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Federal President Retires

Commander Frank Geoffrey Evans OBE, VRD, RANR (Retd)

GEOFFREY EVANS' retirement from the position of Federal President of the Navy League of Australia on 31 December 1994 marks the conclusion of a very long period of unselfish commitment to the League and, through that, to his country. His careful and diplomatic approach coupled with his diverse range of contacts have been invaluable to the League.

During his time in office, Geoffrey has led the League through a long and demanding period of administration of the Sea Cadet Corps, the transfer of that administration to the RAN, and the development of the League's role in presenting to the public the need for Australia to have a strong maritime defence.

Geoffrey Evans has devoted nearly half a century of his life to the Navy League of Australia. He became a member of the Federal Council in 1950, President of the Victorian Division in 1967 and, for the last 23 years, he has been Federal President.

He joined the RAN as a sailor in 1941 and served at sea in the armed merchant cruiser HMAS MANOORA and in the Tribal class destroyer HMAS WARRAMUNGA. In 1945, he was commissioned as a Sub Lieutenant (St). He served as Secretary to the NOIC Queensland until he was discharged in

1946. While on service, he was present both during the first Japanese attack on Singapore in December 1941 and the Japanese submarine attack on Sydney Harbour.

In civilian life Geoffrey Evans ran the family fine chemical company but retained a strong association with the RAN. In addition to periods of service as Private Secretary and Naval ADC to two Governors of Victoria, he served as Senior Officer, Victorian Division, Sea Cadet Corps from 1953-75.

Admiral Sir Victor Smith, who was Chairman of the Chiefs of Staff Committee when Geoffrey became Federal President, sent this message on the occasion of Geoffrey Evans' retirement.

It goes without saying that the Navy League owes Geoffrey Evans an enormous debt and very few people would be aware of the tremendous effort he has put in as President.

It will be a great loss to be without him as President but these things happen. I wish Geoffrey all the best for the future and I wish the incoming President all success.

Geoffrey becomes chairman of the League's Federal Advisory Council and is succeeded as Federal President by Graham Harris, President of the Victorian Division of the League.

- reducing training costs to a level no higher than community standards;
- entering into an industrial peace accord.

In response to the unions' proposal to develop a consortium to acquire a majority interest in ANL, the Government is prepared, subject to party policy and following implementation of the industry reforms, to establish an open tender process for the sale of ANL. Subject to a viable consortium being successful, the Government would retain a minority shareholding, would support an employees' share ownership plan and would guarantee ANL debt on a transitional basis.

The Government reaffirms its commitment that a sale would be conditional upon retention of the Australian flag, Australian crews and Australian award conditions.

The Government remains committed to supporting existing cabotage arrangements and the existing single voyage permit system.

There will be consultation with industry participants to determine the most appropriate course of implementing this agreement.

The unions will recommend to their members that they will return to work.

A "Facilitator" is to be appointed to oversee the negotiations.

The former chairman of the ANL, Mr W.M. Bolitho, who with his Board was dismissed prior to the strike and replaced by a former NSW Premier, Mr Neville Wran and three others, issued a lengthy statement rebutting the principal allegations made by the Federal Transport Minister concerning the direction and financial state of the ANL.

Hopefully a realistic Australian shipping policy will emerge in the course of time, but it is difficult to avoid the impression the whole affair has been handled very badly by the government.

Geoffrey Evans

Geoffrey EVANS
Federal President
The Navy League of Australia

viewpoint

FROM OUR READERS

Dear Sir,

In the October issue of *The Navy* an excellent viewpoint was published on the fate of the Australian National Line (A.N.L.), however one small point needs correcting.

Whilst ANL was formed in 1956 it was not the Government's first venture into shipping since the Australian Line of Steamers.

In 1946 the Australian Government formed the Australian Shipping Board (ASB) as a merger of the following:

Shipping Control Board
Commonwealth
Government Ships Chartering Committee

Central Cargo Control Committee

Commonwealth Marine Salvage Board.

The ASB's function was to operate and manage all Australian Government owned vessels, and as such ownership of these vessels was transferred to the newly formed ASB. Prior to this Government owned vessels had been managed by other

Australian shipping companies on behalf of the Government. It will no doubt be remembered by most seafarers and ship lovers that a large portion of the ASB's fleet were the thirteen River Class standard steamers, these vessels being built either during or just after the Second World War.

On the 1st of October 1956 the ANL was formed to rationalise further the Government's shipping operations and ownership of all ASB vessels was transferred to ANL.

Apart from this one point I can only applaud your comments and echo the remarks that as an island nation with vast mineral wealth we should own a large merchant fleet. This can only assist to reduce our balance of payments by keeping freight in Australian hands and not those of untaxed third world operators.

Yours sincerely,
Robert Young
Floraville 2280



MYSTERY SHIP! Reader Ken While from Brisbane sent in this photograph taken on 17 March 1944, depicting the vessel of the Senior Naval Officer, Landing Operations - 6th Division. Can any reader identify the vessel?



Another mystery boat. Naval historian Trevor Weaver sent in this photograph ... could it be a rebuilt KOORONGA - Editor.

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Thoughts on ... THE BOULTON LECTURE

"THE DEFENCE OF MERCHANT SHIPPING - WHERE TO FROM HERE"

By RADM Andrew Robertson
Federal Vice-President Navy League of Australia

The 1994 Boulton Lecture, presented by the Company of Master Mariners of Australia with the support of the Navy League (NSW Division), was delivered by Captain K H Ross, the recently retired Chief General Manager Towage and Salvage Division of Howard Smith Industries Pty Ltd, at the Masonic Centre Sydney on Thursday 18 August.

The subject of the Lecture was "The Defence of Merchant Shipping - Where To From Here" and some 130 people attended including officers of the current course of the RAN Staff College.

An address in reply was delivered by the Deputy Chief of Naval Staff, RADM David Campbell AM who spoke on the naval view of this important matter.

Following a much enjoyed supper break, a panel discussion was held, chaired by RADM Robertson. This was followed by closing remarks by the Admiral and Captain Norm Mackie, Sydney Branch Master of the Company of Master Mariners of Australia.

In broad outline, the theme of the Boulton Lecture was that the RAN is now too small to be able to provide a reasonable level of defence of Australian merchant shipping in time of hostilities (taking into account its other tasks); that the crews of merchant ships are now so reduced that they have little capability to assist in defending themselves; that the lack of radio officers means that communications between warships and merchant vessels will be more difficult; and that the two services have drifted apart over recent years, with an apparent lack of contact.

Consideration should therefore be given to having the means to equip adequately merchant ships for defence. Naval and merchant personnel should be able to work together in the normal course of their duties and this must be fostered.

In reply, Admiral Campbell made the point that the historical and traditional view of the importance of merchant shipping to Australian defence was not so relevant in 1994. However the protection of shipping, offshore territories and resources is potentially the most demanding task facing the Australian Defence Force and could require the sustained deployment of forces over extended distances. He accepted that Australia suffered from a low "force to space ratio" and that in time of conflict

the RAN will potentially have to defend a series of harbours and anchorages, offshore oil and gas fields, shipping lanes, and the economic exclusion zone, as well as protect the shipping transiting to, from and within Australian waters. He queried, however, whether we faced an insurmountable problem.

We don't face the sort of threats of World War 2 and the Strategic Review 1993 paints an entirely different picture. Since 1986 Australian strategic guidance has had a very strong maritime flavour. Although there are uncertainties in our region, the fact remains that our region is fundamentally benign. Australia cannot prepare for every eventuality but our current defence planning is focused heavily on threat perceptions that we believe are realistic and can withstand rigorous intellectual scrutiny.

Admiral Campbell stated that regarding submarine warfare in our region of direct strategic interest only one country - Indonesia - has a submarine capability, operating two type 209 submarines. Clearly, even if Indonesia had the intent to wage a campaign similar to Doenitz's against Australian merchant shipping they do not have the capability. Another world war at this point in time is not a credible contingency. It is not our government policy any longer to send Australian troops to fight overseas in the context of any notion like Imperial Defence. UN peace-keeping operations are radically different.

The force structure of the Australian Defence Forces is focused on providing a defence of Australia against short-warning conflicts. Threats in this sort of environment may include:

- Small lodgements of enemy forces on Australian soil;
- Mining of Australian waters - either harbours or shipping lanes;
- Infringements upon the EEZ or Australian coastal waters;
- Harassment of offshore resource fields; and
- Destruction of beacons and other navigational aids.

This list is by no means exhaustive; a detailed breakdown of the threats envisaged in the context of a short-warning conflict will be outlined in the forthcoming Defence White Paper. However, its predecessor in 1987 argued that even these short-warning conflicts would be very demanding for the maritime component of the ADF. The White Paper stated:

Our force structure priorities are guided by the more credible situations requiring the protection of shipping in coastal waters and in our local areas and ports. We require significant forces to defend against this contingency, which would be very demanding for our maritime forces because of the distances involved and the dispersion of our local areas.

In this environment, a naval strength of 17 major surface combatants (3 DDGs, 6 FFGs, and 8 Anzacs), complemented by the enhanced capabilities envisaged for the Fremantle class patrol boat replacements - currently designated as Offshore Patrol Vessels - should provide ample maritime support to combined operations. This is without taking into account the maritime strike capabilities of six Collins class submarines, F/A-18 and F-111 strike aircraft, and even P3Cs equipped with Harpoon missiles.

The government's first priority in the Force Structure Review was mine countermeasures. As well, over \$1 billion will be invested in procuring six proven Italian designed minesweepers and upgrading the facilities of the mine warfare centre at HMAS Waterhen.

Admiral Campbell then outlined the great difficulty of arming merchant vessels for defence in modern warfare noting the complexity and cost of the equipment needed.

"Ship's defensive measures are far more complex now than in 1944. They include a combination of sensors, fire-control systems and weaponry. For example the Phalanx close-in-weapons systems fitted to our

FFGs is a self-contained unit boasting tracking and targeting radars, as well as its multi-barrelled minigun. However, aside from its auto mode, it can also be used in conjunction with the information being analysed in the ship's operations room. Here, data taken from all the ship's sensors, whether active, as in the case of the air-search radar, or passive, as in the case of the SLQ-32 electronic support measures system, can be used to detect and analyse the threat, say, an air-launched anti-ship missile. The command team must then make a rapid decision to engage the missile with a missile of their own, fire at it with their main armament, commence evasive manoeuvring, engage it with CIWS, attempt to decoy it by firing chaff or, in the most likely chain of events, a combination of all these actions. Regrettably the solution of arming merchant vessels is an impractical one. I wish the solution were that simple, however, in reality, your vessels are large, unmanoeuvrable targets that would be difficult to miss with today's technology."

He then went on to highlight the fact that Australia would not simply adopt a defensive posture. The strategic guidance also supported this potential course of action.

While the broad political considerations might caution against a policy of retaliation, its prospective advantages, both as a means of deterring an attack, or if that fails, deterring escalation, reinforce the need for capabilities providing the option for a retaliatory response.

Admiral Campbell agreed that there were problems in communications between warships and merchant vessels and that there was some drifting apart of the two services. He outlined the reasons for this and the measures now being taken, particularly with Reserves. A detailed briefing on piracy was being arranged for the Australian Shipping

Defence Council in December. Piracy was an important issue, and one that the Navy was keen to address in consultation with our neighbours to the north.

In conclusion he alluded to the assertion of Captain Ross that he did not think the Australian Navy had sufficient resources in ships or personnel to adequately protect merchant shipping and carry out other tasks assigned to it in the Strategic Review. This may be so, but in Admiral Campbell's opinion we are not doing too badly.

"The modern era is different to WWII. Yes, the region is largely benign. Yes, there is uncertainty everywhere. But our preparedness and readiness have never been better - and No, we are not guilty of preparing to fight it like the last war."

"The next war will be who can say! But it will not be plodding convoys to Murmansk or island-hopping in the Pacific. But, as it has been since the beginning, it is bound to have a high cost in the blood of merchant and naval seamen alike."

The lively panel discussion which followed supper produced a large number of questions expanding on many of the points made and concentrating largely on the Naval presentation and piracy.

There was concern at the downgrading of the apparent importance of anti-submarine warfare in view of the submarine capabilities of a number of countries bordering the Indian and West Pacific Oceans, and the impossibility of foretelling the future.

In the closing remarks a number of important aspects were raised.

The defence of merchant shipping has always been a central role of naval forces from Roman times. Sometimes this has been achieved by arming merchant ships, sometimes by convoy and escorting, and often by a combination of measures. We should not forget the submarine activity around our coasts in WWII and its major effect on defence measures. There was concern at the

danger in over-emphasis on the value of diversionary routing, and at the serious effect on the Australian economy which would occur with the loss of only a few of our coastal ships.

The major RAN deficiency seemed to be a shortage of hulls and there seemed a good case to ensure that the projected Offshore Patrol Vessels included in their capabilities that of convoy escort as was done so successfully with their WWII equivalents, the corvettes (AMS).

There seemed a desirability of defining "Strategically important shipping" and ensuring we had the capabilities to protect such shipping. In this regard the major role of the RAAF must not be forgotten. There seemed much importance in area control in view of the shortage of hulls for individual escort.

There was much concern at the downgrading of ASW on the basis that the last Strategic Review seemed far too narrow in defining Australia's Area of Direct Strategic Interest. It thus ruled out the capabilities of major Indian Ocean and Western Pacific maritime forces. It seemed inconceivable that there could be a major upheaval in SE Asia without involving in some way the interests of India, China or Japan or all three. Though all are benign at present and all are our friends, future alignments and developments could not be foretold.

The need to improve co-ordination and understanding between the Navy and Merchant Marine was fully supported and it was suggested that in order to combat piracy, as well as international action, some form of "riding shotgun" defensive parties may need to be considered if the situation deteriorated seriously. There was also a call to consider a naval presence in the Australian Maritime College to facilitate liaison.

Altogether the Boulton Lecture provided an occasion to air a matter of much concern to all who have an interest in the maritime aspects of the defence of Australia.

THOUGHTS ON ... THE BOULTON LECTURE

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ANZAC Launching

By Antony Underwood

ANZAC - first of class of new Australian and New Zealand ships - slipped eagerly into the water off Transfield's Williamstown shipyard on September 16.

Chief Executive Officer of Transfield Shipbuilding, Dr John White, called for three hearty cheers from an enthusiastic crowd after ANZAC had assumed an impatient mind of her own early in the launch ceremony.

With Transfield's shift horn blaring and company riggers throwing streamers from the bow towering above the dais, ANZAC III slipped easily into Port Phillip Bay to be "rounded up" by tugs loitering at a respectful distance from the slipway.

She rode easily on the gentle swell, high in the water with some 1500 tons of completion material and equipment to be added before sea trials begin.

Her entry to Port Phillip was followed by two thundering flypasts by four S70B2 Seahawk helicopters from RAN 816 Squadron, one on either side of a sparkling aerobatics display by the seven Pilatus PC9 aircraft of the RAAF Roulettes precision aerobatics team.

Groans

The significance of ominous groans and creaking from the launch cradle from the start of the ceremony was not lost on Dr White or the thousands who attended the launch.

With the bow of the ship towering above the dais, Dr White introduced the Chief of Naval Staff, Head of Transfield and Mr Keating.

Chief of Naval Staff VADM Rod Taylor

briefly traced the history of the two ships which previously bore the name, first the 1600 ton destroyer leader presented to Australia by the United Kingdom in 1919 and then the 3500 ton Battle Class destroyer launched at the (then) Williamstown Naval Dockyard on August 20, 1948 which served two tours of duty in the Korean War and in the Malayan Emergency.

It was as a training ship, however, that ANZAC II was remembered by presently serving members of the RAN: many senior officers of today's RAN had their first sea going experience onboard her and VADM Taylor served as Navigating Officer in ANZAC II in the period 1962-64.

Technology

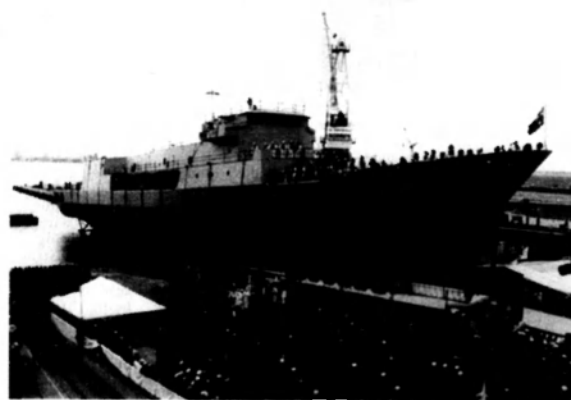
He said choice of the name ANZAC - with the motto *United We Stand* - symbolised the continuing commitment of Australia and New Zealand to regional security.

It was entirely fortuitous also VADM Taylor added, that LTCOL Vivian Statham - better known as Sister Bullwinkel - who had displayed such strength and compassion as a nurse captured by the enemy during World War II, should play such an important part as launch lady for the ceremony.

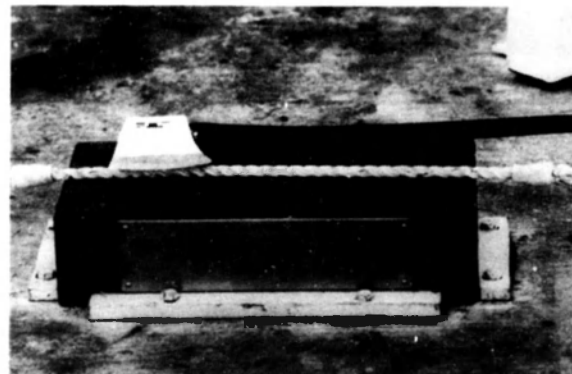
"On behalf of your Navy, I look forward with high expectations towards accepting this ship into service".

One of the two joint chairmen of Transfield, Mr Franco Begiorno-Nettis, traced the establishment of the company when he and fellow engineer and chairman, Carlo Salteri, arrived from Italy in 1951 to build power transmission lines in the field to brighten the future of communities which had been plagued by blackouts, spread across the vast distances of Australia.

"Now we have this combination of steel and technology becoming a ship - almost a sculpture ... a living sculpture," he said. "It is a great day."



ANZAC on the slipway prior to launching. (Photo - NPU).



The ANZAC launch block. Launching dates for the other units of the class will be inscribed into the timber as the ships are completed. (Photo - NPU).

ANZAC LAUNCHING

Achievement

Transfield has Construction and Technologies Divisions as well as one for Shipbuilding and construction sites in Newcastle, Adelaide, Cockburn Sound (WA) and Whangarei in New Zealand's North Island. It employs more than 6000 people including more than 2000 in Victoria alone.



ANZAC enters the waters of Port Phillip for the first time. (Photo - NPU).

"We build good ships," he said proudly, "at a profit if we can, at a loss if we must."

The Prime Minister described the launch as a great day for Australia and New Zealand.

"The class of ANZAC ships not only underlines the shared conditions of sovereign nations but shows as a product of both - a collaborative project between Australia and New Zealand," he said. "It underlines both countries' belief in their shared destiny and that no task is too technically difficult."

"It also underlines that Australia and New Zealand are technically sophisticated countries and that we can do things other countries can do. Part of this is to build and furnish our own weapons and systems to go with them."

This achievement, Mr Keating said, should make Australia a more confident, assertive country able to compete with the best in the world.

He noted that the ANZAC ships are being constructed in the modular form - in line with the modern notion of shipbuilding - with superstructures being constructed in New Zealand, some modules in Newcastle and gearboxes assembled in Wollongong all being brought together for final assembly as ANZAC ships at Williamstown.

The Prime Minister congratulated Transfield staff - "the men and women who have given so much of themselves" - Blohm and Voss of Germany whose Meko 200 design is the basis of the ANZAC ships, and CelstusTech of



Navy Seahawk is fly overhead in a salute to the new ANZAC. (Photo - NPU).



Tugs from Melbourne come alongside to move ANZAC to her fitting out berth. (Photo - NPU)



HMAS SYDNEY passes her new "running mate". (Photo - NPU).

ANZAC LAUNCHING

Sweden for the command and weapons system.

Known as a man to have his say, the Prime Minister recognised that the 2035 tonnes of steel towering above his head were on the point of rapid escape towards the water. He cut short his remarks with the smiling observation that "this bit of moving sculpture ... seems to want to move".

Principal Naval Chaplains led prayers and pronounced an ecumenical blessing over ANZAC before also curtailing their part in the ceremony - short of singing the Navy Hymn - to allow Launch Lady LTCOL Statham to perform her brief but important duties.

She swiftly named the first of the ANZACs, smashing the champagne bottle against the bow and calling "God Bless Her and all who sail in her" as the irresistible force gathered momentum to plunge into her natural element.



Close up view of the new frigate. (Photo - NPU).

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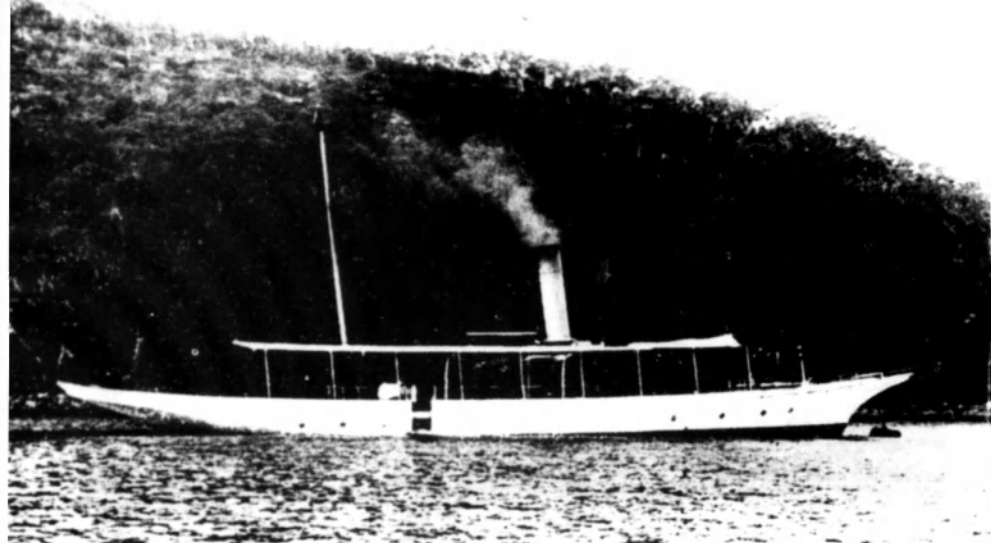
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"A RECOMMENDED SERVICE"



The steam yacht ENA, when owned by Mr T.A. Dibbs.

ENA

By Alan Deans - Photography by David Moore

On 8 October 1994, Hamilton Publishing of Sydney released the new book, *ENA*, the story of the 1900 vintage steam yacht of the same name, launched in Sydney in 1900 and commissioned by the Royal Australian Navy in 1917.

Renamed HMAS SLEUTH and converted to a patrol boat for service in the Torres Strait, the 108 ton craft was armed with a lone three pounder gun and painted the traditional naval grey. However, the story of this remarkable steam yacht was more than her three short years in commission with the "senior service".

Author Alan Deans has thoroughly researched the career of this now 85 year old veteran, the resultant book, costing \$49.50 and spanning more than 80 pages of narrative is accompanied by numerous historical and restoration illustrations.

From the camera of well known photographer David Moore, the book is brought to life via a series of more than sixty black and white and colour images, all reproduced on the finest stock of quality paper. David approached, followed, searched through, walked under and flew over all parts of the ENA in a successful photographic task to capture the beauty and spirit of the yacht, the resultant illustrations bringing the ship to life in almost every nautical aspect.

The following article on the ENA ex AURORE, ex HMAS SLEUTH, ex ENA was prepared by the author for *The Navy Magazine*.

EDITOR

reserves under the command of Lieutenant James Capstick-Dale. Sleuth was ordered to intercept traffic passing through the strait and to inspect their mail. Anything suspicious was to be reported by telegraph.

Sleuth may have provided peace of mind for a worried Naval Board, but she offered precious little else. Frequently she ran aground on the uncharted coral outcrops which proliferate in the straits, and she and her crew became the butt of jokes among those garrisoned at Thursday Island. Within months of arriving, Capstick-Dale sent two urgent signals to the commodore at Garden Island. The first said that Sleuth could not keep course thanks to the dangerous tides and winds, and he asked that the patrol duties be assumed by a "tall bodied motor vessel with high speed". The second signal indicated that the crew were on the brink of mutiny and had refused to go to sea because "the ship is totally unsafe". He asked that the reserves be replaced by permanent ratings.

The commodore, however, had other more urgent matters on his mind. The island trader Matunga had mysteriously disappeared on a trip to Rabaul, and there was evidence that a German raiding vessel, Wolf, had been in Australian waters laying mines. Sleuth remained on station while a fruitless hunt for both ships was carried out. Eventually,

vessel chosen was banker Sir Thomas Dibbs' steam yacht Ena, 100 feet in length and built for luxurious day trips on Sydney Harbour.

It was a sign of the desperation of the times that Ena, eventually refitted with a three-pound Hotchkiss gun mounted on her foredeck and renamed HMAS Sleuth, was chosen to patrol the treacherous waters of the Torres Strait. Crewed by

Wolf relayed a message about her trip to the Pacific upon return to Germany while captured crew from Matunga told of her demise by throwing overboard notes in a sealed bottle.

The Navy Board's fears about Australia's exposed shores had been substantiated, but they now had to become more serious about their defence plans. Sleuth was ordered back to Sydney, and a coastal steamer Mournian put in her place. Sleuth was made tender to the training ship HMAS Tingira, teaching cadets steering and navigation and towing targets for gunnery practice. But she was shown to be of little use even in these mundane tasks because frequently she broke down. Sleuth was offered for sale and, no doubt, it was a relieved Navy Board which decommissioned her in 1920 when a buyer was found.

Renamed Ena and refitted in her original tinny, she passed through several hands until the early 1930s when a Hobart trader, Captain Walter Driscoll, bought her. Driscoll and a group of local businessmen had plans to use Ena to cart apples and other produce from the Huon and Derwent River valleys, despite the fact that she had little space above or below decks. His plans foundered when a restraint of trade suit was issued by jam-maker Henry Jones & Co. Laid up for years in Hobart, Ena eventually was bought by three brothers who wanted to make their fortune fishing for lobsters and scallops. The Roches replaced the steam engine with a Gardiner diesel, fitted her with water tanks to hold live fish and christened her *Aurore*. She worked successfully in the stormy waters of the Southern Ocean for a succession of owners for 40 years. But, one calm night in the early winter of 1981 while motoring up the middle of D'Entrecasteaux Channel on her way back to port, *Aurore* met her fate for a succession of owners.

Her owners at the time, Noel and Geoff Harper, say it was all over in a matter of minutes. Alarmed by a deckhand who was awoken from his sleep in the fore cabin by a huge thump, Noel Harper found the engine room filling rapidly with water. The crew barely had time to radio for help and heave free the dinghies before she went down in 30 metres of water, the lights burning for a long while after the last ripple had disappeared. The next day, a sea and air search was mounted for signs of *Aurore* and a buoy was spotted under the surface marking where she sank. The Harpers dived down, and found the boat with barely a mark, having keeled over onto her holed port side. They decided that, with the use of buoyancy bags, they would refloat her.

After months of dangerous work during the winter of 1981, *Aurore* was refloated and towed to Victoria Dock in Hobart. News of the sinking and



Three views of the restored ENA. (Above) Underway in Sydney Harbour. (Below) Aerial perspective shows off the boat's fine lines and (Left) ENA's new figurehead.



refloating, meantime, had reached the ears of a Sydney businessman, Pat Burke, who was keen to buy a stately, old pleasure craft. Satisfied as to the pedigree of *Aurore* and happy that she could be repaired, Burke arranged to buy her and she was towed to Sydney.

The restoration took three years to complete. Master boatbuilder Nick Masterman researched Ena's background carefully to ensure that she would be as she was when owned by Dibbs. He found parts of the old vessel in Hobart, stripped off her during the 1940s when converted for use as a fishing boat. A new steam engine had to be made from patterns taken from the disused ferry *Excelsa*, and a boiler fabricated. All of the original wooden, brass and gold-plated fixtures had to be recreated. Dozens of skilled craftsman were employed, and the work co-ordinated in many different foundries, sheds and docks around

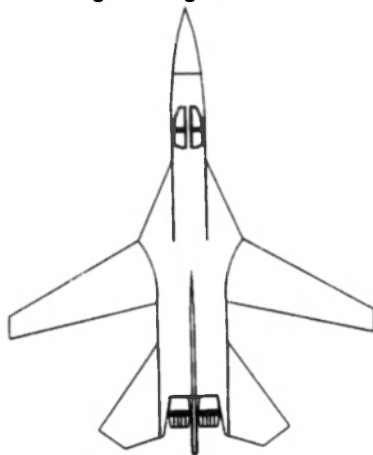
Sydney. The restoration was completed in time for Ena to be part of the official review on October 4, 1986, held to celebrate the seventy-fifth anniversary of the Royal Australian Navy.

But the story does not end there. The stockmarket collapse of 1987 left Pat Burke in dire financial straits, although his two partners in the boat - Rene Rivkin and David Bafsky - pulled through. Ena had been mortgaged to repay funds to Burke's company and, when the loan was defaulted on, she was seized by the bank. An outraged Rivkin tried unsuccessfully to buy her back, but to no avail. Eventually Ena was sold at auction to a private company which today maintains her as an elegant charter boat on Sydney Harbour.

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Collins Class Update

Photographs courtesy of the
New Submarine Project
Taken by
Chris Fields

Top: New Submarine COLLINS,
being fitted out in the yards of the
Australian Submarine Corporation
on 8 October 1994.
Right: An interesting view of section
200 of the third submarine.
Below: The second boat, under
construction inside the huge ASC
building at Port Adelaide.





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End in Sight for Royal Yacht

BRITANNIA will cease to rule the waves in 1997. The Royal Yacht is to be decommissioned after more than 40 years of service and over a million miles at sea.

Making the announcement, Defence Secretary Malcolm Rifkind praised the "outstanding contribution" made by the Royal Navy's oldest active vessel.

He said it reflected the great care and professionalism which the Royal Navy and, in particular, the Royal Yacht's successive ship's companies had devoted to her.

The original decision to build HMV Britannia was taken in 1938. She was to be a vessel fit to carry a King Emperor to his colonies and dominions. Now the Government is to consider the question of whether to replace her at all.

Mr Rifkind said, "The Queen has made it known that in the light of changes in the pattern of Royal visits since the Yacht was built she does not consider a Royal Yacht to be necessary in future solely for the purposes of royal travel.

"Nonetheless, in view of the success of Britannia in her representational role during state visits, and on other state occasions, and of the part played by the Royal Yacht in trade promotion, the Government believes it right to consider, without commitment, whether there should be a replacement at some future

point, together with other options for meeting the tasks presently fulfilled by Britannia."

Feelings at Westminster vary enormously. Mr Barry Field, Tory MP for the Isle of Wight, claimed "Britain without Britannia is like the Tower without the Crown Jewels".

While Mr Alan Williams, Swansea West's Labour MP, said, "At a time when we are cutting defence expenditure and axing hospital beds, the idea of a replacement for Britannia would be too grotesque."

Millionaire businessman Sir Donald Gosling, a former Royal Navy rating and now an Honorary Captain of the Royal Naval Reserve, is reported to be a leading member of a consortium of companies prepared to chip in £5 million each to provide a new royal yacht. He was

making no comment on the speculation.

While recognising the need for change - a £17m rehit in 1996 would only have extended Britannia's seaworthiness for five years - the Royal Family will feel a tinge of sadness at the decommissioning.

The ship has supported state visits to more than 135 countries and has called at 600 ports, as well as acting as a private holiday home for the Royal Family at Cowes Week and during the Queen's annual Western Isles cruise.

The Queen will be consulted on future plans for the yacht. Mr Rifkind said "a useful purpose" would be sought for Britannia.

Speculation has begun that she might be turned into a museum, possibly on the Thames or on the Clyde where she was built.



Royal Yacht, HMS BRITANNIA, at Circular Quay in Sydney. (Photo: RAN)

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NAVAL NEWS

New Helicopter Ship Arrives

HMAS KANIMBLA, the second of the RAN's new Training and Helicopter Support Ships sailed into Sydney Harbour on Friday, 18 November.

young men and women, the arrival in Sydney was the occasion for the long awaited re-union between the crew and their families and friends, after almost ten months in the USA.

In service the ship will have a top speed in excess of 20 knots, embark up to four helicopters and provide onboard accommodation for over 400 persons, plus stowage space for landing craft and military vehicles. It is also planned to establish a 100 bed hospital with the associated surgery and intensive care support.

On 25 November, the THSS MANOORA was formally commissioned as HMAS at a major ceremony

held at the Fleet Base East in Woolloomooloo Bay. The Minister for Defence Senator Robert Ray attended the event to accept the new ship and to officially welcome KANIMBLA into the Fleet, the latter having been formally commissioned in America last August.

MANOORA will remain laid up inactive, until July, when she will begin conversion, with her sister ship, to the new roles.

New Hydrographic Ships



USS FAIRFAX COUNTY arrives in Sydney on 19 September for handover to the RAN. (Photo - Chris Morris/Nautilus)

The 8,300 ton ship had departed Norfolk in Virginia, USA on 18 October are being purchased from the United States Navy, along with her sistership MANOORA (arrived on 19 September).

For Commander Glenn Curran and his crew of 180

In early 1995, KANIMBLA is expected to begin her first training cruise and then participate in exercise Tasman Link with other Fleet units. In mid year she is scheduled to commence a conversion to the role of training and helicopter support ship.

The year 1995 will mark the 75th anniversary of the Royal Australian Navy's Hydrographic Branch. Over the years the RAN manned numerous survey, hydrographic and oceanographic ships. Beginning in 1924 HMAS GERANIUM commenced operations and then in 1925 the first HMAS MORESBY entered service.

Today's "fleet" is led by the veteran HMAS MORESBY (H) operating out of HMAS Stirling in Western Australia, HMAS FLINDERS operating from Cairns and the four newly commissioned survey motor launches, HMA Ships PALUMA, MERMAID, SHEPPARTON and BENALLA, also homeported in Cairns.

The Navy is currently in the process of investigating how best to replace the older tonnage, with the project team formed for four years to develop plans for the next generation survey vessel to satisfy this most important naval task.

The decision to build two new hydrographic ships for the Royal Australian Navy was officially announced on 10 May 1994 as one of six major capital equipment projects approved in the 1994-95 Defence Budget. Selection of contending ship designs is currently underway with a decision on the successful ship expected late 1995.

To date three contracts have been let for the development of the competing

proposals including ship specifications, design proposals, etc. Companies contracted at this stage of the project include:

- Transfield Shipbuilding;
- Australian Submarine Corporation; and
- TNH (a consortium comprising Thyssen, NQEA and HDW)

Each of the three proposed designs are for ships of approximately 75 metres in length and a displacement of 2500 tonnes. Each survey ship will embark three 10.7 metre survey motor boats plus one intermediate size helicopter. Both of the new ships will be Darwin based, with a planned operating schedule of 100 days per year per ship. To meet this demanding schedule, three crews will be required to man the two ships.

The three competing proposals will be reviewed with two contracts placed with the successful tenderer, the first for the construction of the ships and the second for follow-on support. The lead survey ship is expected to be delivered in December 1997 with the second in December 1998.

Following the commissioning of the new vessels, HMAS MORESBY and HMAS FLINDERS will be decommissioned in 1997 and 1998 respectively, MORESBY 33 years of service completed and FLINDERS, a quarter of a century.



USS FAIRFAX COUNTY, secured to a naval buoy. Note the size of the bow horns and the single close-in weapons system atop her bridge. (Photo - NPU)



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Mine Warfare Exercise



Auxiliary minesweeper (small) BROLGA. (Photo - Chris Morrison)

Seven of the Royal Australian Navy's mine countermeasures (MCM) vessels sailed from Sydney on 7 November to begin a major exercise off the southern New South Wales coast.

The vessels participated in the MCM fleet concentration period held in the Jervis Bay area from 21 November to 2 December. Exercise Dugong, a combined Australian/American ordnance disposal exercise for the Navy's divers was also conducted.

Under the control of the Commander of Australian Mine Warfare and Clearance Diving Force, Commander Russ Baker, the "fleet" comprised four types of mine countermeasures units:

- two catamaran-hulled minehunters, RUSHCUTTER and SHOALWATER;
- two auxiliary minesweepers (large) BANDICOOT and WALLAROO;



The recently acquired AM(S), BERMAGUI. (Photo - Chris Morrison)

the auxiliary minesweepers (small), BROLGA, KORAAGA and BERMAGUI, and a clearance diving team and shallow water mine countermeasures element.

From 1996, the MCM force in Sydney will be strengthened by the modernisation of the RAN's Mine Warfare Base at HMAS WATERHEN, and the introduction of a mine warfare systems centre. As well, the first of six Huon class coastal minehunters to be built in Newcastle will be completed in 1998.

For the exercise a Forward Support Unit (FSU) and mobile headquarters, comprising 26 containers was established at the Jervis Bay airfield, with the ships operating from both Jervis Bay and Port Kembla. Seventy personnel were based ashore and another 90 in the MCM force afloat.

HMAS PROTECTOR to Deploy for Submarine Trials

One of the less glamorous ships of the Royal Australian Navy, the HMAS STIRLING-based HMAS PROTECTOR has commenced one of the most important tasks in the Navy today, as submarine escort and safety vessel to the first of Australia's new class of submarines, COLLINS.

PROTECTOR sailed from Garden Island on October 12 bound for Adelaide to begin working with COLLINS.

as MV OSPREY, being renamed BLUE NABILLA when purchased by the National Safety Council of Victoria in 1987.

After the demise of the NSC of Victoria the ship was purchased by the Navy on October 18, 1990 and converted to its present configuration.

HMAS PROTECTOR is fitted with a full outfit of equipment to assist in the safe recovery of personnel and equipment in



HMAS PROTECTOR, now South Australian based has been painted naval grey, replacing the former orange and red colour schemes.

The two month deployment was the first of many over the next eight years as she works with each of Australia's six new submarines as they are launched.

Commanded by West Australian Lieutenant Commander Guy Burton, HMAS PROTECTOR displaces 670 tonnes and carries a complement of four officers and 16 sailors.

Constructed by Elder Price (now Stirling Marine Services) in Western Australia in 1984 the ship commenced her career

the event of a submarine accident. This includes an underwater telephone, diving equipment and satellite communications.

Other onboard equipment aboard PROTECTOR includes a remote operated vehicle, sidescan sonar and a portable six man recompression chamber below deck.

The ship also carries an Effer sea crane and a 10 tonne "A" frame to perform heavy lift operations from the sea bed and for the launching and recovery of the ship's boats.

Sandgroper

Three Royal Australian Navy warships carrying almost 800 sailors arrived at HMAS Stirling on October 21 for a three day operational visit.

The ships were the guided-missile destroyer HMAS HOBART, guided-missile frigate HMAS SYDNEY and the WA-based destroyer escort HMAS TORRENS.

The arrival signified the commencement of a height-

ened period of naval activity in Western Australia waters over the ensuing month.

The ships sailed in company with the guided-missile frigate HMAS DARWIN on October 24 to participate in Exercise "Sandgroper '94" from October 24 until November 4. Other units involved were the submarine HMAS ONSLOW, Seahawk helicopters and P3C Orion aircraft of the Royal Australian Air Force and the United States Navy.

New Defence College Opens

The Minister for Defence, Senator Robert Ray, opened the Australian College of Defence and Strategic Studies at Weston Creek, Canberra on 27 October.

The aim of the college is to prepare selected defence and civil leaders for increased strategic, defence and security responsibilities in Australia, Asia and the Pacific.

Participants will come from a variety of backgrounds, both from Australia and overseas will include Australian Defence Force and military officers from countries in the region as well as other security partners.

Senator Ray said, "The college will be an important part of the Government's emphasis on dialogue and enhancing learning within the region."

"It looks to extend

understanding and knowledge of the various social, political, economic and military factors that influence national defence and regional security", Senator Ray said.

The college will provide a 46 week academic program covering: security and defence; international security; policy formulation; organisation and management; Asia and the Pacific; and regional security and cooperation. The first intake of students will be in January.

New Patrol Boat to Tuvalu

Australia has presented a new Pacific Patrol Boat to Tuvalu.

The Minister for Defence, Senator Robert Ray, handed over the Pacific Patrol Boat, named HMTSS TE MATAILI, to the Prime Minister of Tuvalu, the Honourable Kamuta Latasi, at the Tranfield WA Shipbuilding facility on 8 October.

Senator Ray said, "Australia's gift of a Pacific Patrol Boat to Tuvalu will upgrade their national surveillance capabilities, help ensure their national sovereignty and assist in the management of valuable marine resources."

The Pacific Patrol Boat project was established in 1983 to develop, in conjunction with regional countries, a standard design

Patrol Boat and local support infrastructure to help meet the expressed needs of South Pacific Forum member nations for an effective means of protecting their Exclusive Economic Zones.

HMTSS TE MATAILI is the eighteenth boat to be built for the Pacific Forum nations. Previous vessels have been given to Papua New Guinea (4), Tonga (3), the Solomon Islands (2), Republic of Fiji (1), Federated States of Micronesia (2), Kiribati, the Republic of the Marshall Islands, Cook Islands, Western Samoa and Vanuatu (one each)."

The Pacific Patrol Boat Project is the largest Defence Co-operation Project undertaken in Australia and now involves 11 Pacific Island nations and will eventually comprise 20 vessels.

National Reunion for Old Sailors

Long standing mateships forged in the cramped quarters of diminutive Australian corvettes during World War II were re-lived recently at the 9th Annual National RAN Corvettes Association National Reunion held in Perth.

More than 1100 former sailors and their wives attended the National Reunion which ran from October 20-23, the second to be held in WA and sadly, because of advancing years almost certainly the last to be held in the west.

In excess of 20,000 sailors served on the Royal Australian Navy's 56 corvettes, during the

war. Corvettes were used for many tasks including convoy escort work, anti-submarine patrols, minesweeping, surveying, shore bombardment, assault landings, transporting stores/troops.

They saw service in the Indian Ocean, the South West Pacific area, the Atlantic, the Mediterranean, the Persian Gulf and some were present at the Japanese surrender in Tokyo Bay in 1945. Corvettes achieved the RAN's first sinking of a Japanese submarine when HMA Ships DELORAIN, KATOOMBA and LITHGOW sank the I-124 off Darwin in 1942.



Seen alongside in the Swan River at East Fremantle in Western Australia last July were two former Royal Australian Navy Fairmile motor launches. At this time their RAN numbers are unknown.

The W. SELVILLE KENT has been converted to a houseboat configuration while PRINCESS ROYAL (ex-ISLANDER VI) is a former Rollnest Island and Albany ferry. (Photos - Vic Jeffery).

Major Move for Submarine Squadron

A significant milestone in the implementation of Australia's Two Ocean Navy policy was attained on Monday, November 14 with the Official Opening of the new Australian Submarine Headquarters located at HMAS STIRLING.

At the ceremony, the Maritime Commander Australia, Rear Admiral Don Chalmers AO RAN officially opened the two storey building.

In the 27 years since it was formed, the Australian Submarine Squadron Headquarters along with the Commander of the Australian Submarine Squadron and his staff have been located at HMAS Platypus in Sydney.

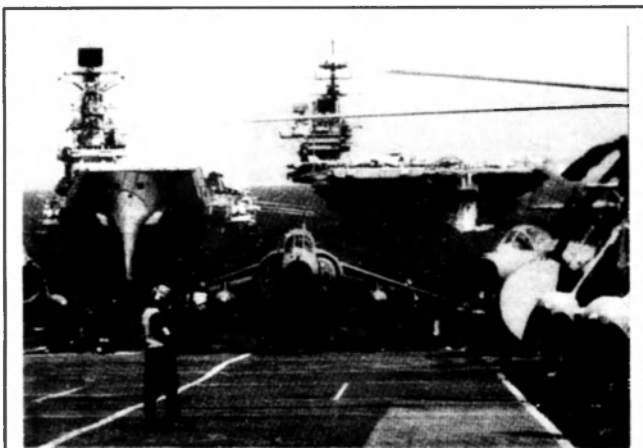
HMAS Platypus, previously the traditional home of Australia's submarines, is being slowly run down and will close with the decommissioning of the last Oberon-class submarine in 1998.

The relocation of the Headquarters was timed to coincide with the commencement of Collins-class trials. Australia's new generation submarines of which all six will be based at HMAS STIRLING.

Two Royal Australian Navy and one United States Navy submarines berthed alongside, with each providing a squad for the Opening Ceremony. A fourth combined squad came from the Submarine Squadron Headquarters and the Submarine Escape Training Facility.



Navy Sea Kings operating from HMAS STIRLING during recent exercises with Fleet units. (Photo - Navy PR)



An impressive line-up of carrier power as the RAN's Spanish ship ASTURIAS and the USN super-carrier, USS SARATOGA, working together for NATO exercise Dynamic Impact, involving 93 warships from eleven nations.

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Nine of the RAN's fifteen Fremantle class patrol boats on exercises in northern Australian waters. Closest to the camera is HMAS CESSNOCK. (Photo - RAN)

Patrol Boats Practise What They Do Best

A large force of the Royal Australian Navy's 15 patrol boats have sailed the waters of North Australia to practise what they do best, the protection of Australia's Exclusive Economic Zone that stretches some 37,000 kilometres around the country and 200 nautical miles out to sea, in a week long exercise that started on Sunday 13 November.

With officers of the Australian Fisheries Management Authority embarked, the Fremantle Class Patrol Boats sailed from Broome, Western Australia, and Darwin and Gove in the Northern Territory. At sea they worked with Coastwatch surveillance aircraft and practised fisheries surveillance techniques in multi-ship situations in the waters right across North Australia.

Commander Warwick Conlin, RAN, the Commander of Australia's Patrol Boat Forces said, "Most of the Navy's patrol

boats have had plenty of recent practise at fisheries patrols and surveillance, but we are always looking at ways to improve the way we handle our increasing workload".

Since early September more than 50 illegal foreign fishing vessels have been escorted into Darwin and Broome for further investigation into possible breaches of Australia's fishing laws.

"During the exercise we not only looked at fisheries surveillance but the way patrol boat Captains and their crews handled their ships in multi-ship situations ... it's like being part of a precision driving team, you have to know what your limitations are, what is happening around you, and how to handle it", Commander Conlin said.

The protection and management of the fisheries aspect of the Australian Exclusive

Economic Zone is the responsibility of the Federal Government agency, the Australian Fisheries Management Authority. Customs Coastwatch co-ordinate the surveillance of the EEZ with Navy acting as their response arm.

The exercise concluded on 18 November as the patrol boats returned to Darwin for the all

important performance evaluation of the weeks concentrated efforts.

The participating patrol boats were HMA Ships DUBBO, CESSNOCK, LAUNCESTON, GEELONG, WOLLONGONG and GAWLER from Darwin, HMAS IPSWICH from Cairns and HMAS GERALDTON from Rockingham WA.



The new \$12 million magnetic treatment facility (above) was handed over to the RAN at HMAS STIRLING on 3 June. The all timber facility, measuring 150m by 30m also provides a vessel degaussing coil prediction function. (Photo - Navy PR)



The explosion and resultant fireball ripped through DERWENT's former Seacat magazine. (Photo - Navy PR)

Finale for Derwent

By Vic Jeffery

One of the highlights of the ten week series of destructive tests being carried out on the former Royal Australian Navy destroyer escort Derwent occurred in naval waters off HMAS STIRLING on Monday, October 17.

A SM-1 Standard missile 35kg warhead was detonated in the former Seacat magazine aboard Derwent to simulate the impact of a missile on the ship and allow the evaluation and measuring of the extent of resulting damage.

The series of destructive tests, known as the Ship Survivability Enhancement Program, was a joint Royal Australian Navy/ Defence Science and Technology Organisation undertaking.

The blast, smoke, fire and fragmentation tests were planned to assist ship design and construction and was aimed at containing battle damage and enhancing the survivability of naval ships.

This was the first time a decommissioned Australian warship had been used for this purpose and attracted interest from the United Kingdom, Canada and the USA.

A highly specialised team of 50 DSTO scientists supported by naval personnel, some of whom are former Derwent crew members, conducted the program.

The following data describing the SSEP (Ship Survivability Enhancement Program) is reproduced courtesy of the



The actual moment of detonation, shows a door in the air after being blown off the vessel. Pieces of metal have already landed in the water.

Defence Science and Technology Organisation.

The Ship Survivability Enhancement Program

The Ship Survivability Enhancement Program (SSEP) is a bold new project of the Defence Science and Technology Organisation (DSTO) and Royal Australian Navy (RAN). The program consists of a series of fire, smoke, weapons effects and electronic experiments which will be conducted on the ex-Naval ship, Derwent. The SSEP represents the first time that experiments of this kind are being conducted on a near operational ship. This unique program will generate a number of benefits for Australia's defence and for the wider community. The major outcome - and the focus of attention for over 50 DSTO personnel working on the

program - is to assist the Navy to enhance the combat survivability of ships and their crews to a range of weapons and associated threat effects. These threats include electronic interference, explosive projectiles, anti-ship missiles and limpet mines.

About HMAS DERWENT

Built in Victoria's Williamstown Naval Dockyard,

Derwent was launched in 1961 and commissioned into the RAN on 30 April, 1964. Now 30 years old, Derwent has been paid off to release the ship's company for the manning of the first of Australia's new generation of Anzac-class frigates. Derwent's crew comprised some 220 officers and sailors and the ship was originally part of a class of six vessels designated Destroyer Escorts. Former members of Derwent's crew have joined Navy personnel in supporting the SSEP and ensuring its success.

About the Experiments

The experiments will be carried out on the Derwent at the Royal Australian Navy's Fleet Base West at HMAS STIRLING. The program is spread over a 10 week period and is divided into four series - the fire and smoke, blast and

fragmentation, limpet mine and electronic warfare series.

Fire Series

The aim of this series of experiments is to gain a better understanding of how fires behave onboard ships.

The series involves the generation of fires onboard the Derwent using simulated missile impacts. Under investigation are the severity of such fires and their spread characteristics, particularly as a result of unspent rocket fuel.

The fire protection provided by insulating glass/plastic wall materials and coatings will be compared to existing steel walls.

Blast and Fragmentation Series

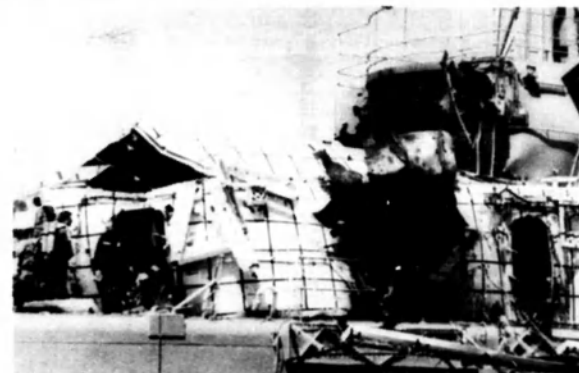
In this series, the Derwent will be subjected to a range of explosions which will simulate the effects of missiles.

The recorded results of these explosions will be used to test methods for predicting damage levels and to more accurately identify safety hazards for the crew.

Smoke Series

Smoke and high temperatures associated with fires onboard a ship present one of the most significant hazards to crew.

FINALE FOR DERWENT



Naval personnel inspected the buckled Seacat magazine. The black and white grids painted on the ship were for the benefit of scientists from the DSTO to assist with their measurements. (Photo - RAN)

The Smoke Series involved generating smoke from fires of varying severities in a compartment on Derwent and recording the behaviour of the smoke.

The data will be used to predict the likely hazards to crew in real fires and to improve crew training in combating such hazards.

Electronic Warfare Series

The Electronic Warfare Series is an additional series of tests designed to extend knowledge of the transmission of electro-magnetic radiation across sea water. Results emerging out of this series will be used to test theoretical models.

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SAS DRAKENSBURG. (Photo: Alan Du Toit)

The South African Navy AN UNCERTAIN FUTURE?

By Mike James

Much like the nation that it serves, the South African Navy (SAN) faces a turbulent future. Beset on the one hand by looming obsolescence amongst its front line forces, and on the other by a contracting defence budget, the SAN must strike a difficult balance to ensure its survival as a viable blue-water navy.

Faced with an electorate largely made up of formerly disenfranchised black voters demanding their own share of a "peace dividend", the new coalition government led by Nelson Mandela is being forced to pare back non-essential government spending to finance a massive infrastructure program. Designed to alleviate the worst of the poverty afflicting so much of the black community, the costs of reconstruction are having a serious effect on the South African Defence Force. The South African Navy is not immune to these pressures.

Responsible for almost 3,000km of coastline and a further 1,000,000 square km of Exclusive Economic Fishing Zone (EEZ/EEZ), the SAN is required to monitor fishing grounds, off-shore oil and gas facilities as well as the vast number of vessels of all nationalities which round the Cape of Good Hope annually. In addition the SAN is undertaking a number of regional co-operation roles in conjunction with South Africa's neighbouring states.

The Navy retired the last of its major warships, the 2800 ton British built Type 12 frigates PRESIDENT PRETORIUS and PRESIDENT STEYN in 1991, leaving it without true blue-water combatants.

The nine Israeli designed 430 ton Minister class missile-armed patrol boats were commissioned in 1977/86. Based on the Israeli Navy SAAR IV class and armed with Skerpioon missiles and two OTO Melara 76mm guns, they have given good service. However they were designed for the more sheltered waters of

the Mediterranean and are generally acknowledged as not totally suitable for the often very rough seas encountered off the Cape of Good Hope. A major ship-life extension program has begun to extend their useful lives until replacements can be obtained, comprising an upgrade to communications, sensors, fire control systems and engine room monitoring systems. The first boat, FREDERIC CRESSWELL, commenced her refit in 1994.

The three French designed 1,020 ton Daphne class submarines were commissioned in 1970/71 and underwent extensive upgrades in the late 1980s and early 90s, involving modernisation of weapons systems, sonar and improved habitability. Similar Daphne class boats serve with France, Pakistan, Portugal and Spain. All of these countries are either considering, or have ordered, new submarines.

The MCM flotilla operates four German designed 380 ton River class minehunters commissioned in 1981 as research vessels wearing the national flag. Formal acceptance into naval service took place in 1988. Also operated are four Ton class British designed 400 ton minesweepers commissioned in 1958/59. These have begun a series of two-year long overhauls which include a new MCM control system and a major renewal of decks and frames.

One 2,700 ton Hecla class survey ship provides the SAN with a minimal hydrographic and oceanographic capability, whilst underway replenishment is provided by two vessels. The 12,500 ton DRAKENSBURG is the first naval vessel to be completely



Minister class patrol boats. (Photo: Alan Du Toit)

designed and built in South Africa as well as the largest. The 21,000 ton OUTENIKUA was originally launched in the Ukraine in 1991 and operated by a Russian shipping company until 1993, at which time she was purchased for the SAN. Originally designed as an Arctic supply vessel, OUTENIKUA is currently being refitted with light armament and replenishment at sea (RAS) equipment.

The major problems facing the SAN are the age of the submarine force and its lack of a true blue-water combat capability. The submarine force refits have upgraded their capabilities, however, given the long lead times usually associated with new submarine projects, a decision on replacements will have to be made in the near future. With the decision by the Royal Navy to abandon conventional submarines and the resultant loss of design and construction capability, the South Africans are left with a mixed field of

possible contenders. France, Sweden, Germany and Russia would be the main contenders however bids from China, South Korea and possibly the Australian Submarine Corporation with the Collins class cannot be discounted. As with all such purchases the problem will be in convincing sceptical politicians that maintaining the capability is worth the price.

The new patrol-corvette program is a requirement for a minimum of four 1,500-3,000 ton offshore patrol vessels (OPV). These ships are to be ASW capable and should be better able to withstand the very rough seas encountered off South Africa. It is envisioned that they would be fitted with Skerpioon SSM's and a hangar and flight deck capable of operating a medium sized helicopter such as the Aerospatiale Puma already in Navy service. As four vessels would be inadequate for the size of the task it can be expected that additional orders would follow, either for further OPV's or for more a capable frigate class. Given the international interest generated from shipbuilders for the similar Malaysian OPV requirement it can be expected that bidding for this contract will be equally fierce. The SAN insistence on an absolute maximum of South African content may prove a deterrent to some however.

The resurrection of a true blue-water capability is a priority for the South African Government and Navy. Defence Minister Joe Modise has stated that "Our major problem is the Navy, whose strike craft are very near the end of their service lives, with some of them beginning to suffer metal fatigue. The patrol-corvettes program will partly address this problem."

The real question in this ambitious expansion is whether the South African economy can support the government's ambitious social justice program and leave anything for the Navy's long overdue revitalisation. The continuing unrest in the country points to difficult times and rough water ahead for the South African Navy.

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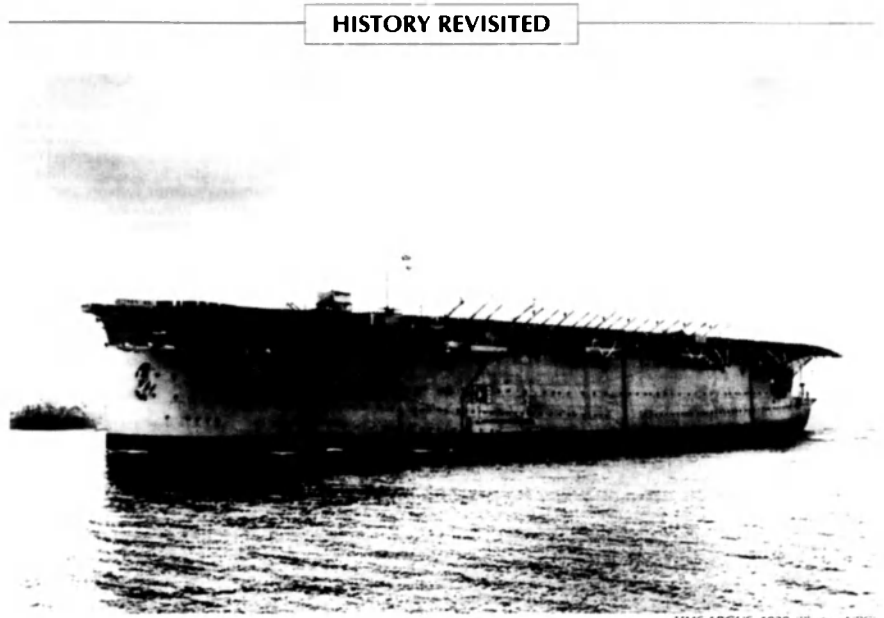
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History Revisited

Above: HMS IRON DUKE, 1930. (Photo - NPC)
 Left: Unusual photograph of the carrier HMS EAGLE in Malta. (Photo - NPC)
 Below: 1939, HMS HOOD in English waters. (Photo - NPC)



HMS ARGUS, 1939. (Photo - NPC)

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American Naval Strength

Force Structure

Twelve aircraft carriers, including one designated as a reserve/training carrier, and 11 large-deck amphibious ships will constitute the core of the Navy's projected fleet (see Tables V-1 and V-4). These 23 aviation-capable ships will be the centrepieces of U.S. naval forces needed to fight and win two nearly simultaneous MRCs or fulfill overseas presence requirements while maintaining an adequate rotation base at home.

Further adjustments, reflecting post-Cold War needs, will trim the force to about 330 vessels by FY1999. Longer-term force structure goals will include:

- 14 aircraft carriers (active);
- 1 aircraft carrier (reserve/training);
- About 110 to 116 major surface combatants;
- About 10 reserve frigates; and
- 55 attack submarines (about 45 as a longer-term goal).

Consistent with the need to integrate Navy and Marine Corps elements for littoral operations, these forces will be employed in Naval Expeditionary Task Groups (NETGs). The Navy is examining various NETG configurations that could be tailored to meet the demands of a specific deployment or conflict. A notional NETG might consist of a carrier and large-deck amphibious ship, supported by surface combatants, amphibious forces, a Marine expeditionary unit, attack submarines, and maritime patrol aircraft. As an example of this new force employment concept, two battle groups integrated with an amphibious ready group and a Marine expeditionary unit were deployed in 1991 with a mix of Navy and Marine aircraft in their air wings. Each group included one aircraft carrier, three amphibious lift ships, six to seven surface combatants, and two attack submarines.

As the tables show, two aircraft carriers and two large-deck amphibious ships were deactivated last year. Other deactivations in FY 1994 included one nuclear cruiser, eight frigates, four guided missile destroyers, six amphibious assault ships, six hydrofoil ships, and ten nuclear submarines. Taking into account other planned ship retirements and future delivery schedules, the U.S. naval force in 1994 will consist of 387 ships (see below).

1994 Force Levels

Strategic Submarines	16
Strategic Support Ships	2
Aircraft Carriers	12
Attack Submarines	87
Surface Combatants	110
Amphibious/Command Ships	41
Mine Warfare Ships	15
Logistic Force Ships	88
Reserve Combatants	16
Total Ships Battle Forces	387

Capabilities

Naval expeditionary forces provide a range of capabilities for regional deployments. Operating independently or as part of joint task forces, they perform strategic deterrence functions, provide command and control of the battle environment, establish battlespace dominance, project combat power ashore, and sustain deployed forces. In addition, naval forces on patrol in international waters can operate independent of overflight and access in rights granted by other nations, giving the United States a ready means of employing forces in regional crises.

- **Command, Control, and Communications (C³)**. With an extensive C³ architecture - including systems in space, at sea, and ashore - naval forces provide an excellent command platform for all phases of an engagement. They enable joint force commanders to receive information from nationally-managed support systems and from tactical surveillance systems - such as MPA, carrier-based aircraft, submarines, and Aegis ships - and from communication networks ashore.

- **Battlespace Dominance**. The ability to control airspace and sea lanes in a littoral environment is critical to projecting power ashore. Aircraft carriers and surface combatants equipped with the Aegis air defence weapon system protect neighbouring airspace. Submarines, battle force ships, maritime patrol aircraft and helicopters, and nine countermeasure forces control the surface and undersea environments.

Modernisation

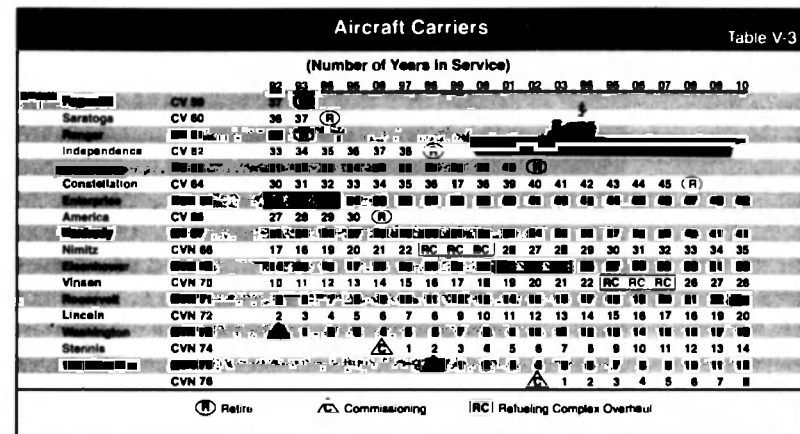
Key concerns addressed in the FY 1995 budget are the need to refine littoral warfare capabilities and meet long-term modernisation requirements as naval forces are reduced in size. The initiatives planned for FY 1995 and coming years will maintain a robust naval force structure while hedging against uncertainties in the threat. To acquire the capabilities needed for the future and enhance current mission performance, modernisation programs will focus on the following areas:

Shipbuilding

Ship procurement programs in the FY 1995 budget and FY 1995-99 program will provide replacements for older ships, modernise the existing force, and preserve critical elements of the shipbuilding industrial base.

- **Aircraft Carriers**. Two more Nimitz-class carriers will be delivered by FY 1998, and funding for the Navy's next carrier (CVN 76) is included in the FY 1995 budget. These ships will replace older, conventionally-powered carriers, supporting a force of 11 carriers, plus an additional carrier serving as a reserve and training vessel which also would be available for deployment.
- **Amphibious Ships**. Three Wasp-class LHDs and four new LSDs (a cargo variant of the LSD-41 class) will enter the force by the end of the decade. The new LPD-17-class amphibious assault ship (formerly the LX) will begin procurement in FY 1996. Twelve ships of this class will be needed to sustain the goal of providing lift capacity for 2.5 Marine brigade-equivalents. Although the amphibious force will decline in size as a result of ship retirements, and one portion of lift capability - vehicle space - will drop temporarily, the operational performance and flexibility of future amphibious forces will exceed today's capabilities.
- **Submarines**. The final SSN-688 Los Angeles-class submarine will be delivered in 1996, completing this 62-ship program. Two SSN-21-class (Seawolf) attack submarines have been funded for construction at Groton, Connecticut. A third boat of this class will be funded in FY 1996 to bridge the gap in submarine construction at the Groton shipyard. The Defence Acquisition Board is currently reviewing plans for a potential new class of nuclear attack submarine that would be less costly than the Seawolf. Procurement of the first boat of this class is not expected before FY 1998.
- **Cruisers and Destroyers**. With the delivery of CG-73 in 1994, the naval surface combatant force will include 27 Aegis cruisers. As DDG-51-class destroyers are delivered, older cruisers and frigates will be retired earlier than previously planned in order to achieve a revised goal of about 100 to 116 active surface combatants by 1995. The number of Aegis surface combatants will increase from 34 at the end of FY 1994 to about 56 by the end of the

AMERICAN NAVAL STRENGTH



decade. Ships carrying the Aegis system offer greater flexibility for operations in high-threat environments, while increasing overall U.S. air defence capability. The Aegis combat system can identify, track, and simultaneously engage many more air targets than could earlier air defence systems. Research and development (R&D) efforts will focus on providing the Aegis system with the ability to support theater ballistic missile defence operations.

- **Mine Countermeasure Ships**. Drawing from lessons learned during Operation Desert Storm, the Navy is expanding its mine countermeasure (MCM) capabilities. Two Avenger-class MCM ships will be delivered in FY 1994, completing this 14-ship program. The second Osprey-class mine-hunter will enter service in 1994, building toward a total of 12 of these ships by the end of the decade. The Naval Reserve is assuming responsibility

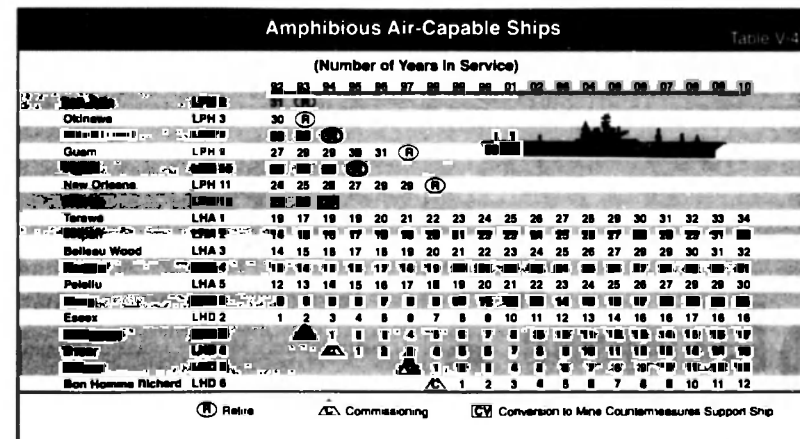
for a substantial portion of this mission, with 1 mine command control ship (MCCS), 4 MCMs, and 11 coastal mine-hunters (IMHCs) slated to be in its inventory by 1998. These vessels will improve the ability of naval forces to locate and neutralise both moored and bottom mines.

- **Combat Logistic Forces**. The AOE-6 is an underway replenishment ship designed to provide on-station logistics support to expeditionary task groups. Ships of this class will augment AOE-1 class vessels. Four AOE-6s are now under construction. These ships will carry primarily fuel and munitions.

Weapon Systems

- **Ship Self-Defence**. The proliferation of antiship cruise missiles poses an increasing threat to surface forces. The Rolling Airframe Missile (RAM) - a lightweight, low-cost

Continued on page 30



AMERICAN NAVAL STRENGTH

system using a 5-inch-diameter surface-to-air missile (SAM) - will be an effective point defence system against the cruise missile threat. During the coming year, RAM procurement will begin for future installation in DD-963s, FFG-7s, and LSTs. An additional layer of air defence, the Close-in Weapon Systems (CIWS), will be enhanced through computer hardware and software upgrades. A new version of the NATO Sea Sparrow Missile, called the Evolved Sea Sparrow Missile (ESSM), is being developed for potential installation on several ship classes. The integration of non-Aegis sensors and air defence weapon systems has also been developed and tested as the Ship Self-Defence System (SSDS) Mk 1 for modernisation of non-Aegis ships. The SSDS, scheduled for installation within the FYDP period, combines with the Navy's planned Co-operative Engagement Capability (CEC) to meet ship self-defence requirements against advanced cruise missiles.

A Surface Ship Torpedo Defence (SSTD) system is also under development to enhance ship defences against torpedoes launched from submarines. Some elements of the SSTD system are nearing the end of development and will be installed on ships during the FYDP years.

- SH-60B/F Helicopters extend the range and are integral to the overall capabilities of surface combatants for anti-submarine warfare (ASW), surface surveillance, and over-the-horizon targeting missions. Consistent with the decline in surface combatant force levels, the Navy's inventory requirements for SH-60Bs have been reduced. An additional seven SH-60B aircraft are slated for procurement through FY 1994, completing production of this model. Experience in Operation Desert Storm and subsequent Navy analyses support adding an organic helicopter capability to the DDG-51 to enhance the ship's littoral warfighting capability. Accordingly, the DDG-51 Flight IIA will employ the SH-60B, including an armed version for anti-ship missions in littoral environments.

The F version of the SH-60 is replacing the obsolete carrier-based SH-3H as naval battle groups' inner-zone ASW helicopter system. Enough of these aircraft have been procured in prior years to meet the carrier ASW requirement through the turn of the century. Accordingly, the FY 1995 budget terminates SH-60F production.

In the future, SH-60Fs and SH-60Bs will be remanufactured into newer variants that will provide advanced capabilities for littoral warfare and special operations. These conversions will help meet requirements for sea-based helicopters.

- P-3C Maritime Patrol Aircraft. Land-based MPA squadrons provide important surveillance and identification capabilities for peacetime operations and major regional contingencies. The responsiveness and utility of these forces in littoral environments have been evidenced in

Operation Desert Storm and subsequent deployments. The FYDP continues ongoing reductions in the active MPA force from 24 to 13 squadrons, while holding reserve strength at the FY 1994 level of 9 squadrons. Together, these steps will enhance the integration of reserve forces, permit the early retirement of reserve P-3Bs, and reduce costs as the entire MPA force shifts to a common P-3C airframe. The Navy expects to operate its P-3Cs to 40 years and is studying additional extensions to about 50 years. With P-3Cs no longer in production, modernisation is focused on P-3C upgrades. Emphasis has shifted from ASW to surface surveillance and antiship missions, including the Anti-Surface Warfare (ASUW) Improvement Program (AIP). This is a previously developed initiative that will improve the ASUW and over-the-horizon targeting capabilities of P-3Cs.

- Tomahawk. The Tomahawk cruise missile has demonstrated exceptional operational effectiveness from a variety of launch platforms, as evidenced in Operation Desert Storm and in the 1993 strikes against Iraq. Several improvements to the system were introduced during the past year, including the Block III missile and improved mission planning facilities and systems. The Block III version provides extended range, improved lethality, and enhanced mission planning flexibility.

- Naval Surface Fire Support. With the retirement of its battleships, the Navy is studying near- and long-term improvements in this mission area to support amphibious operations. Currently, most naval fire support is provided by tactical aircraft. While tactical air forces will continue to play a critical fire support role in the future, surface combatants also have important capabilities to contribute. Accordingly, the Navy is investigating gun, missile, and rocket technologies that could provide surface fire support at various ranges. Promising examples include advanced projectiles for existing 5-inch guns, advanced guns based on liquid-propellant and electro-thermal chemical designs, and use a new attack missile system aboard ships. Acquisition decisions on specific programs await completion of ongoing Navy tests and analyses.

- Surveillance and Communications. The FY 1995 budget includes funds to upgrade the surveillance capabilities of the Navy's P-3, E-2C, and EP-3 aircraft. The budget also supports an expansion of unmanned aerial vehicle (UAV) capabilities, designed to give air-capable ships an organic aerial-surveillance capability. Funds also are provided for critical communications programs, such as extremely high frequency and superhigh frequency systems (EHF/SHF), the Joint Service Imagery Processing Systems (JSIPS), and the Joint Tactical Information Distribution System (JTIDS). These systems will enhance the command and control capabilities of force commanders in joint operations.

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REVIEWS

ROYAL AUSTRALIAN NAVY

Profile No. 3
Maritime Patrol:
Helicopter Ships,
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Amphibious, Mine Warfare
and Patrol Craft

By
Michael Wilson

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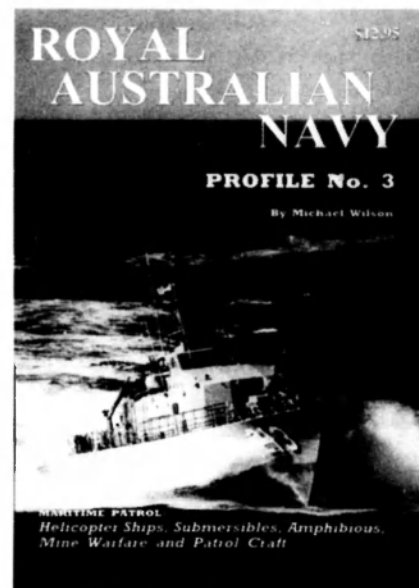
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TONY GRAHAM

This is the third volume in a five Profile set dealing with the ships of the Royal Australian Navy since its formation in 1911. While the first book dealt with the Major Fleet Units and the second, Submarines, Destroyers and Escorts, the new volume describes and illustrates a much wider variety of naval ships in service during the past 84 years.

From the recently purchased helicopter support ships KANIMBLA and MANOORA to the secretive submersibles of the Second World War through to the numerous mine warfare, amphibious and patrol vessels, Profile No. 3, provides a well researched narrative of both individual and warship classes, highlighted by both historical and technical commentaries.

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many privately owned vessels, requisitioned for naval duties in both the First and Second World Wars. The inclusion of such ships provides the reader with the complete story, with many of the "ships taken up from trade" forming the major part of the RAN's strength during the early war years.

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SHIP OF COURAGE

The Epic Story of HMAS
PERTH and Her Crew

By
Brendan Whiting

Published By
Allen & Unwin

Cost: \$34.95 (hard cover)

Reviewed By
BRIAN ALSOP

This is a book that everyone interested in Naval history should read. More than just another account of a ship's life and death, it is the story of PERTH's crew: first through the diary of the author's father, a Chief Petty Officer who like 352 of his shipmates went down with PERTH, and then through the eyes of those who survived the sinking and subsequent imprisonment by

the Japanese. It is an intensely personal story of survival and courage.

Whiting has interwoven a personal story of life aboard PERTH with a clear account of the ship's history and operations to make compelling reading.

The Battle of the Java Sea, in which PERTH was involved, clearly demonstrates what can happen when inexperienced naval commanders are given free reign in battle. Interoperability between the various ships and national elements of the Combined Striking Force was not exercised or tested. That was not deemed necessary by its commander, Rear Admiral Karel Doorman. There was even less co-operation between air and naval forces in the region. It was not until the experienced Captain of HMAS PERTH, Hec Waller, took command of the remnants of the Combined Striking Force (HMAS PERTH and USS HOUSTON) that the correct tactical action was taken - withdraw to fight another day.

Poor tactical intelligence also took its toll. The Captains of HMAS PERTH and USS HOUSTON were not told that a large Japanese force had been sighted about 100 miles north of Saint Nicholas Point at the entrance to Sunda Strait. As a result, the two ships sailed towards Sunda Strait and their fate at the hands of the same Japanese fleet of which they had not been advised. It was a battle to the end. Both PERTH and HOUSTON fighting until they were out of ammunition and could shoot no more.

In the command, control and intelligence aspects of these battles, there are lessons for all naval commanders.

More than anything else, SHIP OF COURAGE is the personal story of the men who survived the sinking of PERTH in Sunda Strait and endured the horror of imprisonment for the remainder of the Second World War. What makes this book special is the assistance and co-operation the author had from those survivors. In Brendan Whiting's words:

"I probed as far as I could into the hearts and minds of the officers and men who were stretched to the

Continued on page 32



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The principal objective of the Navy League of Australia is "The maintenance of the maritime well-being of the Nation" by:

- Keeping before the Australian people the fact that we are a maritime nation and that a strong Navy and a sound maritime industry are indispensable elements of our national well-being and vital to the freedom of Australia.
- Promoting defence self reliance by actively supporting manufacturing, shipping and transport industries.
- Promoting, sponsoring and encouraging the interest of Australian youth in the sea and sea-services, and supporting practical sea-training measures.
- Co-operating with other Navy Leagues and sponsoring the exchange of cadets for training purposes.

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- By supporting the Naval Reserve Cadets, and assisting in the provision of training facilities.
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- By publishing "The Navy", a quarterly journal reporting on local and overseas maritime happenings, past, present and projected.
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Instructional camps are arranged for Cadets and they are also given opportunities wherever possible, to undertake training at sea in ships of the Royal Australian Navy.

Cadets, if considering a sea career, are given every assistance to join the Royal Australian Navy, Mercantile Marine or the Royal Australian Naval Reserve, but there is no compulsion to join these Services.

For further information, please contact the Senior Officer in your State, using the addresses provided below.

NEW SOUTH WALES: Staff Office Cadets, HMAS Watson, Watsons Bay, NSW, 2030.

QUEENSLAND: Senior Officer NRC, Naval Support Office (South Queensland), C/- Bulimba Army Barracks, Apollo Road, Bulimba, Qld, 4171.

WESTERN AUSTRALIA: Staff Office Cadets, HMAS Leeuwin, PO Box 58, Fremantle, WA, 6160.

SOUTH AUSTRALIA: Staff Office Cadets, Naval Support Office, Commonwealth Centre, 55 Curry Street, Adelaide, SA, 5000.

VICTORIA: Staff Office Cadets, TS Voyager, Nelson Place, Williamstown, Vic, 3016.

TASMANIA: Staff Office Cadets, Naval Support Office, Defence Centre Hobart, Anglesea Barracks, Davey Street, Hobart, Tas, 7000.

AUSTRALIAN CAPITAL TERRITORY: Commanding Officer, TS Canberra, PO Box E52, Queen Victoria's Terrace, ACT, 2600.

NORTHERN TERRITORY: Commanding Officer, TS Darwin, PMB 13, Winnellie, NT, 0820.

"THE NAVY"

All enquiries regarding the Navy Magazine, subscriptions and editorial matters should be sent to:

**The Hon. Secretary, NSW Division
NAVY LEAGUE of AUSTRALIA
GPO Box 1719, SYDNEY, NSW, 2001**

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Things Change in the Right Direction

The opinions or assertions expressed in articles 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.



HMAS KIANGA, minesweeping off Cape Moreton in February 1942.

Dear Sir,
I have been a member of the Navy League for many years. I know you like to have old photos for THE NAVY. Here is a photo of HMAS KIANGA under 1,000 tons, one 12 PDR, one Oerlikon, two M.G.s double sweeps. Aus minesweeper taken off Queensland 1941/42 from HMAS TAMBAR.

As told to me by a member of the crew, he said around about that time TAMBAR was lying, she wrong-signalled, and the shore battery opened up on her in Moreton Bay. She was hit by a six inch shell with one killed and one Stwd suffering his legs blown off. The shell finished up in the W.I. office. A very unfortunate occurrence. Thought you may be interested. So did Max.

Yours sincerely,
Ken Blakeley
Highett 3190

Dear Sir,
I refer to the first of the mystery ships appearing in the January-March edition of THE NAVY. Records held by the Naval Historical Section indicate that the hull number 71 was allocated to the requisitioned trawler LUCY STAR. Unfortunately not much is known about her service.

The possibility of this being LUCY STAR is further supported by the fact that she was armed with a single Oerlikon, one is visible on the quarter deck.

Yours sincerely,
J.H. STRACZEK
Senior Naval Historical
and Archives Officer

Brampton Island and The Whitsundays. Ex "Sandra" changed hands a few times, finally to home port in Cairns. Ex "SANDRA" still has the Royleen appearance and is in good condition.

Another Fairmile ex "ESMERELDA" also had a chequered career. Belonging to several owners before being purchased by Mr Peter Tibbs. The boat however had a tragic ending, catching fire in 1990.

Ex "AJAX" another Fairmile now named "PETAI", also served out of Cairns as a dive vessel, like the others had a changing career. Many years in Papua New Guinea working on the Fly River, however the rot had set in and the boat returned to Cairns for "Aus Dive" and was still in survey at the time of sale in 1993. She now resides in the Solomon Islands, her fate unknown.

Dear Sir,
I have been reading the story by Mr Brian Alsop on Army Watercraft Part 4, Oct/Dec Issue 94. I have collected small amounts of information on the following in which some old "Tars" may find interesting, and to find out what happened to these old ships.

Yours faithfully,
John Douglas
Cairns 4870

The ex Fairmiles 8 motor vessels are still operated and in survey. These are ex "MAUREEN" 2769 now "CHALLENGER" and ex "SANDRA" 2770 now "REEF ENCOUNTER SANDRA", both belong to dive companies in Cairns.

Ex "MAUREEN" 2769. From the end of the war "MAUREEN" had a few owners. One being the Port Authority of Fremantle W.A. where she served as a pilot vessel for many years. Her top side was rebuilt with a new pilot house and cabin in aluminium construction.

Her present owner Mr Alan Southwell of Cairns, operates her in the waters off Cairns, as a diving vessel, now known as "Challenger". In early 1995 this vessel was up for sale. She could now be sold to a Brisbane owner.

Ex "SANDRA" 2770 is still owned and operated by Mr Peter Tibbs of Cairns, as a dive vessel on the Great Barrier Reef. After war's end ex "SANDRA" belonged to the McLean family operating up to nine such vessels as Royleen Cruisers from Mackay to

Naval Cadets in Memorial Unveiling

Dear Sir,
Cadets from T/S ONSLOW at Caloundra recently played a significant role at the unveiling and dedication of a Naval Memorial at Maroochydore. T/S ONSLOW Cadets under the command of Lieutenant Justin Dax, NRC, assisted by Sub-Lieutenant Peter Fletcher and Petty Officer Bernard Verwayen made up the Catalaue Party, did duty as flag handlers and generally made themselves useful.

The memorial, situated in Cotton Tree Park, Maroochydore was unveiled by Commander D.A. Caton, ADC, RAN, Officer-in-Charge, Naval Support Office, South Queensland and dedicated by



85th Wooden Cargo Vessel. Like so many others after the war, a vessel believed to be the ex Navy diving tender "ALBATROSS" GPV 961 found its way to Cairns. She is now known as "CORAL REEF", also working for diving charters to the Great Barrier Reef. She has retained her appearance and helm, with only a few extras added since.

This vessel is owned by Mr D.J. Williams of Cairns. 56th Wooden Cargo Vessel. One of the vessels still exists today, the former RAN diving tender "TURTLE". She is believed to be working in The Gulf of Carpentaria. As late as 1994 "TURTLE" has kept her grey marine diesel.

Hope this may shed some light on old ships, to old ship mates. 50 years on and still going

Senior Naval Chaplain Graeme Adsett, RANEM. Hugh Anderson of the Sunshine Coast Sub-section of the Naval Association of Australia designed and built the memorial.
Kevin Baker
Caloundra 4551

Dear Sir,
Recent editions of THE NAVY have been running articles on Army watercraft. I enclose some additional details on AK-82, ALMA DOEPEL.

The Sail Training Vessel ALMA DOEPEL was built in Australia in 1903, and has spent most of her life in Australian waters. In recent years the ship has been restored as a fully operational

Tall Ship. She conducts Sail Training voyages on Port Phillip Bay for the youth of Victoria.

During World War 2 ALMA DOEPEL was commissioned as Army Ketch AK-82 to work as an explosives and ammunition ship, carrying stores and personnel to remote outposts in northern Australia and the Pacific Islands. In April 1945 the ship carried approximately 800 troops into action under General "Red" Robbie Robertson, shuttling them along the coast under cover of darkness to assault remaining Japanese strongholds in New Guinea.

This year is the 50th anniversary of the old ship's active service, coinciding with Anzac Day and the V.E. day (Victoria in Europe) 50th anniversary, which will be

celebrated during the AUSTRALIA REMEMBERS PROGRAM announced recently by the Prime Minister.

It is hoped that old soldiers and former crew who served on AK-82 can be located for a re-union to be held onboard during a special ceremony to commemorate the ship's war service. The ship will be presented with a plaque in recognition of her vital role during World War 2.

A special fund-raising campaign is also underway to finance a Commemorative Youth Sail Training Voyage in memory of the dedicated efforts of our war-time heroes.

Yours faithfully,
CAPT PL. Ballantyne
North Melbourne 3051
See article in this issue - Editor



THINGS CHANGE IN THE RIGHT DIRECTION - CONTINUED

Readers of THE NAVY will know of the relevance of the sea to our defences. They will be aware of the importance to our prosperity of sea borne trade. These matters are not widely understood. They are not normally in the forefront of people's thoughts. Even when, as recently, there has been debate over the future of the ANL, much of the reporting in the general press gave priority to the political implications.

It seems that Australians look inland. The cultural emphasis is on the sunbunt country. It is the wide brown land for us. Of course, the vast majority of the population have their homes within 100 kilometres of the sea. It is ironic that we prefer to live where the land is neither too wide nor too brown. Australians have to be reminded that their continent is an island.

The League has been tackling this awareness problem in many ways. This magazine, the Sea and Australia video and seminars run by the League are but examples. The League remains involved in the Naval Reserve Cadets. The State divisions of the League and individual members have also busied themselves assisting maritime museums, preserving historic vessels and lighthouses and generally doing their bit to promote the cause.

All these activities are to be encouraged. They each in their own way help spread the maritime message in the community. Even DM and OFs are members of the community!

Which brings us back to the DM and OFs. The competition from interest groups will not lessen. In this ever changing world it is clear that the League will have to work hard to ensure that whenever it has a point to make its views are not submerged in all the other competing demands for the eyes and ears of our DM and OFs.

And now a few words about Geoffrey Evans. Many fine tributes have been paid to his work for the League and for maritime affairs generally. All justly deserved. But it should be made clear he has not been pensioned off to idle retirement. He remains in service as Chairman of the Federal Advisory Council. Although his words will no longer appear in Viewpoint readers might wish to keep an eye on other pages of THE NAVY.

Graham HARRIS
Federal President
P.S. There is a prize for the best alternative acronym to DM and OFs.

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NEW ZEALAND SEALIFT SHIP

The New Zealand Defence Forces purchased the former mercantile Roll-on/Roll-off motor vessel MERCANDIA QUEEN II in late 1994.

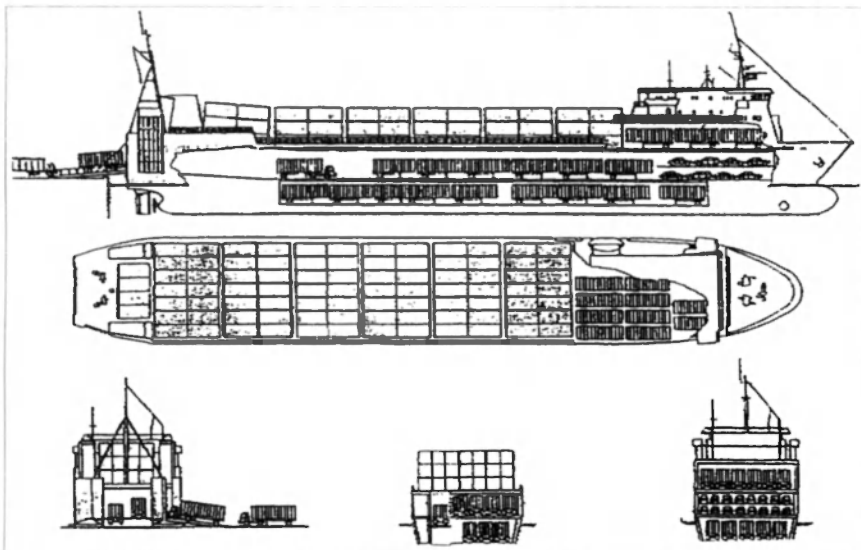
After arriving in Auckland on 24 March, initial training began, along with the conversion to a military sealift ship, to be named HMNZS CHARLES UPHAM. Commissioning is expected into the Royal New Zealand Navy in mid October, 1995.

For a number of years the "Kiwi" Navy has required a sealift or logistic support ship capable of taking a company lift of the Army's Rapid Reaction Force, up to a maximum capacity of 500 in an emergency.

A project definition study for such a vessel was finalised in 1989, with ship facilities for two medium helicopters produced by British Maritime Technology Defence Services. With the defence budget under severe pressure a conversion was deemed the only affordable alternative. Various solutions were investigated and in late 1994 the Danish MERCANDIA QUEEN II was purchased at a price of Dkr55 million (US\$9m).

MERCANDIA QUEEN II was originally completed for the Danish Mercandia Company by Danyard's Frederikshavn yard in 1984.

In early January, 1995, after a brief overhaul at the Fredericia Shipyard in Denmark, the ship proceeded to New Zealand via the Panama Canal, her crew British civilians. At the Devonport



Internal arrangement of the New Zealand Logistic Ship, prior to conversion.

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NEW ZEALAND SEALIFT SHIP

HMNZS CHARLES UPHAM SPECIFICATIONS

GENERAL:
Overall Length 111.70 m
Draft 6.16m
DWT at 6.16m 7,220 mt
Service Speed 14.5 kn

TOP DECK:
Clear Height (Garage) 4.0 m
Deck Area (Open) 1,390 sq m
Deck Area (Garage) 400 sq m

MAIN DECK:
Clear Height 4.5 m
Platform Deck above 1.87 m
Platform Deck below 2.30 m
Deck Area 1,575 sq m
Platform Deck 380 sq m

LOWER DECK:
Clear Height 4.0 m
Deck Area 910 sq m

EXTERNAL RAMPS:
Stern Ramp 15.5 x 8.2 m
Roadway width 7.7 m
Starboard Quarter Ramp 13.0 x 4.5 m
Roadway width 4.0 m
Capacity (Both Ramps) 60 mt

CARGO LIFTS:
Starboard (Serves all decks) 16.0 x 3.18 m
Capacity 45 mt
Port (Serves lower decks) 16.0 x 3.17 m
Capacity 35 mt

Naval Dockyard, Auckland, the ship will undergo a short series of preliminary modifications. She will be named HMNZS CHARLES UPHAM in honour of the Second World War New Zealand soldier who won a bar to his VC.

A number of modifications will be required before the ship is fully ready for military sealift operations, including:

Phase 1A: Initial Modifications. This phase will include initial operator and maintainer training and implementation of an integrated logistic system, bringing the ship up to RNZN SOLAS and MARPOL required standards, painting the ship grey and fitting required naval communications equipment.

Phase 1B: Commissioning and Trials. Commissioning is envisaged for mid Oct 95, to be followed by trials covering noise ranging, degaussing, heeling/stability and aviation. The ship is anticipated as being available for contingency operations over the 95/96 cyclone season.

Phase 2: Limited Operations. This will include pre-deployment training in the ship, loading, deployment and unloading training.

As the navy familiarises itself with the ship, tenders will be sought from local shipyards, including the privatised Devonport Naval Dockyard, for the full conversion.

Phase 3: Final User Requirement Modifications. This will include provision of a helicopter deck and hanger, for two Army helicopters, permanent accommodation for 65 and facilities for a further 150 Army, increased dry and refrigerated storage capacity, the fitting of a full communications suite, SRBOC and 0.5 cal machine guns. The envisaged helicopter deck capacity is for one Chinook or two medium lift helicopters, with the ability to hanger two medium lift helicopters.

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FFG Upgrade Navy's First Priority

By A.W. Grazebrook

With the long lead times required for new equipment, the RAN must plan ahead for the next twenty years at least.

The RAN is now doing just that. This involves considering such key factors as:

- The long term defence strategy determined by the elected Government.
- The roles assigned to the RAN within that strategy.
- The tactical threats to the RAN that are forecast for the period over which existing and planned ships and aircraft are expected to remain in service. That is up to thirty five years from now.
- The equipment options available for meeting these threats.
- Bearing in mind ships and aircraft already in service, the alternative methods of acquiring any necessary additional capabilities.

With the DDGs due to end their service around the turn of the century, the focus of the RAN's current studies is on the future of the surface combatant force.

The current and forecast strength is:

- The three Adams class DDGs are highly capable in anti-air warfare and in command and control capabilities. They are fitted for but not with surface to surface weapons, but both their surface warfare and anti-submarine capabilities are limited by their lack of integrated helicopters.
- The two River class destroyer escorts, with limited fighting and anti-submarine capabilities, will pay off in the next three years.
- The six guided missile frigates are very capable in anti-air, anti-submarine and surface warfare. However, the advance of technology will render these ships steadily less capable, particularly in anti-air warfare.
- The eight Anzac frigates on order will be well equipped for surveillance and self defence but of limited anti-submarine capabilities.
- The lack of combatant capabilities of the fifteen Fremantle class patrol boats is a major concern when planning for countering threats.

To meet the demands of the future, the RAN is now considering four major aspects of the long term development of their surface combatant force:

- Upgrading the six FFG7 class ships.
- Building a new class of destroyers to replace the aging Adams class DDGs.
- Utilising the extra space and weight in the Anzac class to enhance their anti-air warfare armament and C2 systems.
- Under a joint programme with Malaysia, building offshore patrol combatants, capable of operating under combat circumstances, to succeed the Fremantle class patrol boats.

Although a strong case can be established in principle for each project, there are doubts that sufficient funds will be available to undertake each project on the scale and timetable necessary to ensure the RAN's ability to meet its assigned strategic role.

The issue is complicated by the evolving nature of the joint patrol vessel project, the timetable for which may impose a demand for funds earlier than would be the case if the Fremantle were to serve their full life of type.

The priorities set by the RAN for the FFG7 update are:

1. Upgrade the anti-air warfare capability.
2. Install the capability to avoid floating mines.
3. Anti-submarine warfare.
4. Anti-surface warfare.

The key objective of updating the ships' AAW capabilities is to deal with

new types of sea skimming anti ship missiles. That means countering both the missiles themselves and their launching vehicles (both aircraft and ships).

Options now being considered include modernising the FFG7s' existing medium range Standard SM1 missiles to Block VIB standard, upgrading to Standard SM2, installing the rolling air frame missile (RAM) and installing evolved Sea Sparrow to meet the need for a new layer of defence against anti-ship missiles. Evolved Sea Sparrow, which is still in development, would require the installation of a vertical missile launching system, whilst the latest SM1 would require new target illumination systems. The SM2 option would require the installation of a current generation combined surveillance and target selection radar.

Operations in the Kuwait Liberation War demonstrated the need for warships to be fitted with the capability to avoid floating (as distinct from bottom) mines. This can be done by installing a specialised (relatively cheap) sonar or modifying existing anti-submarine sonars.

A low priority is assigned to modernising the FFGs' anti-submarine capabilities because, with their S70B2 Seahawk helicopters, the ships are already fairly well equipped in this respect. However, there is a substantial body of professional opinion which disagrees with this. That body perceives a need for RAN helicopters to be equipped with a dipping sonar. Because the Official view assigns a low priority to anti-submarine warfare improvements, a dipping sonar is unlikely to be installed in the Seahawks for some years at least.



Already equipped with the anti-surface targeting capabilities of their helicopters and Harpoon missiles, and their 76mm guns, the FFGs are considered to be adequately armed for surface warfare.

Up to \$1 billion is envisaged for the FFG upgrade.

\$A2 billion is envisaged for the RAN share of the joint patrol vessel project. Of this \$A1.6 billion would fund only nine ships, with \$A0.4 billion for the ships' intermediate surveillance helicopters. A further \$A0.3 billion is required for helicopters for the Anzac frigates. Both patrol vessels and Anzac frigates are expected to receive the same type of Lynx-sized helicopters.

The RAN and RMN have developed jointly capabilities which meet the requirements of both navies. These meet the RAN's need for ships which not only have the range and sea keeping qualities to undertake patrol and surveillance work around Australia, but also have the damage control and self defence anti-air sensors and weapons to operate under some degree of threat. The current Fremantle class are helpless in these circumstances and would have to be withdrawn if serious fighting developed.

To ensure flexibility to meet the requirements of both the RAN and RMN, a number of detailed design variants are under consideration for the joint patrol vessels. Drawings have been prepared for an 8 cell Mark 41 or Mark 48 vertical missile launching system forward of the bridge, with the rolling airframe missile remaining an option. At least one option provides berths for one commanding officer, 10 officers, 10 senior sailors, 36 junior sailors and 15 embarked personnel (trainees etc). For the peace time fishery patrol and surveillance role, the RAN would man their ships with much fewer personnel.

Within a segment of the RAN outside Canberra there is a concern that only nine hulls can be funded for ships to fill an operational function over a very wide area. There is a view that more cheaper, but not smaller, ships are desirable. Even recognising the greater coverage

provided by ships with an embarked helicopter, a minimum of twelve ships is seen as essential. Further, although helicopters provide surveillance over a very wide area, they cannot detain and escort trespassing fishing vessels into harbour. The senior command professional naval view is that the RAN must be structured to conduct its assigned wartime role. Necessarily, this will involve the assignment of over capable units to peace time roles such as fishery patrols.

The eight Anzac frigates on order will be armed with one 127mm (5 inch) gun, a hull mounted sonar and anti submarine torpedoes for close range defence, and one Mark 41 vertical missile launching system for 8 Sea Sparrow (later 32 evolved Sea Sparrow) anti-aircraft missiles. There is only one channel of fire control for the anti-aircraft missiles, and no Phalanx close range anti-missile multiple gun system. However, space and weight have been provided for a second eight cell Mark 41 missile launcher, a second channel of fire control and a Phalanx type system.

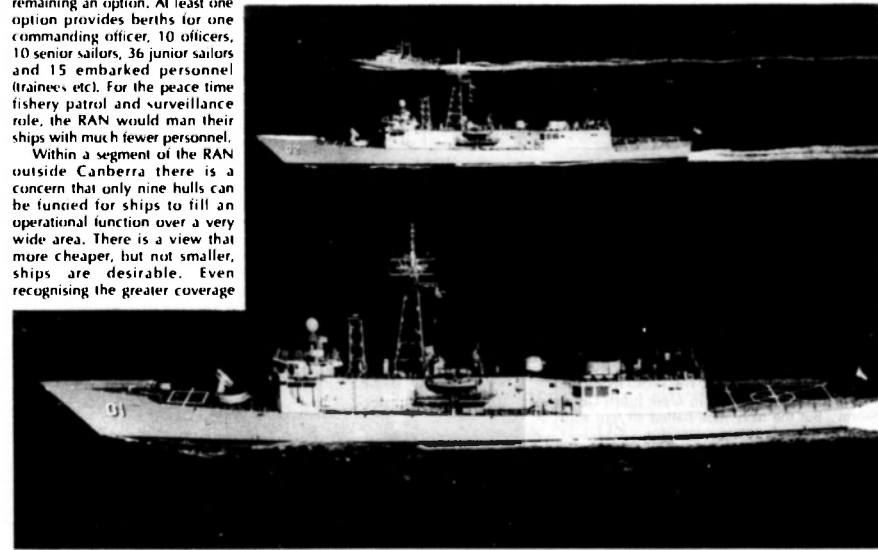
Recognising the space and weight already provided, exploiting the full potential of the Anzac frigates offers the RAN excellent value for money. Estimated to cost well under \$A0.5 billion for the 8 RAN ships, a second quad packed eight cell Mark 41 launching unit for evolved Sea Sparrow and a second fire control system would bring these ships up to the standard required for operations in the Persian

Gulf in 1991. The modifications would be implemented from the fifth ship in the class, with the two earlier RAN vessels being retrofitted.

Plans for the future destroyers are further from finalisation. However, the need for successors to these ships is manifest. Provisional plans involve utilising Australia's growing warship design capability (developed by Transfield for the Anzac frigates) to build a class of major surface combatant that would both succeed the DDGs and form a basis for the long term successors to the FFGs.

The capabilities required for the DDG successors have not yet been determined by the Australian Defence Force.

Time is getting short, HMAS PERTH, the oldest DDG, commissioned thirty years ago. Her anti-air warfare armament, gunnery system and command and control system have been extensively modernised and could serve for some time to come. With no helicopters and the removal of Ikara, the ships are limited to short range anti-submarine self defence. The hull and steam propulsion system are ageing. The latter is personnel intensive and the longer time taken (compared with a gas turbine system) to build up to full speed can be a major tactical disadvantage. Against this, the ships have been well refitted. Unless a decision is made soon and work starts on their successors, they will have to serve on longer than planned.





Above:
USS MISSOURI, arriving in Sydney, 1986.
Right:
USS NEW JERSEY, berthing Garden Island, 1988.

Mothballs to Museum Pieces

On 13 January 1995, the US Navy's last four battleships were removed from the naval vessel register on the orders of US Navy Secretary John Dalton.

The action makes them available for three possible options: foreign military sales, scrapping, or becoming a naval memorial or museum.

The ships, USS IOWA, MISSOURI, NEW JERSEY and WISCONSIN have been in 'mothballs', in a reserve status, for several years. In this status the ships would have been able to be brought back to active duty for a cost of \$95 million each, according to navy sources.

That price tag, along with the \$80 million it would cost annually to operate each ship, if re-activated, led the US Navy to conclude it would be unaffordable to ever deploy the battleships again.

As well there was little point in spending \$100,000 annually on each ship to maintain them in mothballs.

Navy sources said it is likely the ships would be turned over to charitable entities in the USA to become memorials. There is no apparent foreign military sales market due to the high cost of operating the battleships.

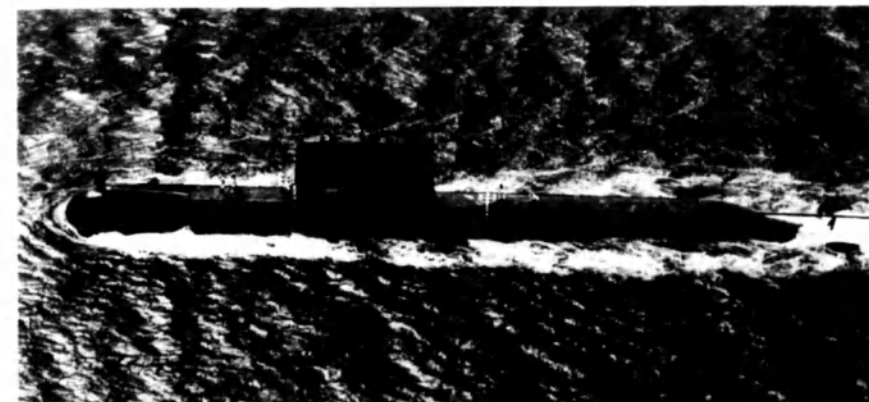
The ships were re-activated in the 1980s at a cost of \$425 million each. The WISCONSIN and MISSOURI participated in Operation 'Desert Storm'. But the navy mothballed all four ships again by the early 1990s.

This decision will leave the navy without any 16 in (400mm) guns to provide naval surface fire support. A number of solutions remain under consideration to fill that requirement, including a marinised version of the Army Tactical Missile System.



Collins
At Sea

New submarine COLLINS on the Port River, Adelaide. (Photo: RAN)



Flying the Red Ensign for her trials, COLLINS is expected to be commissioned in 1996.

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The RAN in WWII

The RAN in WWII

Jointly Hosted by
the RAN Maritime Studies Program
the Australian Naval Institute
and the
Australian National Maritime Museum

Thursday 25 - Friday 26 May 1995

Australian National Maritime Museum
Darling Harbour
Sydney, NSW

General Information

Fifty years after the end of World War II it is time to remember and reflect upon the achievements and sacrifice of those who served.

The war embraced history's greatest naval conflict and Australia's Navy was fully involved; its warships steaming all over the world and on many different types of operations.

Though often fighting in the shadow of its larger allies the RAN established itself as an effective and professional force, fully worthy of a place in the heroic tradition of Australia's armed forces.

Victory, however, came at a price, and the conflict would take the lives of over two thousand naval men and women, serving their country both at sea and ashore.

For the Royal Australian Navy's second History Conference sixteen well-qualified speakers have been invited to examine different aspects of the navy's war experience.

Sessions will not simply recount past battles but will also focus on many hitherto neglected areas including, strategy, policy, allied relations, social aspects and the contribution of Australian industry. Perhaps, even more importantly, the human side of events will be recalled, with full participation by several veterans of the war.

The conference is jointly hosted by the RAN's Maritime Studies Program, the Australian Naval Institute (ANI) and the Australian National Maritime Museum. Support from the Department of Veterans' Affairs, "Australia Remembers: 1945-1995" program, and the Naval Historical Society of Australia is also gratefully acknowledged.

The venue is the Australian National Maritime Museum, Darling Harbour, Sydney. Places are limited, so early registration is recommended.

Conference Venue:
Australian National Maritime Museum
Darling Harbour, Sydney NSW

Date:
25-26 May 1995
Registration from 8am on 25 May 95

Fees:
Registration is \$80 per person, \$70 if a member of the ANI. Fee includes lunches, morning and afternoon teas, and a copy of the proceedings when published.
A conference dinner will be held on Thursday 25 May, at the Hotel Lawson. The cost of the dinner is \$45 (including drinks).

Accommodation:
The Hotel Lawson has offered a special room rate for participants of this conference (\$85 per night room only). Please quote "Department of Defence - WWII conference" when booking accommodation. Ph: (02) 211 1499 or 008 251 713.
Registration and dinner fees are payable in advance, either by cheque or credit card, and as places are limited participants are advised to register early and no later than 8 May 1995.

Cheques should be made payable to:
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Canberra ACT 2600

Further Information:
Mr David Stevens
Tel: (06) 266 6873 Fax: (06) 266 6754



The RAN in WWII

THURSDAY 25 MAY

0800 Registration

Session 1 - Introduction
Chairperson - Captain J.H. McCaillie, RAN, Director
General Maritime Studies Program

0900 Welcome,
Vice Admiral R.G. Taylor, AO RAN, Chief of
Naval Staff

0910 Opening remarks, The Hon C. Sciacca, MP,
Minister for Veterans' Affairs

0930 Australian naval policy 1939-45, Commander
J. Goldrick, RAN

1000 The war in the Pacific: A strategic overview,
Mr J. Straczek, Senior Naval Historical &
Archives Officer

1045 Morning Tea

Session 2 - The RAN and Allied Navies
Chairperson - Associate Professor J. McCarthy, University
College, Australian Defence Force Academy

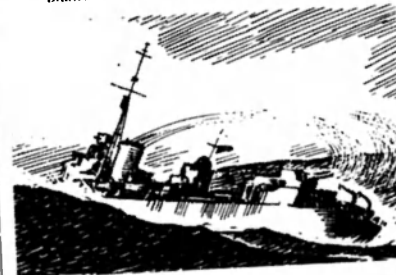
1115 An Indian Summer? WWII's effect on RN/RAN
relations, Lieutenant A. Cooper, RAN

1200 Forging an Alliance: The American Commitment
to the Southern Pacific 1940-42, Dr I. Cowman,
Bond University

1245 Lunch

Session 3 - The Impact of a Naval War on Australia
Chairperson - Commodore H. Donohue, AM RANEM -
Australian Defence Industries

1345 The establishment of the British Pacific Fleet,
Mr J.D. Brown, Head Royal Navy Historical
Branch



1430 The contribution of industry to navy's war in the
Pacific, Dr C. Coulthard-Clark
1515 Afternoon tea

Session 4 - Operations
Chairperson - Dr K. Fewster, Director of the Australian
National Maritime Museum

1545 The RAN contribution to operations in the
Mediterranean, Mr E. Grove, University of Hull

1630 Southwest Pacific Sea Frontiers - The Forgotten
Command, Mr D.M. Stevens, Director of Naval
Historical Studies

1930 Conference dinner
Pacific experiences, Senator D.J. Hamer

FRIDAY 26 MAY

Session 5 - Social Aspects
Chairperson - Rear Admiral C.I. Oxenbould, AO RAN -
President of the ANI

0900 Something peculiar to themselves: Social aspects
of the RAN 1939-45, Lieutenant J.S. Sears, RAN

0945 Willing volunteers, resisting society, reluctant
navy - The troubled first years of the Women's
Royal Australian Naval Service, Mrs K. Spurling

1030 Morning Tea

Session 6 - Personalities
Chairperson - Mr D.M. Stevens, Director of Naval
Historical Studies

1100 Commander R.M.B. Long - Director of Naval
Intelligence, Mrs B. Poniewierski

1145 J.A. Collins - A successful professional ashore
and afloat, Mr A. Grazebrook

1230 Lunch

Session 7 - Australia Remembers
Chairperson - Captain W.F. Cook, IVO, RAN Ret'd,
President of the Naval Historical Society

1330 Touching on Fairmiles, Mr M. Hordern

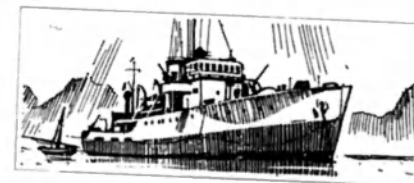
1415 The RAN Hydrographic Branch: 1942-45,
Mr J. Betty

1500 Afternoon Tea

Session 8 - Closing
Chairperson - Captain J.H. McCaillie, RAN, Director
General Maritime Studies Program

1530 The RAN in WWII, Associate Professor F. Broeze,
University of Western Australia

1600 Closing remarks, Rear Admiral D.J. Campbell,
AM RAN



ANL... Probe by Senate Committee

By Geoff EVANS

Further developments in the government's controversial proposal to relinquish sole ownership of the Australian National Line took place when Parliament resumed after the Xmas break and the Senate Finance and Public Administration Reference Committee advertised terms of reference for an inquiry into "matters related to the proposed sale of the ANL."

Submissions were invited from individuals and organisations:

- (i) Whether the proposed sale of ANL has been conducted with the prudence, discretion, integrity, skill and propriety necessary;
- (ii) to protect the value of ANL and its assets;
- (iii) to realise the maximum price for ANL and its assets; and
- (iv) to avoid prejudice to the interests of the Commonwealth, including the potential prejudice to the environment and the Australian shipping industry arising from the impact of increasing dependence on sub-standard and flag-of-convenience shipping.

The committee will await the Commonwealth Auditor-General's report on ANL affairs, due towards the end of March, before settling down to work.

The ANL's accounts for the year ended 30 June 1994 were also tabled when the Parliament resumed and revealed a much healthier financial situation than might have been supposed following Transport Minister Brereton's widely reported "you could not give it away..." statement in August last year.

From other information made available in recent times, the forced resignation of ANL Chairman Bill Bultho and his fellow directors in August would appear to have been unjustifiable in the circumstances, a fact that will no doubt be examined by the Senate committee along with the government's subsequent sale of the ANL's 25% shareholding in the major cargo-handling firm, Australian Stevedores, and other aspects of this unhappy episode in the history of Australia's merchant shipping industry.

Statement by the Navy League of Australia and the Company of Master Mariners of Australia concerning the future of the Australian National Line.

In recent months substantial public controversy has arisen over the Government's conduct of the sale of the Australian National Line (ANL); Transport

Minister Brereton's conduct of the sale process; his controversial statements in respect of its value and viability, and the consequent statements in respect of its value and viability, and the consequent decision of the Senate of the Australian Parliament to hold an inquiry into these matters.

The whole of the Australian economy ultimately rests upon the safe, efficient and cost effective sea carriage of its commerce, both in peace and in times of emergency and the Federal Council of the Navy League and the Federal Court of the Company of Master Mariners are concerned that the publicity given to the ANL controversy has diverted attention away from the important policy questions implicit in the Government's decision to sell ANL.

Authorised by:
Commander F.G. Evans OBE, VRD, RANR, (Rtd.)
Federal President, the Navy League of Australia
Captain H. Markins,
Federal Master,
The Company of Master Mariners of Australia.

As the only Australian flag operator in liner shipping serving Australia, ANL has an importance far in excess of its relatively minor participation therein and the Navy League and the Company of Master Mariners believe that ownership of ANL should remain in Australian hands for the following reasons:

- In the councils of the conference shipping cartels serving Australia, ANL is the only participant aware of conference proposals in respect of the carriage of Australia's sea borne commerce and providing intelligence to Government in respect of them. ANL is the only voice within these cartels arguing the Australian case from a national interest point of view.
- ANL has been a pace setting and innovative operator in the local industry both in terms of leading edge cargo handling technology and industry reform. Its demise or transfer to foreign hands would be to the serious and long term detriment of Australia's transport infrastructure.
- From the Auditor General's recent report to the Senate on the value of ANL and from other publicly available information, it is apparent that far from being, in the minister's statements, "A basket case that you couldn't give away", ANL had substantial net worth prior to those statements being made. From a public statement made by the former Chairman of ANL, it appears that since 1983 ANL has improved from a negative net worth of between 200 and 300 million dollars at that time to a positive net worth prior to the

Minister's statement above, an improvement of between 200 and 300 million dollars in value over a decade of depression in the world shipping industry and more recent troubles in our own economy.

ANL therefore appears to have been a commercially viable and important asset of the Australian tax payer. Irrespective of the intrinsic worth of ANL however, it is in relation to the overall Australian flag fleet that its importance lies.

• The Australian flag fleet has been declining in recent years, despite the massive reforms to the industry in which ANL has played such a major role and removal of ANL from Australian hands would both adversely impact further reform progress and reduce the overall size of the fleet from around seventy major merchant vessels to around 55 or so. At this level concerns are held by the Navy League and the Company of Master Mariners that the decline in the size of the Australian flag fleet may well become irreversible and it is their view that this is very definitely not in the national interest.

• A substantial Australian flag merchant fleet ready to the hand of the Government, which is large and varied enough to provide support for the Australian Defence Forces in an emergency without its withdrawal from commerce overstretching the civilian economy, ought to be an important aim of Government policy.

• Such a fleet is necessary as the training ground from which future Australian sea pilots, ship brokers, harbour masters, ship managers, stevedores, compass adjusters, marine surveyors, regulatory officials and all the other host of people needing professional sea faring qualifications for the proper functioning of our commerce, are drawn to serve the Australian economy.

• A commercially viable ANL in Australian hands is an appropriate and cost effective instrument through which to develop and maintain a core cadre of trained people and appropriate vessels readily available to the nation both as a commercially valuable entity in peace and as a ready available support to the ADF in times of emergency.

In the view of the Navy League and the Company of Master Mariners it is important for the Government to develop and publish an intellectually sustainable policy in respect of an Australian flag merchant fleet. At present no such policy exists and the ultimate disposal of ANL should not be agreed unless and until such a policy is in place.



INS VIRAAAT, formerly HMS HERMES.

Sub-Continent Super Power

From Mike James

Established in the 1950s to protect India's newly gained independence, the Indian Navy has grown from a "brown-water", or coastal defence force, into one of the world's most powerful navies. Along the way India has fought several wars with its nearest rival, Pakistan, with the Indian Navy in the forefront of the action.

Despite these conflicts, changes in equipment suppliers and the vagaries of politicians, the Indian Navy has continued its policy of consistent growth and today is ranked amongst the world's top ten navies. It is the only navy outside the USA, France, United Kingdom and Russia to operate two aircraft carriers and the only third world navy to have operated a nuclear attack submarine. India's desire to dominate the ocean named after it is well known, and the Indian Navy continues to excite interest in observers and disquiet amongst its neighbours.

The main strike force of the Indian Navy resides in its growing submarine arm. Made up, like so much else of the Navy, of a mix of western and Russian equipment, it comprises eighteen submarines of three different classes. Oldest boats in service are six Russian designed Foxtrot class commissioned between 1970 and 1975. Originally a class of eight, the oldest two have been cannibalised for spares to keep the remainder running. Of doubtful operational value, the Foxtrots are used primarily for training and are expected to begin paying off from 1997.

Eight Kilo class submarines were commissioned between 1986 and 1991. All were built at Leningrad (now St Petersburg) on the Baltic, despite initial plans to manufacture the class under licence in India. Although these plans fell through design drawings are held should the project be resurrected. It is reported

are building at Bombay. Despite German aid the Indian Navy has encountered difficulties with indigenous construction, the two boats completed in India so far, INS SHAKTI and SHANKUL, were much delayed due to assembly problems caused by faulty welding. The final two boats are scheduled for completion in 1997/98.

The ex-Soviet Charlie class nuclear-powered submarine (SSN) CHAKRA was returned to Russia in 1991 at the end of a three year lease period. An offer to extend the lease was not taken up. Despite unconfirmed rumours of radiation leaks and other problems, the Indian Navy has not given up on SSN's. Although interest is still being shown in purchasing a modern (Western) SSN the likely plan is to



From left: Indian Naval Ships GANGA, RANJIT, RANVIJAY and VIRAAAT.

that up to six may be fitted with a submerged launched Surface to Air (SAM) capability in the form of a mast-mounted SA-N-8 or SA-N-14 system.

Four German-designed Type 1500 submarines, two built in Germany and two assembled in India with German help, make up the remainder of the submarine force. Two additional boats

build a nuclear powered submarine in India using a derivation of a Russian hull with an Indian-designed reactor. To this end a major project is underway to design, build and test a pressurised water reactor (PWR). Current plans are to lay down a 2,000 tonne submarine in 1997 for use as a test bed.

The second strike arm of the Indian Navy is the Fleet Air Arm, operating

THE INDIAN NAVY



Above:
Modified Kashin class destroyer **INS RAIPUT**.

Right:
INS GANGA, Godivari class frigate.

Harrier V/STOL jets armed with Sea Eagle missiles. Both types operate from the 33 year old **VIKRANT** and the 35 year old **VIRAAAT** (ex HMS **HERMES**). **VIKRANT** operates a mix of six Sea Harriers, nine Sea King helicopters and a single Chetak (Alouette) search and rescue helicopter. Falkland's War veteran **VIRAAAT** was acquired from the UK in 1986 and was commissioned in 1987 following a UK refit. Normally operating a group comprising twelve to eighteen Sea Harriers, seven Sea Kings and two Chetaks, up to thirty Sea Harriers could be operated in an emergency.

Whilst conferring a capability unmatched within the region both vessels



are in need of urgent replacement. Initially it was announced that the French

design agency responsible for the **CHARLES DE GAULLE** class CVN would be retained to assist in the design of a replacement to be built in India. Following reports of a change of intent within the Indian Navy, it was announced in 1991 that the design for a replacement would be shifted to an Italian **GARIBALDI** design. Current thinking within the Indian Navy is for an indigenously constructed carrier to enter service by the year 2000. This project, however, takes secondary priority to the nuclear submarine project. Recently reports have surfaced that Russia is offering the Kiev class VTOL carrier **ADMIRAL GORSHKOV** (ex **BAKU**) for sale. The current condition of the **GORSHKOV** is reported as poor.

The mainstays of any blue water navy are its surface combatants, the destroyers and frigates, and once again the Indian Navy utilises a varied mix of Russian, Western and indigenous designs. Largest members of the surface fleet are the five modified Russian designed Kashin class destroyers, the **RAIPUT** class. Commissioned in 1980-88 they are equipped with surface to surface missiles (SSM), surface to air missiles (SAM), anti-submarine torpedoes and mortars, two 76mm guns and operate a Helix helicopter.

Now under construction in Bombay, the Project 15 class guided missile destroyers (DDG) represent the future for the Indian surface fleet. Designed in India to incorporate the best features of the **RAIPUT**'s and the **GODIVARI** class frigates, the **DELHI**, **MYSORE** and the unnamed third ship will utilise mostly Russian weapons and western electronics. Later ships will have Indian-designed weapons and electronics fitted as they become available. Impressive ships, as designed, they will operate

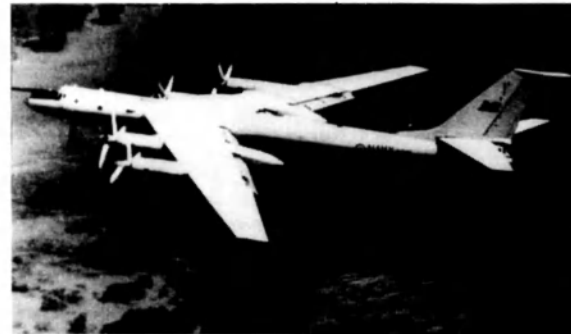


Aircraft carrier, **INS VIRAAAT**, August 1994. The ship is listing to port, with her "ski jump" prominent at the bow. (Photo: A.D. Baker III)

THE INDIAN NAVY

Russian **SS-N-22** SSM's and **SA-N-7** SAM's, a 76mm gun, torpedo tubes and two Sea King helicopters, all on a displacement of 6200 tonnes. It is reported that all three ships are running behind schedule due to difficulties in procuring needed sub-systems from the disparate parts of the former Soviet Union. This may well result in additional

and operate British-built, American-designed Sea King helicopters. As may be expected there have been some equipment compatibility problems! However, the Indian Navy is persevering with the class and three more have been ordered to a slightly larger design, utilising a great deal more indigenous content.

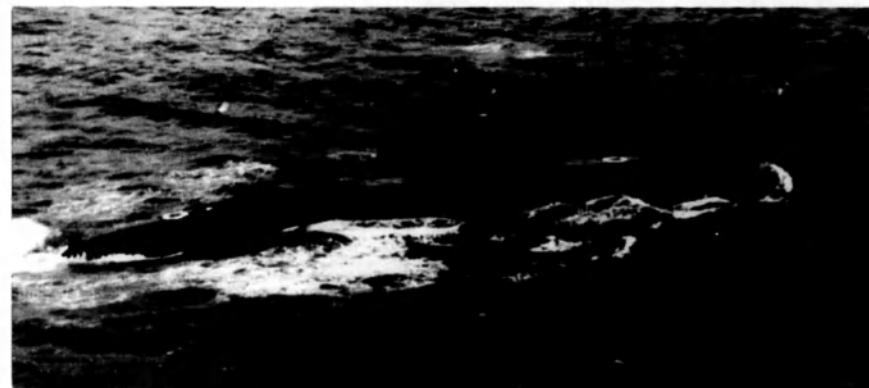


Above:
Bear F reconnaissance aircraft.

Right:
INS SAKTI refuels the frigate **INS GODAVARI**.

western systems being procured to allow their completion.

The three **GODIVARI** class frigates are an example of the Indian mix-and-match philosophy. Built at Bombay and commissioned in 1983-85, they are based on the UK **Leander** design (with substantial modifications), utilise British steam turbines and sonars, Russian SAM's, SSM's and guns, Italian torpedoes, French helicopter handling equipment



Submarine **SINDHUKIRI**, built to the Russian **Kilo** design.

Six **NILGIRI** class frigates, commissioned from 1972-81, are based on the "broad-beamed" **Leander** design. Constructed at Bombay, they were the first major combatants to be built in India. The major difference to the original design is the inclusion of a telescopic hangar to accommodate a larger helicopter, with the last two, **TARAGIRI** and **VINDHYAGI**, extensively modified to allow the operation of a Sea King helicopter. Five Russian **Petya II** class frigates comprise the remainder of the frigate force, survivors of an original class of ten. Four have been deleted with the fifth, **ANDAMAN**, sinking in heavy weather in the Bay of Bengal on 22 August 1990 with the loss of 14 crew.

The latest additions to the corvette force are the **KHUKRI** class. Designed in India, they are armed with SSM's, SAM's and a 76mm gun, all on a displacement of 1350 tonnes and a crew of 79. Four have been completed with two more under construction and a further two on



The Indian corvette KHUKRI in May 1990. Note the helicopter deck aft, but no hanger. (Photo A.D. Baker III)

THE INDIAN NAVY

order. The remainder of the corvette force is made up of Russian designed vessels, three Nanuchka II class delivered 1976-78, four Palk II class delivered 1989-91 and 9 Tarantul I class, five built in Russia and three built in India with one more under construction.

A mix of Russian and Indian built patrol craft are operated, with the largest and most modern being the seven SUKANYA class. Displacing 1890 tonnes they are underarmed with only a single 20mm Oerlikon cannon and a Chetak helicopter, however they have the capability to be more heavily re-armed in a crisis. Two further units are on order with six more heavily armed sisters in service or building for the Indian Coast Guard.

A measure of the reach of a navy can be determined by the size of its auxiliary arm, the larger its fleet of underway



Above:
RAAF photograph of the Indian Nilgiri
(Leander) class frigate, INS TARAGIRI.



Left:
The fourth Khukri class corvette seen from the
starboard quarter. Taken January 1994.

replenishment ships the greater its capabilities and the further from its home bases it can deploy. With only two 16000 tonne DEEPAK class replenishment tankers in service, India is shackled with an inadequate replenishment capability. Their ability to supply only fuel means that spare parts and ammunition resupply must await the return to port. This limitation has been recognised with the ordering of a third vessel to a modified design.

This ship, ADITYA, to be delivered in 1995, will be able to carry approximately 2170 cubic metres of stores and ammunition in addition to fuel and diesel. Additional ships would be needed



Sukanya class offshore patrol ship, INS SHARADA. A Chetak (Alouette III) helicopter is about to land. (Photo A.D. Baker III)

THE INDIAN NAVY



INS RANJIT, leads a Godavari class frigate and a Spruance class destroyer of the United States Navy. (Photo A.D. Baker III)

however, to support a carrier task force at any distance from home ports.

Mine warfare is one important element of the navy that is undergoing a

slow, but welcome, increase. Six Russian YEVENYA class inshore minesweepers and twelve Russian NATYA class ocean minesweepers are to be joined by at least

six modern minehunters. Constructed of glass reinforced plastic, these 800 tonne vessels will be built at Goa although their progress is reported to be proceeding at a slow pace.

The Indian Navy has excited the interest of commentators, politicians and naval officers around the Indian Ocean and beyond. What India describes as a navy suitable to her stature as the world's largest democracy, regional neighbours see as a threat growing ever larger. These neighbours, most vocally Pakistan, point to India's willingness to use force to support what it perceives as being its national interests, as demonstrated by Indian military intervention in the Maldives Islands and Sri Lanka. Nonetheless, despite the fears of her neighbours, India is committed to the qualitative and quantitative growth of her Navy.

The year 2005 should see India's navy operating nuclear powered submarines and two powerful carrier battle groups based around two new V/STOL carriers, escorted by modern, powerful, surface escorts and supported by a fleet of modern replenishment ships, all built to Indian requirements, in India. The continued growth of the Indian Navy over the next few years will indeed bear watching.

BARK ENDEAVOUR



Panoramic view of the Bark ENDEAVOUR arrival, taken by the Manly Daily newspaper. Every size of craft from fire-tugs to one-man jet skis came out in force to accompany the ship's arrival.



Bark ENDEAVOUR makes her way up Sydney Harbour for the Man-o-War Steps at the Opera House. To ensure arriving at the announced time, the ship used her auxiliary propulsion, in almost windless conditions. In addition to the welcoming armada, tens of thousands of Sydney-siders witnessed the scene from numerous vantage points around the long shoreline. (Photo - RAN).

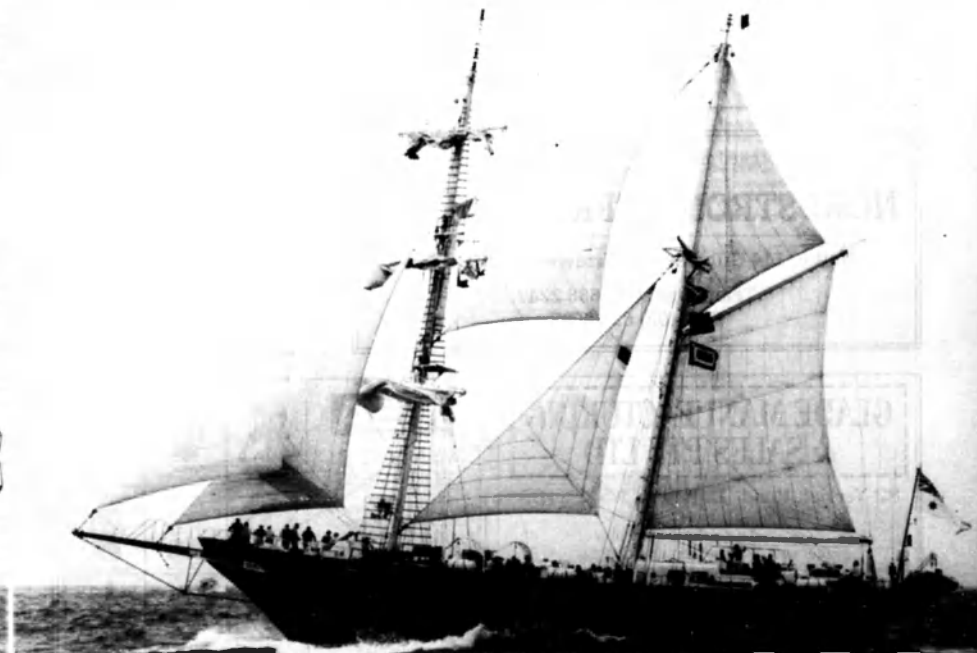


Bark ENDEAVOUR arriving off Sydney on Sunday, 18 December 1994. The ship was greeted by at least two hundred water craft as well as six tall ships.

After sailing from her place of construction, Fremantle, the previous October, ENDEAVOUR visited Albany, Adelaide, Hobart and Melbourne. (Photo - RAN).



Detailed port quarter view of Bark ENDEAVOUR. The ship had earlier taken aboard VIPs in the Pittwater, north of Sydney. The bark was then placed on exhibition at the Australian National Maritime Museum in Pyrmont. In March 1995 Bark ENDEAVOUR began her sailing programme. Later she will return to Fremantle to be refitted for a voyage to England. (Photo - RAN).



One of the tall ships to rendezvous with Bark ENDEAVOUR was the sail training ship YOUNG ENDEAVOUR, presented to Australia in 1988, a bi-centennial gift from the United Kingdom. (Photo - RAN).

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NAVAL NEWS

Navy Rescues Lone French Yachtswoman

Lone French yachtswoman Isabelle Autissier (38) was rescued from her disabled yacht *Ecureuil Poitou Charentes II* which was drifting in the Southern Ocean, by a Royal Australian Navy Seahawk helicopter on Sunday, January 1, 1995.

Operating from the guided-missile frigate HMAS Darwin, the Seahawk, piloted by Lieutenant Commander Tony Dalton, carried out the rescue in moderate weather conditions. The successful

operation was carried out some 55 nautical miles from where HMAS Darwin was holding off.

Ms Autissier was flown to RAAF Base Edinburgh by HMAS Darwin's Seahawk helicopter on Monday, January 2.

HMAS Darwin, commanded by Commander Davyd Thomas, returned to HMAS Stirling on Thursday, January 5.

HMAS Darwin was crash-landed from the HMAS Stirling naval base at Garden Island in Western Australia on the

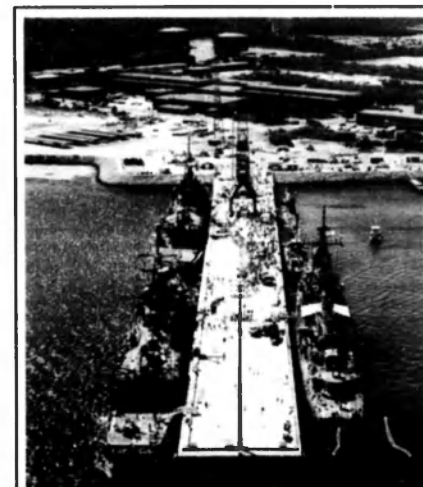
evening of Thursday, December 29, 1994 for a dash to the site of the disabled yacht which was drifting some 840 nautical miles south west of Hobart.

The rescue involved the

recall of many of HMAS Darwin's crew which were on leave and the supplementing of some of the ship's billets with personnel from other units at short notice.



The guided missile frigate HMAS DARWIN berths at HMAS STIRLING on 5 January after her return from the high speed mercy dash to rescue lone French yachtswoman, Isabelle Autissier. (Photo Navy PA - WA)



The Navy's Fleet Base West, HMAS STIRLING, held an Open Day on November 20, 1994 with its new 314 metre two-deck fleet pier being one of the popular attractions. Officially named the "Diamondina Pier" at its opening two days before, it had the guided-missile destroyer HMAS BRISBANE, the guided-missile frigates HMAS ADELAIDE and DARWIN, the submarine HMAS OVENS and the patrol boat HMAS BUNBURY alongside. A crowd of 18,000 poured onto Garden Island for the occasion. (Photo - RAN)



The former Attack class patrol boat HMAS ARDENT is now being employed as a navigation and seamanship training vessel. Her new bow number is A243. (Photo - RAN)

NEWCASTLE – Freedom of Entry

HMAS NEWCASTLE arrived in her home port on Wednesday, 25 January, at the start of her second visit to the City of Newcastle.

The ship berthed alongside Throsby No. 1 Wharf following a ceremonial entry during which an "eleven gun salute" was fired as a mark of respect to the City as the frigate moved up Harbour.

Before entering the Port of Newcastle the ship also conducted a "speed run" off the City from Merewether Beach to Nobbys Head. Such runs are normally undertaken periodically to test the performance of onboard machinery.

While in Newcastle, the ship's company provided practical support to the Hunter Orthopaedic School and on Friday, 27 January, 40 sailors from NEWCASTLE undertook a working bee at the school, cleaning up the grounds and carrying out landscaping tasks.

Navy Marches on Newcastle

The guided missile frigate HMAS NEWCASTLE was granted the Freedom of Entry to the City of Newcastle, on Saturday, 28 January.

In a tradition which dates back centuries, HMAS NEWCASTLE was given the right to march through the City "with swords drawn, drums beating, bands playing, colours flying and in full panoply and regalia...".

The ceremony was held adjacent to the Customs House in Bond Street, followed by a march through the City streets. After a challenge by the Police in Watt Street outside Customs House, the parade continued up to and then along Hunter Street where the Lord Mayor, Councillor John McNaughton, AM and Maritime Commander Australia, Rear Admiral Don Chalmers, AO, RAN took the



Freedom of Entry ceremony at Newcastle. (Photo - RAN)

salute near the Cenotaph.

The parade continued down Newcomen Street and along Scott Street before concluding after crossing Watt Street.

Background to the Freedom of Entry

Independent companies of armed men were maintained by the various land owning nobles in medieval Europe. Often there were disputes and tensions between them and the threat of occupation or attack and looting of towns and cities was ever present. Hence, whenever armed

bodies travelled the countryside they were rarely admitted to other cities. However, in special cases, some bodies of armed men were allowed the special privilege of freedom of entry to a city "with swords drawn, drums beating, bands playing, colours flying and in full panoply and regalia...". It was mark of great trust and close links between the men and the citizens of the city. At the city gates, the unit would be challenged by the guard and after production of evidence, usually in the form of a scroll from city, the unit would be granted permission to enter.

Navy Helicopter "Lands on" Pole

Motorists driving along the Princes Highway beware!

A Navy helicopter is now visible, flying at an altitude of just four metres in the southern Sydney suburb of Heathcote.

The machine in question, a former Navy UH-1B Iroquois, is the first helicopter placed on a pole in Australia for public viewing. The Iroquois was lifted onto its new "home" at the Heathcote Inn, Princes Highway on 16 December. The Naval



Iroquois 894. (Photo - Bill Cunneen)

Aviation Museum at HMAS ALBATROSS at Nowra arranged for the helicopter to be attached to the four metre high pole.

Commodore Geoff Morton, Commanding Officer of HMAS ALBATROSS officially presented the vintage helicopter to the citizens of Heathcote.

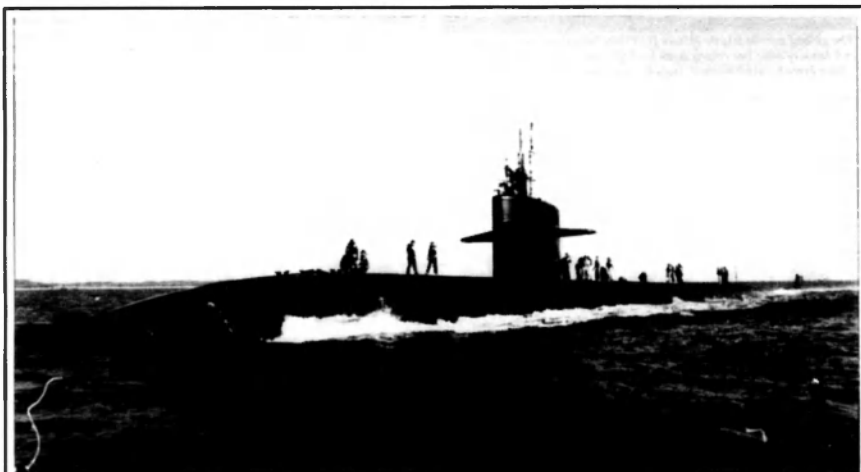
Iroquois No. 894 was first flown by the Fleet Air Arm in 1964, but on 25 November 1970 ditched into the waters

of Jervis Bay on the NSW south coast. After being raised and repaired, No. 894 was returned to operational service, before being formally retired in 1985. The Iroquois was then placed on public display at the Naval Aviation Museum.

Heathcotes most unusual tourist attraction will be visible from the Princes Highway and at night will "glow" with all its navigation lights burning brightly.



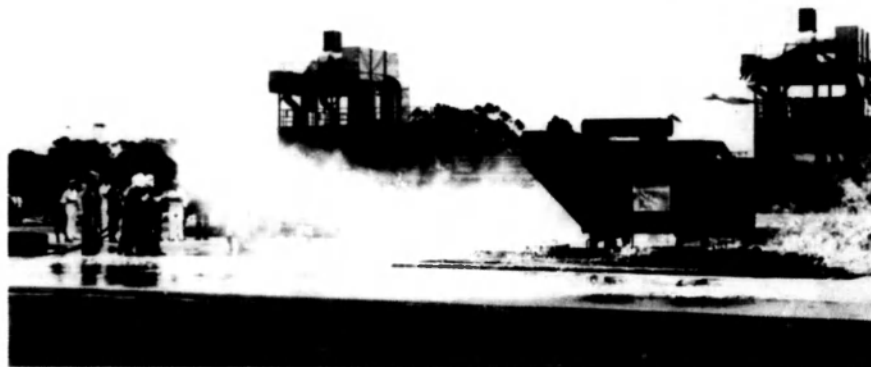
Commodore Geoff Morton from HMAS ALBATROSS at the official handover of the Iroquois to the Heathcote Inn. (Photo - Bill Cunneen)



The United States Navy nuclear-powered Los Angeles-class submarine USS INDIANAPOLIS (SSN-697) seen proceeding down Cockburn Sound on 4 November for a two day visit to HMAS STIRLING prior to her participating in "Exercise Loughish" with the RAN submarines ONSLOW, ORION and OVENS off the West Australian coast. USS INDIANAPOLIS operated from Fleet Base West between 20 October and 16 November. She was alongside for the opening of the new Australian Submarine Squadron Headquarters on 14 November. (Photo - RAN)



Five mine counter measures vessels sail from Sydney for exercise off the southern NSW coast. (Photo - RAN)



Navy Ablaze

Royal Australian Naval personnel subdued a spectacular helicopter fire at Jervis Bay in mid February.

The blaze was the major highlight at the opening of the Navy's new gas-fired Firefighting Training Facility at HMAS CRESWELL, Jervis Bay, by the Minister for Defence, Senator Robert Ray. The school's new fire fighting

training facility is geared to train all naval personnel how to fight and beat fires in ships and aircraft. The facility is gas-fired and believed to be the safest and most environmentally friendly fire training unit in the country.

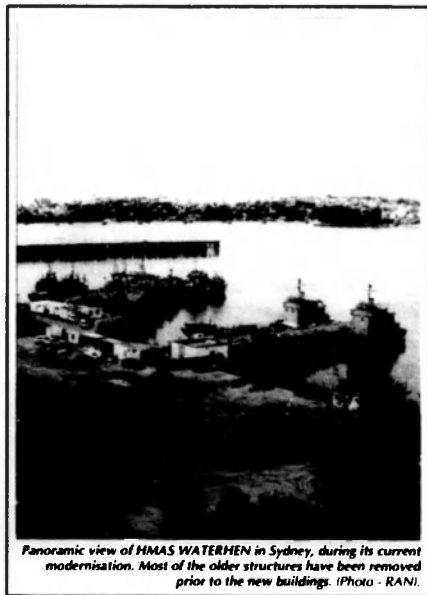
It is designed to resemble the structure of a warship, with decks, watertight doors and compartments to give students the feel of conditions

likely in the event of a fire at sea.

The gas-fired helicopter fire training facility, demonstrated at the opening was also on the site. It is capable of simulating a major crash fire, engine fire, cockpit fire ... or a combination of all three.

A central computer which

controls each individual fire, has the capacity to run, in real time, up to five training levels of increasing difficulty. The sophisticated design of the gas fired training units, enables the fires to react to the way a fire-fighting team performs, therefore allowing complete realism in training.



Panoramic view of HMAS WATERHEN in Sydney, during its current modernisation. Most of the older structures have been removed prior to the new buildings. (Photo - RAN).

Ship Ashore!

Parts salvaged from a Navy ship were formally unveiled at Garden Island on 17 February. As part of the project, the Navy expects to save \$12 million over the next five years.

The parts - including radars and weapon systems, mainly came from the former US guided missile destroyer GOLDSBOROUGH - were installed in the Navy's new Combat Systems Maintenance School, opened by the Chief of Naval Staff, Vice Admiral Rod Taylor.

Resulting from an initiative to conduct training in Australia that was formerly undertaken in the United States, the opening of this School will ensure greater self-

reliance and lower training costs for the Royal Australian Navy. The new facility houses nine functional radar and weapon systems as fitted in the RAN's destroyers and frigates.

All up, the scheme involved the purchase of GOLDSBOROUGH from the United States, stripping the ship and installing several of its combat systems in the School.

An excellent example of co-operation between Defence and private industry, the Combat Systems Maintenance School will offer all the advantages of its American counterparts while also incorporating various Australian innovations.



Left: Sporting her new shipside grey colour scheme, the trials and safety ship HMAS PROTECTOR departs the west for Adelaide to conduct a work-up with the submarine COLLINS. (Photo - Navy PA, WA).

Below: Two views of Squirrel helicopter 864, attached to HMAS NEWCASTLE. (Photos - RAN).



Charting The Northern Coastline HMAS GERANIUM 1919-1927

By Lieutenant G.J. Swinden, RAN

Launched at Greenock, Scotland on 8 November 1915 HMS GERANIUM was a Flower Class Sloop of some 1250 tons and capable of 16½ knots. GERANIUM arrived in Australia in late 1919 with her sister ships MARGUERITE and MALLOW to conduct minesweeping operations (to clear minefields laid by the German raider Wolf in 1917). The three enjoyed limited success as only one mine was swept, this being off Cape Everard, Victoria on 8 September 1919.

All three were decommissioned from the Royal Navy in Sydney on 18 October of that year and handed over to the Royal Australian Navy (RAN) as part of Britain's "Gift Fleet" to the RAN. This comprised six modern destroyers, six submarines and three sloops.

From late 1919 until decommissioned on 23 July 1927 HMAS GERANIUM was employed as a Survey Vessel in Australia's northern waters. After being paid off she lay in reserve at Sydney until 1932 when she was handed over to Cockatoo Island for dismantling. On 24 April 1935 the GERANIUM was sunk off Sydney Heads. These are the bare facts concerning HMAS GERANIUM as found in any reasonable text concerning the history of the RAN, such as George Odgers, *The RAN, an Illustrated History*. What is left out, obviously through lack of space, in these general histories is the actual history of the ship - what did she do, where did she go and who were the men who served in her.

For much of her career GERANIUM or as she was known to her crew THE GERGER was employed as a survey vessel in Australia's northern waters. The RAN Survey Service began in 1921 and GERANIUM was specially fitted out to carry out survey duties. The period between March and November of each year was allocated for survey work in the north after which THE GERGER would return south for refit and her survey data processed in order to produce new or corrected charts.

The need for adequate charts of Australia's coastline was, and still is, a necessity for the safe passage of vessels in our waters, as most of Australia's trade enters and leaves through her ports and waterways. Many of GERANIUM's surveys were to be carried out in areas where surveys had not been conducted for over 40 years. GERANIUM's first survey began in 1921 when Bynoe Harbour, Broome, Darwin and the surrounding areas were surveyed. During this first survey THE GERGER was diverted to escort the sailing vessel GWENDOLINE from Broome to Wollal. The GWENDOLINE carried several foreign scientists including a number of Swedes and Americans and their equipment to observe the 1921 total eclipse of the sun.

Surveying in the twenties consisted of a great deal of hard work for GERANIUM's

ten officers and one hundred and three ratings. Depths in shallow water were calculated by lead line - a rope with a lead weight on the end was cast into water and the depth read off from marks on the rope. Many a long day from early morning until dusk was spent in a ship's boat pulling through bays and inlets as the lead was swung to record the depth. Tides were gauged by setting up a tide pole and a party of men would be detailed off to watch the pole. Each hour for several days the depth would be read and recorded. During their off duty hours (the dog watches) the men would often gather on the fore-castle for a sing song or spend their time catching sharks, which were prevalent in northern waters. The polishing of tortoise shell and pearl shell as souvenirs for family and friends was also a popular

eyes as they were unable to completely wash the dust from their eyes and skin.

Being in harbour was not all hard work, leave or liberty was allowed and the local hotels received a large amount of patronage from the GERANIUM's men. These included the Continental and Star Hotels in Broome, the Terminus and Victoria in Darwin and the Torres Strait and Metropole at T.I. (Thursday Island).

THE GERGER's next survey was off the South West Coast of Tasmania, but in 1923 she returned to warmer climes when she conducted surveys of the Great Barrier Reef, Arnhem Bay in the Gulf of Carpentaria and Roebuck Bay at Broome. The 1923 survey was particularly interesting for several reasons, not the least of all being a mutiny of sorts. On the way north, THE GERGER called in at Cairns and leave was granted. That night some of the men who were ashore and under the influence of alcohol ran across the Captain (Commander Harry Bennett, DSO, RN) and Lieutenant J.P. Dixon, RN, and proceeded to use foul language in front on them. Later that night when Dixon returned onboard he found some oily rags and peanut shells littering his cabin. Dixon was not liked by the crew of GERANIUM, being described as "a RN man who insists on discipline and will have things just so". Some of the men do not want things just so. Remembering that the 1919 HMAS AUSTRALIA mutiny had occurred only a few years before and many Australians, not just Australian sailors were highly critical of Royal Navy discipline.

The Captain called the men together and spoke to them concerning the incident and after that there was no more trouble until GERANIUM reached Bynoe Harbour near Darwin. Here, Rear Admiral Clarkson was embarked for passage to Darwin. That night as the Captain and Admiral dined, the ship's lights failed and then a number of men began to sing, "Oh I don't want to die, I want to go home", outside the Captain's door. The Captain called all the Petty Officers together and told them to get the men under control. As an extra precaution several rifles used for shooting sharks were removed from the gunners store to a safer place.

Upon arrival at Darwin the GERANIUM, provided a guard of honour at the unveiling of a memorial to Sir Ross

The former RAN training ship HMAS JERVIS BAY sails from Sydney to begin the third phase of her career. (Photo - Tom Strasser).

Agios Andreas

Tenders for the sale of the former HMAS JERVIS BAY closed in Sydney on 30 November 1994, and the ship was sold for \$2.1m on 23 December.

During 16 years service with the RAN, JERVIS BAY provided thousands of young trainees with their first taste of life at sea, visiting many parts of the world, as part of the Australian Fleet. One of its last tasks was to ferry Australian peace-keeping troops to and from Mogadishu in Somalia.

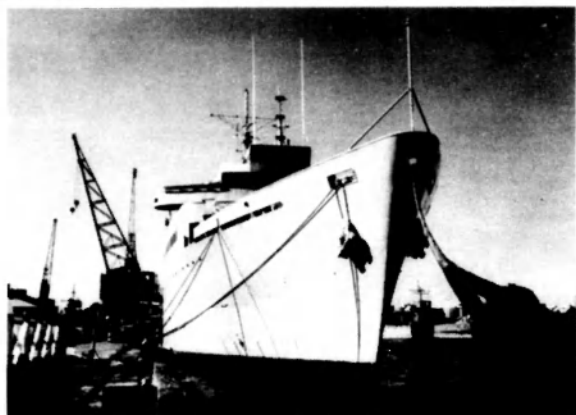
Launched at Newcastle in 1969, the ship operated as a roll-on roll-off passenger ferry between the mainland and Tasmania, named AUSTRALIAN TRADER from 1969-1976. She joined the Navy in 1977.

Having reached the end of its useful life in the RAN, the vessel was sold by tender through Purchasing Australia, part of the Department of Administrative Services.

Apart from the former aircraft carrier MELBOURNE, JERVIS BAY was the largest item Purchasing Australia had ever sold on behalf of the Government.

Under the new name of AGIOS ANDREAS and registered at St. Vincent, JERVIS BAY sailed from Sydney on Saturday, 14 January 1995. New owner, Voyager Marine Ltd of Piraeus in Greece, intended to convert the ship to a combined passenger and freight role for sailing between Brindisi in Italy and Patras in Greece.

JERVIS BAY's sale price included \$2m for the ship and \$100,000 for spares.



Alongside the ADI wharf at Garden Island, JERVIS BAY was put through a heeling trial.



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Smith, at the point where he crossed Australia on his flight from Britain in 1919. However, matters did not improve. One of the GERANIUM's men returned from leave drunk and instead of going onboard GERANIUM went aboard the steamer MONTORO (which travelled between Darwin and Sydney) and went to sleep. When found by the MONTORO's crew he did not want to leave and it took nearly two hours to remove him from the vessel.

Another incident arose when several Aborigines were brought onboard to carry out menial jobs, five were paid the price of one beer a day while the head Aboriginal was paid the price of one whiskey a day. What upset the crew was this Aboriginal was allowed to use a ladder, which was reserved purely for the use of Petty Officers and above and which, if they dared to place a foot on, would result in instant punishment.

Matters did not improve when GERANIUM put to sea and began survey work in the Gulf of Carpentaria. In the Sir Edward Pellew Group of islands, several officers went ashore and became lost in a mangrove swamp and took an entire day to get back to the ship. Another officer discovered in the scrub of Turtle Island a strange log which was painted red and yellow with plugs of mud and leaves at each end. Pulling out one of the plugs the officer found that the log had been hollowed out and contained Aboriginal remains. The log was taken back to GERANIUM where the Aboriginal workers onboard went into a frenzy, refusing to touch the log, and calling out that it contained a devil.

Nine days later the GERANIUM, whilst preparing to anchor, struck an uncharted reef near Vanderlin Island. Able Seaman Alec Chook Fowler was on the bridge at the time and remembers the event. 'At about 1530 I asked the skipper if he required the sounding machine going and he said, 'No Fowler, we've been in this area before.' I was the sounding recorder and I couldn't remember being there before, but then who was to have a better memory than an officer. The Captain then told me, 'go aft and tell No 1 the Executive



Officer! we will be anchoring in five minutes'. So I left the bridge and made my way along the boat deck and down the ladder to the quarterdeck and just as I said, 'Compliments of the Captain No 1 we are going to anchor in five minutes', when all of a sudden we hit this reef. She rolled to starboard then to port straightened up with her snout up in the air and her stern partly submerged. No 1 said, 'Fowler I think we are well and truly bloody well anchored'. Well it was all hands to the pumps and what ever could be spared had to be moved aft. All the heavy gear from the mining room, amidships below the messdeck was manhandled off'.

Commander Bennett put out two anchors, and hauled in the cable by the

capstan to pull the GERANIUM off the reef. One cable parted but the other remained firm and enabled THE GERGER to get off the reef. The anchors had to be set by hand, each being taken out and set by one of the ship's boats. Once off the reef THE GERGER's troubles were not over. She began to take water through several holes in the hull but fortunately these were plugged by divers with cement, which was used onboard for making survey benchmarks.

GERANIUM then made passage to Thursday Island, but encountered bad weather. After this, it was decided to take the Aboriginal remains ashore as many of the crew believed they were responsible for pinning the ship. Even as the remains



were being taken ashore the cutter in which they were being carried was accidentally rammed by a Pearl lugger.

Later, off Moreton Bay, heavy weather was encountered and THE GERGER had to put into harbour.

Finally, GERANIUM reached Sydney, the ship docked and repairs were made. This survey cruise was over and many a sigh of relief was breathed. The cruise had not been a total disaster. Adequate surveys had been conducted and several types of fish not known to exist in Australian waters had also been discovered.

By October 1923, GERANIUM was again in northern waters on survey work and on 12 October towed the passenger vessel MONTORO off Young Reef in, the Great Barrier Reef.

In 1924, GERANIUM embarked a Fairey IIID float plane for use in survey work, thus becoming the first Australian ship to use an aircraft in survey work. In 1925, a second survey vessel, HMAS MORESBY, commissioned. From 1925 until 1927 GERANIUM and MORESBY operated together in northern waters.

One of THE GERGER's last actions

before decommissioning was on 13 May 1927 when she towed the passenger ship TASMAN off a reef at Clarke Island. On 23 July 1927, GERANIUM was paid off into reserve and later sunk. There is little to remind Australians today of the valuable work done by the GERANIUM. One of her ship's company, was so proud of her, he even burst into verse, detailing THE GERGER and her activities:

HMAS GERANIUM

When World War I had ended and peace had been restored,

Three sweepers of the Flower class came under Navy Board.

Two to sweep our coastline, destroying enemy mines

The other one for survey work in our Northern climes.

The "Gerger" was selected to map our coast and Bays

And modernise the many charts made in earlier days.

From Darwin down to Bynoe, from Broome to Arnheim Land

From early morn till late at night, the lead was heaved by hand.

From point to point on an endless track
Pulling oars and straining the back.
In the bows of the boat the leadman keeps

Alert of mind, to call the marks and deeps.

After many weeks of labour - to Port for liberty

Then back upon the survey ground,
recording accurately

The shoals, reefs and shallows and hazards of the sea

To make it safe for other ships, to travel trouble free.

On shore the "Tide Pole Party", hourly note the tide

Registering the rise and fall, a pole their only guide.

A relief from sounding party, billeted on land

Awake, they keep their vigil, from tents pitched on the sand.

Eight months of constant toiling, then for Sydney bound

Suspension of "hard layers", instead long leave is found.

A routine which created, a brotherhood of man

By working close together, when survey work began.

The "Gergers" work is forever, plotted on the chart

Around Australia's coastline, many poles apart.

Ships now travel on routes the "Gerger" pioneered

With men of the Survey Service who worked and persevered.

- Chief Petty Officer Lovell Mears Boxsell, as published in Open Sea.

A more poignant reminder is on Soldiers Point on Melville Island's east coast. There lie several rusted iron poles and a concrete bench mark bearing the inscription HMAS GERANIUM 1917. But perhaps her most notable legacy are the charts that were produced from the data she collected. Although now updated, they were for many years the only reliable charts for navigation in our northern waters.

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ALMA DOEPEL, taken in December 1959. (Photo - L. Rex)

Good Ship "Alma Doepel"

Sleek hulled "ALMA DOEPEL" was once a famous schooner. Three-masted, full of sail, she held the Hobart - Port Phillip crossing record.

She was pretty under canvas, with the wind behind her and water curling from shapely bows – so pretty she caught the fancy of artists. Paintings of her hang in more than one Australian hotel.

One day recently she put out of Sydney bound for Brisbane and many points north. But they didn't call her the "Alma Doepel" then. She had a symbol on her bows and across her boat deck – a big AK82. She carried engines instead of sail and a high wheel house and bridge. They spoilt her lines a bit, but they were modern touches.

Scars and chips and cracks in her hull were buried beneath putty and brand new paint. She was grey from mast tip to rudder.

The "Alma Doepel" was on active service.

The army's sailors manned her, men who in peace days were shearers, cooks, solicitors, counter hands, horse breakers and apparently everything except seamen. But now they were talking of galleys instead of kitchens, watches instead of fatigues, and they studied charts in place of maps.

Of course, affectionately they called her "Dopey Alma", but they were proud of her. She was making her maiden voyage under the flag of the Water Transport branch of the Royal Australian Engineers, which controls the army's small craft.

Lap entry into the war caused the birth of army small craft. Island fighting meant little ships to get to places where troops were likely to be stationed. Those little ships would have to carry stores and equipment, sometimes men; be able to dodge around reefs, in and out of bays where larger vessels could not go.

Willing men from all units of the army were transferred. Above all, this new branch was looking for fellows who had had pre-war experience with ships in the islands, and it is perhaps not surprising that they were found in hundreds.

But they were wanted in thousands and so men from all walks of life, who thought they would like to try the army in a different role, volunteered.

That wasn't much over two years ago. Today they are sailing ships of over 300 tons.

When the army took over the old "Alma", contractors stripped her, leaving only the heavy foremast sticking above the hull. They added cabins, installed engines, put in armament, a bridge and wheel house. Army tried her out, did more things and made her a better ship.

AK82 – AK stands for army ketch – weighed 150 tons, with a 105 feet length at the waterline. Crow's nest of the big mast was 65 feet above water, one of the causes, said an old seaman on board, that made her buck in a seaway.

There was the usual fore-castle with bunks and tables, the home of the soldier-seamen, comparatively comfortable, decidedly small. A big hold took up the rest of below-deck space to the engine room, a neat place of green paint and shining copper and bright moving wheels,

but hot and noisy; certainly no paradise when water poured in while rounding the location of Captain Cook's troubles – Cape Tribulation.

Alt, was the master's cabin, high but poky, with cupboard doors for walls, filled by radio sets, a zunk, a table where charts were prepared.

Above deck was the forward ward room, or in other words, the sergeants' mess, the bunks of the first, second and third engineers and bosun, and a table fitting it ... then the galley, so small that one should be a Dante to work in it, the four by three-foot space being taken up by a fuel stove and bench.

Then the aft ward room, or officers' mess, an oblong seven by four, the greater part housing a kerosene refrigerator, which didn't work properly because kerosene refrigerators, instructions say, have to be set and kept level. Travelling level was not a habit of the AK82.

From Army: June-July 1945.

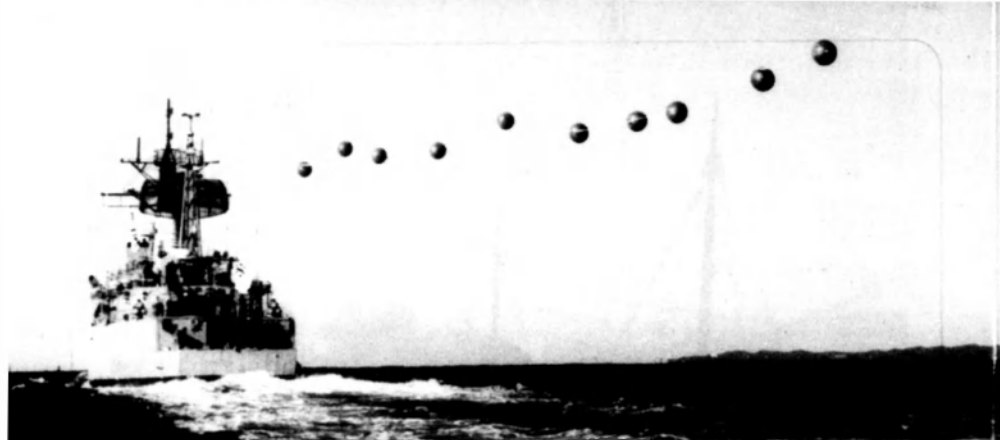
History Revisited



A member of the North Coast Steam Navigation Company, the 1911 vintage coaster COOLEBAR also served as an auxiliary minesweeper.



SS PATERSON under repairs at Walsh Island in Newcastle prior to her service with the RAN in the Second World War. PATERSON was employed as an auxiliary minesweeper. (Photo - Newcastle Maritime Museum).



Last day in commission, HMAS DERWENT, 8 August 1994. (Photo - Navy PA, WA).

DERWENT IN THE DEEP

By Vic Jeffery

The battered hulk of the former Royal Australian navy destroyer escort DERWENT was sunk 15 nautical miles west of Rottnest on Wednesday, 21 December, after being towed into position by the medium naval tug TAMMAR.

Scuttled in the Rottnest Trench at 2.30pm (local time) the ship now rests in 200 metres of water after a number of small explosive charges were detonated inside the ship's hull.

Divers from Australian Clearance Diving Team Four were removed off the

ship around 1.30pm after setting the demolition charges.

DERWENT now forms a fish attracting device with local angling groups claiming it will become a haven for a great deal of marine life and help keep marlin and yellow-tin tuna in the area.

Since its decommissioning at HMAS STIRLING on August 8, 1994 DERWENT has undergone a unique series of survivability tests carried out in conjunction with the Defence Science and Technology Organisation.

Initially it was proposed to sink



DERWENT slips below the waves. (Photo - Navy PA, WA).



DERWENT is shrouded in smoke as a series of pre-set demolition charges are set inside the ship. (Photo - Navy PA, WA).

DERWENT IN THE DEEP



Above:
The battered hulk of the former destroyer escort DERWENT is towed to her watery grave off the West Australia coast. (Photo - Navy PA, WA).

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DERWENT as a recreational diving wreck off the WA coast, this concept being abandoned when the ship was considered too dangerous to be suitable for use as a dive wreck.

DERWENT sank in two minutes and 55 seconds.

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The mothballed destroyer USS DECATUR refitted as a demonstration platform for the United States Navy's new self-defence systems.

Final Role – USS Decatur

The U.S. Navy plans to use a former warship as a test platform to demonstrate the effectiveness of the service's burgeoning ship self-defence efforts.

By using a remotely controlled warship, the Navy will be able to conduct more realistic and dramatic tests, aiming actual anti-ship cruise missiles at the test ship to gauge the effectiveness of its ship self-defence systems, service officials said.

The Navy has long been stymied in its efforts to test sophisticated antiship cruise missiles against real ships because of safety concerns and the reluctance to potentially damage active warships, service officials said.

Having a ship dedicated to testing will address many of the long-standing concerns about the capability of the self-defence systems the Navy is developing and will make those systems more effective, James Whalen, program manager for ship self-defence systems at the Naval Sea Systems Command, Arlington, Virginia, said in a December 12 interview.

"I think with a manned ship you just have to put on so many limitations that you always leave a fairly broad gap of credibility about whether this system will really act correctly in wartime," Whalen said.

"Being able to test all the way to final firing adds credibility," he said.

The Navy has taken the mothballed destroyer USS DECATUR and revamped it to serve as a test ship.

The former warship was essentially gutted internally with its entire engine system and weapons removed from the ship.

A new remotely controlled engine was installed that allows the ship to achieve speeds of about 8 knots, Whalen said.

Martin Marietta Services Group, Cherry Hill, New Jersey, refurbished the ship and will provide ongoing maintenance and support to the program, company officials said.

"We install and integrate all the combat systems to be tested on the ship," Neal Linkon, company spokesman, said December 13.

Congress added \$11 million to the Navy's 1995 budget to speed the integration of a full Ship Self-Defence System (SSDS) into the test ship to ensure that the future system is fully tested.

The extra funding will help speed the installation of a complete SSDS suite for at-sea testing, Whalen said.

The system is destined for deployment aboard virtually every class of warship, amphibious assault ship and aircraft carrier.

While initial tests of SSDS were successfully conducted in 1991 aboard the amphibious assault ship USS Whidbey Island, the fact that it was an active ship limited the kinds of tests that could be carried out, Whalen said.

The tests proved the system's architecture was sound, but couldn't

measure the system's reaction time or if the amount of firepower was adequate.

Until SSDS is deployed, the test ship will be outfitted with the Phalanx close-in weapon system, the NATO Sea Sparrow anti-air missile and an electronic warfare suite, Whalen said. The Rolling Airframe Missile will be added to the ship over the next year, he added.

Having a dedicated test ship also will speed the schedule for testing critical elements of the SSDS, Whalen said, because the Navy will no longer be forced to wait for an active ship to become available to perform the tests.

With the overall number of naval ships declining, it is becoming more difficult to find ships available for testing, Whalen said.

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THE KAISER'S PIRATES – German Surface Raiders in World War One

By
John Walter
Reviewed By
Joe Strazek

Mr Walter has written an interesting book on a naval aspect of the First World War which is usually glossed over in favour of battles such as Jutland and the Falklands. The German Navy's operations against Britain's sea lines of communication almost cost Britain the war. These operations consisted of the use of surface vessels and submarines. Mr Walter's book examines the operations of the former.

In his lengthy, but very valuable, introduction the author provides an overview of the naval and maritime environment at the outbreak of the Great War. He covers such issues as the development of the German Empire, the importance of commerce, the development of the turbine and the E-tappe system. In many ways this introduction helps set the stage for the second part of the book.



The second section of Mr Walter's book deals with the individual ships engaged in commerce destruction. The technical details are given for each ship. This is followed by a detailed narrative of the career of the vessel. This section is supported by a fine selection of photographs showing the ships concerned and other vessels, either prey or ultimate nemesis. Details of lesser raiders are provided in an Annex at the back as are details of vessels sunk or taken as prizes.

Some of the raiders described have important historical connections to the RAN. EMDEN was sunk by HMAS SYDNEY. HMAS PIONEER was involved in



operations which saw the destruction of the KONIGSBERG, HMAS BRISBANE's hunt for the WOLF. Like EMDEN a number of the other German ships were the ships of the German Pacific Squadron which HMAS AUSTRALIA and other units of the RAN searched for in vain during the opening stages of the war.

The presentation of the book is very pleasing with two exceptions. The bibliography, normally found at the back is located in the front of the book and half way through the histories of the individual raiders is a list of German warships on colonial stations. Both of these would have been better placed at the rear of the book.

The author's, or more possibly publisher's, use of the term pirates is very misleading. These were men of war engaged in the destruction of an enemies military capabilities. If they were pirates then so to were British men of war engaged in the destruction of German merchant shipping.

In many ways the commerce raiders of the Great War were victims of technology. Unlike their sailing predecessors they required constant supplies of coal to remain operational. Their presence in a given area could be broadcast to the world through the use of radio, thus attracting the unwanted attention of enemy warships. While some of the achievements of these ships were spectacular their overall contribution was not large when compared to the submarine.

"The Kaiser's Pirates", is, apart from the title, a very well written, illustrated and researched book which helps to contribute to an aspect of the Great War generally overlooked. The book should appeal to a wide range of naval enthusiasts and is highly recommended.

☆☆☆

WARSHIP 1994

Edited By
John Roberts

Published By
Conway Maritime Press

Reviewed By
Ross Gillett

☆☆☆

ROYAL AUSTRALIAN NAVY

Profile No. 4
New Construction Ships
and Auxiliary Vessels

By
Michael Wilson

Published By
Topmill Pty Ltd
102 Victoria Road,
Marrickville NSW 2204

Reviewed By
Tany Matterson

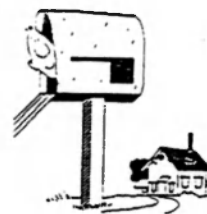
Navy Profile No. 4, just released by Topmill, is the largest of the series so far published. The Profile describes the new construction ships of the 1995-2004 period and the ocean-going and harbour support vessels in service since 1911.

For many years now naval enthusiasts have been

these ships begins the 1994 edition and provides an interesting description of the vessels and their capabilities, especially when one compares them to the Victorian and later RAN monitor CERBERUS.

Chapters are also devoted to the Royal Navy's Abdiel class fast minelayers and the origins of Canadian Carrier Aviation, with all illustrations accompanying the text of the highest quality. As usual the editor has described the year's new construction, deletions, modernisations, activities and aviation aspects in The Naval Year in Review. Naval Books of 1994 and Warship Notes complete another fine annual.

Conway have over the years become renowned for the quality of their naval books. This policy continues into 1995.



WARSHIP



searching for a low cost series of RAN profiles. At only \$12.95 per booklet, this is just the set. The profiles portray the growth in individual ships and the larger classes via a comprehensive historical and technical narrative. This latest in the series, No. 4, continues that trend, with additional colour pages to illustrate the new Collins class submarines, Anzac class frigates, Huon class coastal minehunters and the two recently purchased helicopter vessels, KANIMBLA and MANOORA.

The support ships are subdivided into the ocean/coastal and harbour service types

from the well known and long serving PLATYPUS and JERSV BAY through to the "maids of all work", the versatile general purpose vessels and motorised lighters.

For this profile, various tables set out the basic technical specifications of all of the purpose built units with an additional annex devoted to ship's names and pendant numbers. Photographically, Profile No. 4, New Construction Ships and Auxiliary Vessels, more than matches the earlier publications, with all of the black and white images well produced on quality paper.

L A T E N E W S

Seven South East Asian Nations In Australian Sponsored Maritime Event

Ships, aircraft and more than 5000 military personnel from seven South East Asian countries came together in a major fleet concentration period in north Australian waters during March.

Maritime units from the defence forces of Australia, New Zealand, Malaysia, Singapore, Thailand, Indonesia and Hong Kong (United Kingdom) gathered in the Timor Sea for a range of training activities and manoeuvres. Naval observers from the Philippines brought to eight the number of countries represented in Fleet Concentration Period (FCP) KAKADU 2.

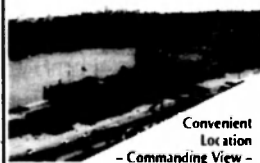
KAKADU 2 is the second Fleet Concentration Period in the KAKADU series, the first having been conducted in 1993. FCP KAKADU 2 represented more than twice the number of maritime assets and personnel as KAKADU 1, being primarily an Australian work-up activity before Australian units deploy to South-East Asia.

The FCP, which was centred on Darwin, provided an opportunity for bilateral activities between Australia's maritime forces and those of our South East Asian neighbours. The concentrated training environment of the FCP, rich in maritime assets, benefited all participants and was another example of increasing defence co-operation in our region. Apart from general training in damage control and communications procedure and interaction between air, surface and subsurface assets, the FCP provided a wide range of other opportunities including personnel exchanges and work in explosive ordnance disposal techniques used by clearance divers.

FCP KAKADU 2 involved 22 ships, 2 submarines and maritime patrol and fighter aircraft and helicopters. For the first time, an Indonesian warship participated in the FCP KAKADU series with the TNI-AL Frigate KRI FATAHILLAH participating in the Harbour Phase of activities in Darwin.

FCP KAKADU 2 began on 13 March and concluded on 31 March.

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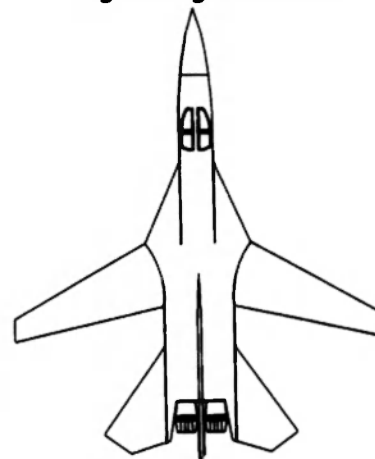
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