 August 1948 HMAS ALBATROSS, the RAN's first aircraft carrier, was commissioned on 31 August 1948 and the first of the RAN's aircraft carriers, HMAS SYDNEY was commissioned at Plymouth in the UK and arrived in Australia in 1949. The first of the light fleet carriers arrived in Jarvis Bay on 25 May 1949 with the 20th CAG embarked as deck cargo.

In April 1950 the 21st CAG comprising 181 and 808 Squadrons was commissioned in the UK for transport to Australia aboard HMAS SYDNEY.

The second of the new carriers, HMAS MELBOURNE, incorporated many improvements over the earlier SYDNEY. The new carrier was required to be a stronger and more operational aircraft carrier in the world.
incorporate steam catapults, an angled deck and a mirror landing system. MELBOURNE arrived in Australia in May, 1956 with 816 and 817 (Gannets) and 808 (Sea Venom) Squadrons embarked. Fixed wing carrier operations in the RAN reached a new crossroad in 1959. Discussions were held regarding the dismantling of the fixed wing elements of the Fleet Air Arm in 1963, when a major and expensive upgrade was expected. Decisions were being made to reduce the FAA to a purely anti-submarine rotor force, with the planned acquisition of 27 Westland helicopters from 1961. The FAA experienced another four year period of uncertainty, but with the decision to retain MELBOURNE as a fixed wing carrier, the ship went on to operate successfully in major international exercises across the world. In April 1963 the carrier achieved her 20,000th deck landing since commissioning in 1956.

A third aircraft carrier, HMAS VENGEANCE was also operated by the RAN in the early 1950s. She was loaned from the Royal Navy during the period 1953-1956 to fill the gap until the arrival of MELBOURNE. The Sycamores VENGEANCE delivered were the first helicopters to be purchased by the RAN. Embarked fixed wing carrier operations continued throughout the Korean and Vietnam war periods, as well as numerous major international exercises until 1982 when the 27-year-old MELBOURNE was decommissioned. On 30 June, Fixed wing operations continued for another two years, after which the FAA was reduced to a predominantly helicopter force.

NAVAL AVIATION TODAY

The Naval Air Squadrons now based at HMAS ALBATROSS continue to support the Fleet at sea, with most of the RAN’s principal frontline and support ships having the capability to embark helicopters. The three squadrons at HMAS ALBATROSS includes:

817 Squadron with eight Sea Kings now converted to the medium lift utility role and;
723 Squadron with a mixture of six Squirrel helicopters for training, five Bell 206’s for survey duties and training and, a pair of HS 748s for the all important ECM training.

Also at HMAS ALBATROSS is No 2 Squadron, a RNZAF Skyhawk Unit on contract to the Australian Defence Forces for Fleet Support and Air Defence training duties and Pel Air, a civil contractor operating Lear Jets, also on contract for Fleet Support duties.

In January 1997 orders were placed for four Kamik Super Seasprite helicopters armed with the Penguin air to surface missile system to operate from the new ANZAC class frigates now entering service with the RAN. The arrival of the Super Sea Sprites from early next century will bring with it, another era of helicopter operations for the Fleet Air Arm.

The RAN Fleet Air Arm has been involved in three significant wars since 1948 and numerous peacekeeping commitments.

KOREAN WAR

The participation by SYDNEY and her CAG from 31 August 1951 was an amazing feat as she sailed off to war after only two and a half years from the first flight of a Sea Fury in Australia.

Vietnam War

Four helicopter contingents, each of 12 months duration (Helicopter Flight Vietnam) joined the US 135th Assault Helicopter Company for land based operations in a very different type war from October 1967. HMAS SYDNEY, converted to a troopship/stores role embarked helicopters on a number of her 24 re-supply trips from Australia to South Vietnam. The Vietnam experience was a harrowing experience for both the aircrew and groundcrew alike, with many fatalities and wounded in operations in a permanent hostile environment. The RAN Helicopter Flight Vietnam was disbanded in June 1970 ending a remarkable FAA chapter.

THE NAVY

CALLING ALL EX-FAA PERSONNEL

We are holding our Golden Jubilee Reunion at HMAS ALBATROSS – 28 OCTOBER – 2 NOVEMBER 1998 and we are trying to locate all surviving ex FAA personnel to invite them to this significant occasion. The 50th Anniversary of HMAS ALBATROSS (31 August 98) is also being commemorated in a joint celebration during the period, with the following programme.

Date

Activity

Wednesday 28 October

1000 – Registrations open at Museum
1200 – Registrations – continue
1330 – Combined Cocktail Party, Best Recruit Museum
Friday 30 October

0800 – Registrations – Museum
1000 – FAA AGM – PTS Theatre
Air Day Rehearsal all day
1100 – Base Tours Museum Tours
1230 – BBQ Lunch
1400 – FAA History – Review
1500 – Launch History Book
PM – Mini Branch Reunions
00 – Dinner at brook
1900 – 50th Anniversary Ball “A” Hangar
Saturday 31 October

1100 – Freedom of Entry Parade with RAN
1200 – Historic Flight flyover
1330 – Prime aircraft “Fly in”
1500 – Spring Festival
00 – Mini Reunions
Kangaroo Valley Tours
Race Day – Nowra Racecourse
1900 – BBQ Museum
Sunday 1 November

0830 – Ecumenical Service
0930 – Monument Dedication – Museum
1030 – HMAS ALBATROSS Air Day
1200 – Mixed Bowls Competition and Golf Day
1830 – Sydney Tour (All day)

Would you please forward your details below (and those of known ex FAA ship mates) In order that we can make contact and forward an invitation in due course to join us and make this a worthy and memorable occasion.

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Secretary
FAA 50th Anniversary Committee
PO Box 15
THE NAVY
NANAL PO
NOWRA NSW 2540

Did you receive our Golden Jubilee Reunion at HMAS ALBATROSS – 28 OCTOBER – 2 NOVEMBER 1998 and we are trying to locate all surviving ex FAA personnel to invite them to this significant occasion. The 50th Anniversary of HMAS ALBATROSS (31 August 98) is also being commemorated in a joint celebration during the period, with the following programme.

Date

Activity

Wednesday 28 October

1000 – Registrations open at Museum
1200 – Registrations – continue
1330 – Combined Cocktail Party, Best Recruit Museum
Friday 30 October

0800 – Registrations – Museum
1000 – FAA AGM – PTS Theatre
Air Day Rehearsal all day
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THE KIDDS, OPPORTUNITY ONLY KNOCKS ...

By Mark Schwentker

In a decision that can only be described as illogical the ADF rejected the RAN's best opportunity to once again become a credible naval power when it turned down a USN 'gift' of four Kidd class destroyers. USS KID, CALLAGHAN, SCOTT and CHANDLER, which were being withdrawn from service prematurely. Regrettably, despite the $30 million price of each and the fact that these are powerful and impressive destroyers, the offer was declined. Had the Kidds been accepted the RAN would have been the most powerful Navy in the South West Pacific, South East Asia and possibly the Southern Hemisphere, restoring to it a level not seen since the loss of the Aircraft Carrier MELBOURNE.

The Kidd class has had a varied and interesting career and its early decommissioning has nothing to do with its capabilities but rather USN economies. But Australia's decision not to proceed with the offer not only defies logic but contradicts the recent "Strategic Review" which called for a strong Navy to defeat ships and aircraft in our air-sea gap. Unlike us, other enlightened countries are lobbying to have the Kidd offer extended to them. Most notably the Greek Navy who recently conducted detailed surveys of all four ships.

The level of USN RAN interoperability gained by purchasing the Kidds is, in particular with their CBGs, would be unsurpassed by anything in the RAN. This would have allowed the RAN to electronically plug into joint allied operations giving it the ability to exploit the USN impressive C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance) capabilities and join the maritime RMA (Revolution in Military Affairs) club.

HISTORY

In 1979 an Iranian order for four US built AAW destroyers was canceled as a result of the Ayatollah Khameini coming to power. The USN then purchased the still-in-build destroyers and renamed them the Kidd class, after Rear Admiral Isaac Kidd killed aboard the USS ARIZONA at Pearl Harbor.

The Kidd class refers to what the Spruance was meant to be but a lack of funding altered the design slightly. The only differences between the two lie in weapons and sensors as the Kidd was designed for general warfare with a particular emphasis in AAW, according to the original buyer's intent. Another advantage of the original buyer's specifications were larger than normal air-conditioning and dust filtration units for use in the Persian Gulf by coincidence this also makes them suited to Australia's top end.

The main weapon system of the Kidd class consists of two Mk-26 twin arm launching stations for Standard SM-2MR in place of the Sea Sparrow and ASROC launchers of the Spruance. The forward magazine holds 24 Standards while the after holds 44, a total of 68 in all.

The Kidd's radar suite is also impressive with a SPN-60 3-D air search radar, an SPS-49 air search radar (as used on the RAN's FFG and Anzac), two SPG-52 fire control radars for the SM-2MR, one fire control radar for her two Mk-45 127 mm guns (as used in Anzac) a short range track while scan fire control radar, a surface search and navigation radar.

The C3 (Command, Control, Communications) capabilities are impressive and provide the class with a flexibility only seen in more expensive Aegis equipped ships. On many SPS operations they have performed the role of group command ship whilst still conducting defensive or offensive operations. One such case was the class's performance during the 'Tanker War' in the Gulf. The class not only acted as flagships but also provided defence of the US air and surface forces.

Before the arrival of Aegis equipped ships the Kidd class constantly formed the AAW defence and C3 element of CBGs and ASROC teams of the class. The only unit in the Kidd SCOTT and KIDD, saw action in the Gulf as escorts to the EISENHOWER CBG and MISSOURI ASROC respectively, conducting air operations and supporting the Aegis escort's of the groups.

During the UN operation "Resolute" Hope in Somalia the USS CHANDLER made a 30 knot transit from the Persian Gulf to Somalia. Operating from Mogadishu airport for nearly a month, CHANDLER provided air traffic control services for civil and military aircraft of all types from many nations for the entire country.

More recently the class has been used for counter narcotics operations with great success. A recent deployment around our LSS CALLAGHAN, operating in the Eastern Pacific, chased a large ocean racing boat and seized 3,500 kg of cocaine estimated to be worth US$165 million. Over 60% of this year the USN SCOTT assisted in seizing 1,800 kg of cocaine off the coast of Honduras whilst on drug surveillance operations.

THE OSPREY, OPPORTUNITY ONLY KNOCKS ...

By Major Robert J. Machan

In October of last year the USN informed Australia that a window of opportunity existed to purchase its four Kidd class destroyers. USS KID, CALLAGHAN, SCOTT and CHANDLER, which were being withdrawn from service prematurely. Regrettably, despite the $30 million price of each and the fact that these are powerful and impressive destroyers, the offer was declined. Had the Kidds been accepted the RAN would have been the most powerful Navy in the South West Pacific. South East Asia and possibly the Southern Hemisphere.

The Kidd class had a varied and interesting career and its early decommissioning has nothing to do with its capabilities but rather USN economies. But Australia's decision not to proceed with the offer not only defies logic but contradicts the recent "Strategic Review" which called for a strong Navy to defeat ships and aircraft in our air-sea gap. Unlike us, other enlightened countries are lobbying to have the Kidd offer extended to them. Most notably the Greek Navy who recently conducted detailed surveys of all four ships.

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THE QDR AND USN SURFACEM STRENGTH

The Kidd class was originally due to be decommissioned in 1977 however, the recent US QDR (Quadrennial Defence Review) called for an all Aegis fleet and the total number of US surface combatants to fall from the current 128 to 116. Hence this figure was arrived at and why it affected the Kidds has nothing to do with the class whatsoever, i.e. age or technological deficiencies as detractors of the offer to the RAN inaccurately portrayed.

A US General Accounting Office report on Surface Combatants released in May 1997 foreshadowed a number of reasons why the parameters used to plan surface combatant numbers would fall. Firstly, with more capable and flexible ships, i.e. Aegis and Tomahawk equipped, coming off the slips. Six surface combatants were viewed as being far more capable, flexible and survivable in the littoral battlefield environment which the USN is increasingly being engaged in due to the end of the cold war. Aegis and Tomahawk allow a ship to establish theatre air dominance and influence events ashore through the application of precision long-range fire power. Both these USN objectives are not required by the RAN.

Further, the model used for number requirement generation has also changed. Basing distances on the location of recent naval engagements, redefining the number of months between deployments and changing the point of origin of ships to deployed areas has contributed to the revised ship numbers.

Another facet of the reviewed figure is the expected contribution to USN operations of countries like Canada, the UK and Australia etc. US Chief of Naval Operations Admiral Jay Johnson stated in the 1997 edition of Force 2001: Vision, Presence, Power that it is essential to provide "allies or likely coalition partners with US equipment, training and logistics support (to improve) interoperability and common infrastructures among our own forces."

Further to this the USN Secretary John Dalton said in September 1997 "our nation cannot shoulder alone the burden of an outdated "Global Defense". One could surmise that USN strategy calls for the acquisition of Kidds by the RAN not only to help itself but also Australia.
KIDS IN THE RANDer apart from new ‘Order of Battle Posters’, four ‘new’ names, some new ammunition and electronics stocks nothing more would be required to fit the Kidds into the RAN, except some manpower, budget and program re-allocations. Most of the ships systems, electronics and weapons are common to the RAN including their STG-250 gas turbine propulsion.  

As mentioned the Kidds are still fully operational and deployed. Some of the radars and consoles along with communications equipment are common. However, what is not common is the class’s superb 3-D air search radar, its C3 capabilities, new SAMSM-2MR air-anti missiles, which incidentally the RAN is hoping to use on a VIP Anzac.

The SM-2MR is essentially the only hard kill counter to the supersonic S.S.N-22 ‘Sunburn’ ASM (Anti-Ship Missile) now entering the Chinese Navy. It also provides a means of defeating attacking ‘Sunburn’ ASM (Anti-Ship Missile) now entering the Chinese Navy. It also provides a means of defeating attacking

The bow of USS CHANDLER on her last visit to Sydney. From left, the MK-28 twin launchers for the 74 km SM-2MR and one of the two MA-45 127 mm naval guns (as used on HMAS ANZAC)

inside the RAN the battle over the Kidd offer was somewhat divisive. Many at the sharp end were in favour of acquisition but some ‘dry docked Canberra Admirals’ opposed it. Industry is certainly worried as acquisition of the $12 million Kidd was seen as an alternative to the $1 billion FFG upgrade, as it was widely believed that four of the older FFGs would decommission to make way for the Kidds. Although this may seem a waste of four FFGs which have served the RAN well one should consider that the FFGs were designed as disposable warships at the height of the cold war, with a life span of 23 years without major modification (USN figures). Given this philosophy it is not surprising that doubts about the RAN’s earlier FFG hull integrity are already starting to emerge. The Kidds however, are large 9,000 ton warships whose life expectancy is over 35 years, consequently they will last a lot longer than our FFGs despite the fact they were commissioned around the same time. This fact also means that a replacement will not be needed as soon thus affording a saving.

At this point one should question why the Kidds were rejected in favour of the FFG upgrade. For $1 billion the FFGs will gain another fire control radar, a short range airsearch surface search radar, a new combat data system, a new hull mounted ASW sonar, a mine avoidance radar and an eight cell VLS for Evolved Sea Sparrow (Type proposal).

It is not receiving SM-2MR or any significant upgrade in its long-range radar coverage as compared to the Kidds. Nor will it receive the same C3 capabilities, the ASW potential, the NGS capability or the range, speed and survivability of the Kidds. Some of the more disappointing elements of the FFG ‘upgrade’ are the retention of the SM-1MR missile and no fleet wide C3 capabilities.

To add insult to injury both contenders propose fitting some equipment to the FFGs already found in the Kidds, but even the application of this technology and the $1 billion, will not produce a warship anywhere near the Kidds. A potentially debilitating and frightening aspect of the upgrade is that much of the new combat system, like the Collins class SSKs combat system, is untried and unproven. It is also rumoured that both proposals now exceed the $1 billion budget.

Cautions arguer that the Kidd offer was another second hand junk sale. Nothing could have been further from the truth. Two of the Kidds have recently been laid up in reserve and the other two are still fully operational and deployed. But their second hand equipment is still somewhat strong based on the LST acquisition experience. However, it should be noted that KAMMLRA and MANORDA regardless of their problems, still represent a significant capability enhancement and saving over new build ships. One should also remember in the ADF has procured from second hand equipment such as the F-111Gs, HMAS SHROPSHIRE, DUCESS, SUPERTRENT, BAR, GOLDEN BULL to name but a few.

Criticism of the offer also includes the provision of through life support. The USS Spruance class destroyers are also being decommissioned and early retirement a real possibility if the Kidds have the RAN then through life support could be achieved for as little as $10 million (rememnering the virtually identical design of the two).

Another problem cited with Kidds were crew numbers as each ship’s complement is approximately 350. As the DDG’s crews have already been earmarked for Anzac, crews would have to come from four decommissioned FFGs. ADELAIDE, CANBERRA, STYNE, DARWIN. As each FFG’s complement is only 190 this would mean recruiting only 760 to fill a total complement of 1400. But some in the RAN suggested that a figure of 250 per Kidd could be achieved through transfers from the RAN’s old FFGs and new ship’s weaknesses and sensors, such as replacing the two Mk-26 twin arm launchers with Mk-41 VLS, as on theImproved Spruance class it has been shared that is the class with a missile load of 68 Standards.

Into was improving the Kidds even further and investing in a new program still currently underway in the USN. The ‘Smart Ship’ project is investigating ways of reducing manpower onboard ships which in turn produces significant savings, approximately $US1.2 billion per a ship for a one-off US$8 million investment.

The US study team’s initial findings were that crew reductions could be made based on greater use of internal communications, bridge and watch manning policy changes, increased use of GPS and digital charts, a self monitoring condition assessment system and a computerised damage control facility. The report on the program stated that “the smart ship initiative was a success and can provide a significant return on a modest investment in technology”. And that the program can produce “long term benefit of positive crew moral and increased retention of quality personnel”. Particularly as part of this program the Ticonderoga class cruiser YORKTOWN went to sea to demonstrate the concept and was acclaimed combat ready, operational and safe with 50 enlisted and four officers less.

Initial elements of this new program are already being integrated into all USN ships and submarines. The RAN should have asked itself was, if these modest changes were applied to a modern Kidd of 250 personnel how many would then be required? Possibly 200 or the same as an FFG?

In 1961 the RAN took a bold step and acquired the Charles F. Adams class DDG. At this time the were the first US made ships in the RAN. Logistically the fleet would be under some pressure as up until this point the fleet was comprised of British made ships and equipment. All the equipment on the DDG would be exclusive to them thus requiring an expansion of the fleet’s logistic system. However, this did not influence the decision. The ships were assessed on their merits. However, today the RAN is different. Some of the uncommon equipment of the Kidds was cited as an area too small for too much strain on the fleet’s logistic system. However, I would point out that if the Kidds had been introduced the older DDGs could have been retained and allowed that way for the off equipment of the Kidds by taking the place of the greater number of one-offs of the remaining DDGs. Remembering that the Kidds are significantly common to the FFG and Anzac than the DDGs.

It is unfortunate that our bureaucracy and force structure is so rigid and inflexible that the opportunity that the Kidd offer cannot be given the attention it deserves. A senior Adm has publicly stated that the RAN did not bother to investigate the offer (also evidenced by their inaccurate criticisms) given the plans in place for the current force structure. It is also regrettable that some would prefer to invest a billion dollars in a somewhat pointless upgrade on six frigates instead of $120 million in four recently upgraded operational destroyers. For, it is particularly poignant given that the RAN is currently at its lowest ebb in living memory and is set to get worse.
**OCEANS GOVERNANCE AND MARITIME STRATEGY**

The latest seminar in the biennial series run by the RAN's Maritime Studies Centre in conjunction with the University of Wollongong’s Centre for Maritime Policy and Strategy (formerly Transfield), took place in Canberra from 18 to 19 May 1998. The subject was 'Oceans Governance and Maritime Strategy: the growing legal limitations on naval mobility.'

The seminar was dominated by a central and persistent theme: the competition between the exercise of government authority over the sea and the idea of freedom of the seas. The tension between these competing forces, which permeate the centuries, and has reflected the political, strategic and economic circumstances of all polities, has generated arguments between East Asian countries over disputed islands and Exclusive Economic Zones. There needed to be a resolution to these maritime claims, and agreements on dealing with incidents as they arose. China had huge maritime interests. 25% of her oil and gas was off the coast of China within 12 years. 15% of her GDP would come from fishing. China was developing her Oceans Policy.

RADM Chris Oenbould, the RAN's Director of Naval Policy, outlined the extensive Regional Security Co-operation between Australia and East and SE Asian countries and the nations of the South Pacific. This included the fields of naval and air activities. He felt that this contributed to stability in the areas concerned. Possible improvements might include the designation on greater interoperability of forces. More warfighting exercises such as Mine Counter Measures, increased training, exercises with Asian naval forces. The 'development' of the Maritime Patrol aircraft and inter-action with submarines. There was also some further potential to pooling some efforts with New Zealand.

Dr Rosemary Balkin of the Attorney General's Department spoke on 'Oceania: international law and fisheries.' She outlined the various laws and Conventions to which Australia is now committed, including the London Dumping Convention regulating dumping at sea, the Basle Convention on transboundary movement of wastes, the Marpol Convention on Marine Pollution: the Intervention Convention on Coastal States intervening on the high seas in the case of accidents causing pollution, and the Convention on Oil Pollution.

Dr Marcus Howard of the University of Tasmania, represented the view that the Government was about to launch an issue paper for public comment on Australia's Oceans Policy. The policies contained in this document will be of considerable importance to our future as "the nation at the centre of the world's oceans." Whatever the content, it seems quite clear that we will have to devote increased resources to surveillance, and to enforcement of our own and international laws in the areas for which we hold responsibility.

RADM A J Robertson AO DSC RAN (Retd), Federal Vice-President Navy League of Australia.
The Royal Australian Navy (RAN) and New Zealand Royal Navy (RNZN) have ordered 11 SH-2G(A)s and four SH-2G(NZ)s from Kaman Aerospace International under contracts valued at in excess of US$160 million and US$160 million respectively. The SH-2G Super Seasprite is an upgraded derivative of the earlier SH-2F model, with power provided via twin General Electric T700-401 engines. The SH-2G has been operated by the US Navy Reserve since February 1993 with two squadrons of 14 aircraft each, one each stationed on the east and west coasts. These helicopters carry a Litton Computing Devices Canada ANUYS-503 acoustic processor and Mk 46 or Mk 50 lightweight torpedoes. As well, Kaman is fitting two new reserves to the aircraft so that they can carry the Magic Lantern system. The Australian and New Zealand Super Seasprites are planned to operate in the surveillance and anti-ship roles rather than for ASW (using only two crew). The RAN's Super Seasprites have been acquired under Project Sea 1411, like those for Egypt, use refurbished ex-US Navy airframes taken from desert storage in Arizona. Deliveries of the 11 aircraft under firm contract are due to span from September 2000 to mid 2002, to equip the ANZAC class frigates, while New Zealand has elected to procure newly built aircraft, using some existing components, for delivery from June 2000.

The RNZN is expected to buy another single Super Seasprite for service on additional platforms, with the RAN having options to increase its SH-2G(A) fleet with the commissioning of new helicopter equipped ships. Kaman has also proposed a land-based version, to carry up to eight fully armed troops for an Army reconnaissance and fire-support helicopter for use in the heart of the country. The Department of Defence is expected to issue an invitation to register interest in June, with a request for tenders in June 1999. Contract award is planned for July 2000, with deliveries from January 2003.

A helicopter designed over 40 years ago is being remanufactured into a 21st-century fighting machine for several foreign navies. Kaman Aerospace Corporation's long-lived H-2 Seasprite, in its SH-2G Super Seasprite configuration, has been rescued from a well-deserved retirement by aggressive Kaman marketing and new sensor technologies that have transformed the shipboard helicopter into an even more formidable extension of a ship's combat systems. The Egyptian Air Force and the Australian and New Zealand Navies all have contracted with Kaman for remanufactured SH-2s, and the navies of several other nations are considering purchases of the Super Seasprite.

Kaman's first SH-2F for an overseas customer rolled out of the company's Bloomfield, Conn., plant on 21 October. The first of 10 SH-2F(Ms) for the Egyptian Air Force was welcomed in a ceremony by Gen. Hazim Awad, chief procurement officer for Egypt, who said that the SH-2F(M) adds "an important new dimension to my country's ability to defend its coastal waters." He gave special praise to the SH-2's anti-submarine warfare (ASW) system. "This is an outstanding aircraft and we are looking forward to its becoming a part of Egypt's defense system."

Charles H. Kaman, Kaman Corporation's chairman and CEO, called the rollout "a milestone event for the SH-2G Super Seasprite as it marks the beginning of its new mission in international military service. We are very proud to have Egypt as the lead international customer for the SH-2G, and we look forward to supporting this aircraft for the life of the program." The value of the Egyptian program to Kaman is more than $150 million for the aircraft and support services.

The SH-2G will be armed with two Kongsberg Pergun Mk 2 Mod 7 anti-ship missiles, one on the starboard pylon, with provision for a second round to port. A Link 11 terminal will be fitted for the exchange of targeting and other information. The SH-2G(A)s will be fitted with a composite main rotor blade (CMRB) with a 1.000-hour fatigue life, developed by Kaman under USN contract. Across the Tasman Sea, the RNZN selected a standard rather than a 'glass' cockpit. Each New Zealand helicopter will be armed with two AGM-65 Maverick anti-surface missiles, one per side, on new outward weapon pylons.

As an interim measure the RNZN also ordered four ex-USN SH-2Fs as interim replacements for the aging Westland Whirlwind, until the newer Super Seasprites are delivered. The first F-model arrived in late 1997 with flight trials from February 1998 and first shipboard deployment aboard TE Kaha planned for June. After the delivery of the SH-2G(A)s, the older SH-2Fs will provide a source of spares.
restored or replaced as needed, and obsolete wiring is removed. Modular terminals for new avionics systems also are installed.

The Seaspire had never served in a foreign role, but it was sent to the States for a new build-up of SH-2s to Portugal in 1990 and did not go through. A 1994 Foreign Military Sales program to provide Turkey 14 SH-2s for use by the Turkish Navy. The U.S. Navy then offered the 14 SH-2s for sale.

The process of turning an SH-2F into an SH-2G is not a mere airflow refurbishment and systems upgrade; it requires a complete stripping of the airplane and remanufacture of components that need replacement. New engines are installed, moving parts are

An END AND A BEGINNING

Following trials of the VSH-2G, the Navy ordered six new SH-2G Super Seaspire powered by two General Electric-built T700-GE-401 engines. The SH-2G featured a dramatically expanded capability over the SH-2F, made possible by a 99-channel Computing Devices-built UTC-501 acoustic processor, a Litton-built ARN-16 tactical navigation system, a MIL-Std-1553 data bus, and an auxiliary power unit. However, the end of the cold war led to cancellation of plans to remanufacture about 115 SH-2Fs to SH-2Gs; ultimately, only 18 such conversions were completed. The rapid decommissioning of the six SH-2F-SF squadrons and one of the three reserve SH-2F squadrons during the early 1990s accompanied the withdrawal of Knox class and short-hull Perry class frigates. The SH-2G never entered service with the Navy's active-duty forces, but replaced the SH-2Fs in the two remaining reserve light anti-submarine helicopter squadrons (HSL-84 and HSL-94)

The SH-2G is a very nimble helicopter with a highly maneuverable tail section and a unique approach, hover, sonar cable-angle hold, and LR-100 ESM systems for the SH-2G(A). which will be used for "first-of-class trials" on the RNZN's new ANZAC class frigate TE KAMAR, after which they will continue in an operational role. The SH-2Fs were obtained from the United States, where they had been in desers storage. In New Zealand, the aircraft undergo intensive "noise to tail" reactivations to bring them back to operating standards. Reactivation of all four SH-2Fs was scheduled to be completed in the August-September timeframe.

THE NAVY

Kaman Aerospace International Corp., announced a contract to provide ten SH-2G(NZ) Super Seaspire to the New Zealand Navy (RNZN). Deliveries are expected to begin in 2000 to replace four SH-2Fs that Kaman will deliver to the RNZN to serve as interim replacements for the Westland-built Wasp ASW helicopters on board the RNZN's Leander class frigates and new Meko 200 ANZAC class frigates.

The RNZN plans to operate the SH-2G(NZ) with a two-man crew, a pilot and a tactical coordinator. The SH-2G(NZ) version will be configured to fire the AGM-65 Maverick air-to-surface missile. The SH-2G(NZ) variant is used by the RNZN's Leander class frigates and new Meko 200 ANZAC class frigates.

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UKAHA, the RNZN's new ANZAC class frigate TE KAMAR, was awarded a contract from Transfield Defence Systems, CSC Australia Pty. Ltd., and Scientific Management Associates (Australia). On 5 November, 1997, Australia chose the AGM-119 Penguin Mk2 Mod 7 anti-ship missile to arm its Super Seaspire. The SH-2G(A) will be equipped with the Liston Guidance & Control Systems-built Integrated Avionics System (IADS) "glass cockpit." The RNZN officials, will make the SH-2G(A) the most sophisticated, most integrated rotary-wing platform flying. Australia also selected the AAQ-16 FLIR and the second of four Kaman SH-2F Seaspire helicopters, which will serve on an interim basis until the year 2000, when they will be replaced by more advanced SH-2G Super Seaspire.

The first two aircraft are being used for training pilots and ground crews of the Royal New Zealand Navy (RNZN) for the advanced "G" version. The aircraft will be used for "first-of-class trials" on the RNZN's new ANZAC class frigate TE KAMAR, after which they will continue in an operational role. The SH-2Fs were obtained from the United States, where they had been in storage. In New Zealand, the aircraft undergo intensive "noise to tail" reactivations to bring them back to operating standards. Reactivation of all four SH-2Fs was scheduled to be completed in the August-September timeframe.

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Following trials of the VSH-2G, the Navy ordered six new SH-2G Super Seaspire powered by two General Electric-built T700-GE-401 engines. The SH-2G featured a dramatically expanded capability over the SH-2F, made possible by a 99-channel Computing Devices-built UTC-501 acoustic processor, a Litton-built ARN-16 tactical navigation system, a MIL-Std-1553 data bus, and an auxiliary power unit. However, the end of the cold war led to cancellation of plans to remanufacture about 115 SH-2Fs to SH-2Gs; ultimately, only 18 such conversions were completed. The rapid decommissioning of the six SH-2F-SF squadrons and one of the three reserve SH-2F squadrons during the early 1990s accompanied the withdrawal of Knox class and short-hull Perry class frigates. The SH-2G never entered service with the Navy's active-duty forces, but replaced the SH-2Fs in the two remaining reserve light anti-submarine helicopter squadrons (HSL-84 and HSL-94).

The process of turning an SH-2F into an SH-2G is not a mere airflow refurbishment and systems upgrade; it requires a complete stripping of the airplane and remanufacture of components that need replacement. New engines are installed, moving parts are

EGYPTIAN AIR FORCE - DEEP-DIPPING SONAR

Kaman's first foreign model, the SH-2G(E), is the first of a series of Super Seaspire planned to be fitted with the 1,500-foot-depth ASQ-18A dipping sonar instead of a sonobuoy dispenser. A U.S. Navy SH-2G was so equipped as an evaluation platform for a new digital helicopter designed by Kaman. The Vista Controls-built coupler (automatic extraction) was tested at the Naval Air Warfare Center Aircraft Division at Pax River, Md., to evaluate its capability in automatic extraction. The Vista Coupler was largely assembled at the Naval Air Warfare Center Aircraft Division at Pax River, Md., and will be used to extract the SH-2G(E) from a helicopter capacious ship - large or small - in the New Zealand and Australian Seaspire. It is scheduled for September 2000.

The first three are temporarily based in Pensacola, Fla., for crew training; actual operations began in October 1998. The Egyptian Air Force will deploy its Super Seaspire on board the Egyptian Navy's Knox class frigates Damit and Rashied and on the USN's Oliver Hazard Perry class guided-missile frigates Mubarak and Taba. (Egypt is expected to acquire two more Perry class ships and two more Knox class ships.)

RNZN - DELIVERY IN 2000

Last year, Kaman Aerospace International Corp., announced a contract to provide four SH-2G(NZ) Super Seaspire to the Royal New Zealand Navy (RNZN). Deliveries are expected to begin in 2000 to replace four SH-2Fs that Kaman will deliver to the RNZN to serve as interim replacements for the Westland-built Wasp ASW helicopters on board the RNZN's Leander class frigates and new Meko 200 ANZAC class frigates.

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THE NAVY

The American Navy's SH-2G, the Egyptian version of the Super Seaspire, is operating by three crew members: two pilots and a sensor operator. The 10 SH-2G(E)s purchased by Cairo were delivered to the United States by Kaman Airframe in 1996 and 1997, but New Zealand officials, will make the SH-2G(A) the most sophisticated, most integrated rotary-wing platform flying. Australia also selected the AAQ-16 FLIR and the second of four Kaman SH-2F Seaspire helicopters, which will serve on an interim basis until the year 2000, when they will be replaced by more advanced SH-2G Super Seaspire.

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NAVY WEEK 98 – SYDNEY
PROGRAMME OF OPEN DAY,
SUNDAY 11 OCTOBER, 1998

Time Activity
1000 Fleet Base Opens. Cowper Wharf Road, Woolloomooloo
   - HMA Ships Open for Inspection:
     - Logistic Landing Ship HMAS TOBRUK
     - Guided Missile Frigate HMAS MELBOURNE
     - Guided Missile Destroyer HMAS PERTH
     - Guided Missile Frigate HMAS NEWCASTLE
     - HMA Submarine ONSLOW
     - Fleet Oiler HMAS SUCCESS
     - To celebrate the 50th anniversary of the Fleet Air Arm,
       four Naval helicopters available for inspection on wharfside including:
       - Sea King, Seahawk, Squirrel and 206B-1.

1000 Shoreside displays open, including:
   - Task Force 72 model warships
   - National Flags
   - Defence recruiting van
   - Naval Historical Collection display
   - Australian Naval Aviation Museum
   - Photographic Displays
   - Naval Reserve Cadets
   - Fleet Gymnasium

1100 Navy Band performance
1130 Diver display in Woolloomooloo Bay
1300 Navy Band performance
1400 Diver display in Woolloomooloo Bay
1530 Ceremonial Sunset performed by the Naval Guard and Band
1600 Ships’ gangways close to visitors
1630 Last visitors off ships
1700 Fleet Base closes

(Please note: This programme may alter subject to ships’ availability)

NAVAL REVIEW – THE PHILIPPINES

The former USN Auk class minesweeper RIZAL (PS74), built for operations in the Second World War and transferred to the Philippines in 1965. Stricken in 1994, the patrol ship was refitted and returned to service from January, 1996. She is crewed by 100 personnel. The ship is armed with two 76 mm guns and four 40 mm, four 20 mm and two 12.7 mm guns. (Brian Morrison)

The Auk class patrol ship QUEZON during the 1998 Naval Review. Her main armament comprises three single 76 mm dual purpose guns. (Brian Morrison)

Another view (port bow) of the RAJAH HUMABON at the 1998 Naval Review. Her main armament comprises three single 76 mm dual purpose guns. (Brian Morrison)

Fine broadside of the Auk class vessel RIZAL. The 53-year-old ship is one of ten Second World War vessels (one frigate, nine minesweepers) currently forming the PS force. (John Mortimer)
On 1 July, 1998 the U.S. Navy officially announced its intention to award the decommissioned USS MIDWAY aircraft carrier to the San Diego Aircraft Carrier Museum (SDACM). In a letter to SDACM’s president, Alan Like, Assistant Secretary of the Navy John W. Douglass said delivery of the historic ship from Bremerton, Wash., is confirmed, upon completion of five conditions. MIDWAY organisers expected all of the conditions being met.

A group of community leaders and elected officials have been working for more than five years to moor the MIDWAY at Navy Pier 11A in San Diego as a tribute to the armed services and the city’s tourism industry,” noted San Diego Convention & Visitors Bureau President Reint Reinders.

Meanwhile, museum organisers expect to meet the conditions contained in Douglass’ letter in the near future. Said Like, “We have been working closely with the Navy for five years. This official notification confirms that we can be confident that MIDWAY will be coming to San Diego for her final tour of duty.”

The Navy requires evidence of “firm financing” for the project; SDACM’s Vince Benstead and others have been meeting with local banks to establish a consortium of local lenders to finance approximately $3 million for the project’s opening phase. From the beginning, MIDWAY organisers have adamantly insisted the project would not involve taxpayer funds.

The Navy also wants to be assured a permanent mooring site based on Port District support and completion of an Environmental Impact Report (EIR). Late last year, the Port gave its conceptual approval of the project at Navy Pier 11A, subject to completion of an EIR, the development of which is underway.

In response to another Navy condition, project officials are developing a specific maintenance plan – including staff monitoring, encapsulation, cleaning, sealing and removal techniques – to be approved by the Environmental Protection Agency and become part of the environmental impact report.

The Navy’s requirement for adequate insurance is being met through companies that specialise in museum insurance coverage.

Finally, the United States Navy will require a lease for use of Pier 11A, already developed and under review. Equally important, two-thirds of the warehouse on Navy Pier has been removed, creating approximately 400 parking spaces for use by MIDWAY visitors and others.

“We appreciate your efforts to preserve and honor ex-MIDWAY and look forward to working with you over the coming months to fulfill all requirements to finalise the donation of this historic vessel,” said Douglass.
THE NAVY

The association's year-long study found a sound and conservative financial plan which should result in a successful, self-supporting museum for San Diego. The costs of mooring and refurbishing the MIDWAY is estimated at $13 million, a 50% bank loan, $1 million in donations as well as future surplus revenues from the museum. The carrier museum will be moored to the old Navy pier just south of the Broadway pier.

MIDWAY Magic's fund-raising campaign passed the $1.5 million mark in 1997. More than 40 San Diego individuals and organisations have contributed $25,000 each to the MIDWAY Project to become "Plank Owners." The second phase of fund-raising, the "Centurion Club," is now underway.

A 390-page application for the use of the MIDWAY has been submitted to the Secretary of the Navy, in an application that details virtually every aspect of MIDWAY Magic's operation and impact. San Diego was the only city to submit an application.

MIDWAY was commissioned on September 10, 1945. Named for the Battle of MIDWAY, the carrier was the lead ship of her class, ultimately serving her country for 47 years. More than 200,000 American veterans served aboard her. In that time, the MIDWAY saw service off Vietnam, in the Persian Gulf and in a number of other conflicts and operations. She completed three tours off Vietnam, her aircraft downing the first and last MiG of the war in the course of nearly 12,000 missions. More recently, her aircraft flew more than 3,000 missions in Operation Desert Storm.

Through it all, MIDWAY Magic became a living legend in the Navy because the carrier always found a way to meet her operational commitments. Over five decades of service, she received the Presidential Unit Citation, U.S. Navy Expeditionary Medal, Navy Occupation Service Medal: China Service Expeditionary Medal; and Vietnam Service Medal.

After being the first aircraft carrier "forward deployed" for 17 years in Yokosuka, Japan, she returned to North Island Naval Air Station in San Diego for decommissioning in April of 1992. Today, she rests at Bremerton, Washington, ready to begin her final "tour of duty" as San Diego's tribute to the contributions of the armed services and as a dynamic, interactive beacon of education and entertainment in "America's Finest City."

MIDWAY will be converted into a multi-dimensional, interactive educational and entertainment complex, attracting visitors and residents alike as the only museum of its kind on the west coast.

WHAT IS A ... STORES ASSISTANT?

The "What is a..." navy series was originally written in the late 1950s. The set will be re-produced in "The Navy" during 1998.

Speaking very generally, Stores Assistants consist of two types - (1) have them, and (2) have them.

There are two types of Stores Assistants - the "S" and the "V."

SA(S) types are either myopic, liverish or slightlying. Amongst the more popular being - "Do you know the pattern number mate?" and "Have you got your AS 156?" and "We haven't got any." Some people in the Navy maintain that an SA(S) cannot visualise the future, nor does he have any "bag of spuds.

SA(S) types are issued with either a sheet of paper and a pencil, or a bag of spuds. He is helped by a SA(V), who is usually the only person with plenty of Mess Gear. His stock is effectively secured by a vast mess-traps. (The Trap is the 30 cents you pay for the "drop of a hat and without blinking an eyelid.)" Some people in the Navy maintain that an SA(S) type is really "hurting over" and not able to cope. They are usually found in the Navy because there are always exceptions to this. It is a general rule that all navy people have an "S" at the end of their name.

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1. standeasy.
2. lunch;
3. make and mend;
4. stocktaking, etc.
5. Mess Gear, etc.

As well, the SA(S) is so trained that unless he is surrounded by classes, groups, section, references and Forms AS I upward to AS 1,000,000, he is helpless.

Training also means use of the "feint." Go to the office, ask for the same item. Some people in the Navy maintain that an SA(S) cannot visualise the future, nor does he have any "bag of spuds."

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Australian Carrier Decisions: The Acquisition of HMAS ALBATROSS, SYDNEY and MELBOURNE by Anthony Wright was initially written in 1978 as an Inernal Department of Defence study. The original work was written in the midst of the debate over whether or not to replace MELBOURNE. Unfortunately, once the draft manuscript had been completed it was not progressed with any further. That is until now.

The book describes the processes involved and the decision to acquire aircraft carriers for the RAN. In examining these decisions the book also examines the decision making processes and the strategic background against which these decisions were made.

In the case of ALBATROSS Dr Wright clearly demonstrates the problems created by the decision to acquire this vessel, a ship not originally included in the Five Year Plan and one for which no naval requirement really existed. ALBATROSS was a hybrid, neither capable of defending herself nor able to operate at speed with the cruisers with whom she was to accompany. Additionally, her capability came at too great a cost to a navy operating under very restricted financial circumstances.

If there was a benefit in the construction of ALBATROSS, she at least helped maintain a level of dockyard capability in Australia. Not just in the context of large facilities, but also with respect to many small sub-contractors which supply the myriad of small components.

The second case study follows the initial attempts, late in the Second World War, to acquire a light fleet carrier and its subsequent rejection. The matter did not end here however, in late 1947 the Chifley government decided to purchase two light fleet carriers from Great Britain. This decision was based on the lessons of the war and the perceived need for what constituted a balanced fleet. The two carriers acquired required extensive modifications in order to operate modern aircraft. The first carrier SYDNEY was delivered as designed, but the second, MELBOURNE, was dramatically modernised. Unfortunately no decision was made to modernise SYDNEY and to her life as a carrier was less than half that required in the original plan. At the end of the book, the editor David Stevens, has inserted a chronology showing the major milestones in the initial decision to acquire HPS and the subsequent cancellation of this project and the phasing off of MELBOURNE in June, 1982. All in all, the book provides an invaluable insight into the acquisition process as well as clearly demonstrating the impact of political decisions on this process.

My mind can only truly focus this book in two areas, the lack of footnotes in the first section, though this is explained in the introduction and secondly, the lack of an index.

All in all this is a very valuable contribution to the available literature on the RAN and the Navy should be complemented for its production.

(Copies of this book are available through the Maritime Studies Program. Department of Defence (CP1-4-41) Canberra ACT 2600)

THE BRITISH BATTLE FLEET: Its Inception and Growth through the Centuries

By Fred T. Jane

Published by Conway Maritime Press Review Copy from DLS

Reviewed by Joe Strzelecki

Within the area of naval history a number of names are instantly recognisable as having contributed to the wider knowledge of national or international naval affairs. This publication brings together two such names. One Antony Preston is such a name, a renowned authority on naval affairs and contributor to a number of international journals. The second name virtually needs no introduction. Fred T. Jane, perhaps one of the most famous navalists of the last 19th and early 20th Centuries. His name continues to be associated with the international naval scene through Jane's Fighting Ships, which he founded and the series of journals published by the Jane's group.

The publication in which he achieved these two names together is the re-print of Jane's The British Battle Fleet Its Inception and Growth through the Centuries. Published in 1912 this book was one of the key texts to analyse the development of the British warship. Though this book may not by today's standards be considered as an academic work it is none-the-less an important work and one which will continue to be sought out and referred to by students of the period.

In The British Battle Fleet: Its Inception and Growth through the Centuries, Jane traces the development of British warships and their associated technological changes. He succinctly describes the development of the ships as well as some of the social changes which occurred during this period. The more revealing point is how the development of the ships has shaped the nation. The book includes a wealth of data and includes personal recollections, some of which may be considered as today's Commercial Support Program. Hopefully after 310 years things has improved.

Jane is possibly one of the few authors who can place the design and construction of CERBERUS into its true historical context. The vessel designed by Sir EJ Reed was the basis of modern warships up to and beyond the famous DREADNOUGHT. In essence, everything that DREADNOUGHT had, CERBERUS had, in smaller scale, some 40 years earlier.

The British Battle Fleet: Its Inception and Growth through the Centuries is a timeless book and one which will provide those interested in naval affairs and naval ship development with a wonderful perspective of contemporary information. This book is strongly recommended for inclusion in naval libraries.

BATTLECRAWVERS

By John Roberts

Published by Chatham

Reviewed by Ross Gilliet

Steaming at high speed through a North Sea swell in 1917 Fisher's Splendid Class destroyers were indeed a splendid sight

So reads the first narrative in the new Chatham publication Battlecruisers, describing HMS TIGER, PRINCESS ROYAL and UJ Don in steaming in company during the latter stages of the First World War.

Designed with the speed of a cruiser and the firepower of a battleship, the first battlecruisers spanned the nations during the First World War. From 1908 to the late 1940s, this new work concentrates on their origin, design, the ship's early years in service and the all-important technical side of the various classes, from INvincible (1908) to HOOD (1920). Also included in this timeframe are the large light cruisers COURAGEOUS, GLORIOUS and FURIOUS.

Each ship's development is well documented, with superb perspectives and cutaway drawings of each class.

BATTLECRAWVERS is the second in the new shipscale series (after The First Destroyers) from Chatham Publishing. A wonderful book which is highly recommended.

JANES WAR AT SEA 1897-1997

100 Years of Jane's Fighting Ships

By B. Ireland and Eric Grove

Published by Harper Collins

Reviewed by Ross Gilliet

The name Jane is synonymous with many things naval and has now been so for over one hundred years.

To mark the centenary of Jane's Fighting Ships, the Harper Collins group has released the impressive Jane's War at Sea 1897-1997. The book is written around the development of the warship during the past 100 years, centred upon the major eras and warship types, from battleships and aircraft carriers, through to torpedoes and amphibious ships.

The book features hundreds of high quality photographs and nomenclature, all printed on glossy paper. Unfortunately for this reviewer, the narrative made to be too small for any amount of detail.

The compilation of a book such as this is a daunting task, thousands of ships, numerous developments and alterations to the warships. To their credit the authors have presented the general reader with a well balanced, by ship type and national naval overview of the 100 years covered by the book's side-tide.

AUSTRALIAN SEAPOWER Photofile No. 6 - FRIGATES

Published by Topmill Books

Reviewed by Mike James

Cost: $9.95

The Australian SeaPower Photofile series, published by Sydney's Topmill Books, has provided a convenient and economical resource for the maritime enthusiast and layman alike.

FRIGATES continues this worthy tradition, covering the many and various classes of escorts that have operated in Australian and New Zealand waters.

The book is planned to cover the corvettes, anti-submarine and mine warfare ships. FRIGATES is available through better newsagents for a recommended retail price of $9.95.

Notice is hereby given that the

ANNUAL GENERAL MEETING

of

THE NAVY LEAGUE OF AUSTRALIA

will be held at the Brassey Hotel, Belmore Gardens, Barton, ACT

On Friday, 13 November, 1998 at 8:00 pm

BUSINESS

1. To confirm the Minutes of the Annual General Meeting held in Canberra on Friday, 14 November, 1997

2. To receive the report of the Federal Council, and to consider matters raised therefrom

3. To receive the financial statements for the year ended 30 June 1998

4. To elect Office Bearers for the 1998-99 year as follows:

   - Federal President
   - Federal Vice President
   - Additional Vice Presidents (3)

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

5. General Business:

   - To deal with any matter notified in writing to the Honorary Secretary by 2 November, 1998

   - To approve the continuation in office of those members of the Federal Council who have attained 72 years of age, namely Arthur Hewitt (WA), Joan Cooper (Tas) and Merryn Cooper (Tas)

ALL MEMBERS ARE WELCOME TO ATTEND

By order of the Federal Council

Don Schrapel, Honorary Federal Secretary, PO Box 309, Mt Waverley VIC 3149

Telephone (03) 9888 1977 Fax (03) 9888 1003
STATEMENT of POLICY

Navy League Of Australia

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, strength and safety depend to a great extent on the security of the surrounding ocean and island areas, and on seaborne 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 a defence capability which is knowledge-based with a prime consideration given to intelligence, surveillance and reconnaissance.

- Believes there must be a significant deterrent element in the Australian Defence Force (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 Air Force and highly mobile Army, capable of island and jungle warfare as well as the defence of Northern Australia.

- Supports the acquisition of AWACS aircraft and the update of RAAF aircraft.

- Advocates 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 states in our area.

- Advocates the transfer of responsibility, and necessary resources, for Coastal Surveillance to 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 in the Southern Ocean.

- Advocates the acquisition of the most modern armaments and sensors to ensure that the ADF maintains some technological advantages over forces in our general area.

- Advocates measures to foster a build-up of Australian-owned shipping to ensure the carriage of essential cargoes in war.

- Advocates the development of a defence industry supported by strong research and design organisations capable of constructing all needed types of warships and support vessels and of providing systems and sensor integration with through-life support.

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 to ensure that, in conjunction with the RAAF, this can be achieved against any force which could be deployed in our general area.

- Believes it is essential that the destroyer/frigate force should include ships with the capability to meet high level threats.

- Advocates the development of afloat support capability sufficient for two task forces, including supporting operations in sub-Antarctic waters.

- 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 that in any future submarine construction program all forms of propulsion, including nuclear, be examined with a view to selecting the most advantageous operationally.

- Advocates the acquisition of an additional 2 or 3 Collins class submarines.

- Supports the development of the mine-countermeasures force and a modern hydrographic/oceanographic fleet.

- 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 Naval Reserve Cadet 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 current economic problems and budgetary constraints, believes that, given leadership by successive governments, Australia can defend itself in the longer term within acceptable financial, economic and manpower parameters.
Computer generated image of the Royal Australian Navy LPA, HMAS MANOORA, under conversion at Newcastle in New South Wales. (RAN).
The new Collins class submarine WALLER arriving at HMAS STIRLING on 21 July for pre-commissioning trials off the West Australian coast. WALLER will be based at STIRLING after commissioning in early 1999 (ABPH Stuart Farrow RAN).
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